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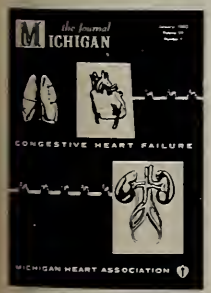

THE COVER . . . Heart associations across the nation plan this year to expand their educational effort for physicians on congestive heart failure. Future plans will include an education program stressing congestive heart failure and what can be done about it.

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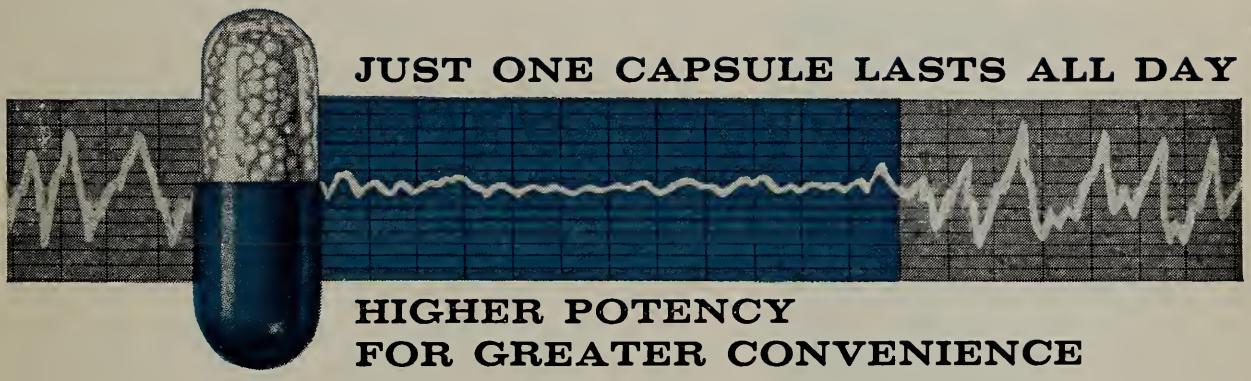

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NEW DECADE,
NEW CHALLENGES

President's Page

Milton A. Darling

President
Michigan State Medical Society

To each member of the Michigan State Medical Society, our heartiest greetings and best wishes for good health and happiness throughout this New Year!

Another decade is behind us and we may well pause to take inventory of some of its problems, as well as its accomplishments.

Through our ever-widening community activities we have established a closer liaison in matters of public health, accident prevention, polio, cancer and diabetes control—all factors in improved public relations. New techniques in the field of cardiac surgery have brought acclaim to doctors in our state.

In the difficult field of medico-economics we have made material contribution, but eternal vigilance is necessary.

We have discovered that by extending life expectancy to an astonishing degree, we must assume leadership in helping solve the consequences. Our elder citizens need and deserve our unfailing support and cooperation.

Increasing emphasis has been put on the necessity for graduate medical education with convenient locations for further study arranged geographically. Michigan health conferences are proving of great value, also.

Without any crystal gazing, we willingly accept the challenges of this new decade.

1960 Michigan Clinical Institute to Stress Practical Applications

Speakers at the 1960 Michigan Clinical Institute will give special emphasis to the practical application of new medical advances, reports General Chairman R. J. Hubbell, M.D., Suttons Bay.

The total program, he said, was planned to help the practicing physician in his daily work.

The refresher course will begin Tuesday noon and end Friday noon, March 8-11, at the Sheraton-Cadillac Hotel in Detroit.

The opening session on Tuesday afternoon will feature scientific papers on cancer. Wednesday will be General Practice Day with a special afternoon program devoted to trauma. Juvenile delinquency will be discussed by a panel of eminent men on Wednesday evening. Thursday morning will feature speakers on heart and rheumatic fever. The latest developments in the field of internal medicine will be covered in the afternoon. Friday morning speakers will report new advances in obstetrics and gynecology.

For the convenience of MSMS members who will be attending the MCI refresher course, the Committee on Arrangements has placed the registration desk on the fourth floor with the technical exhibits and scientific assembly.

Operating Room Nurses Institute

The Operating Room Nurses Conference Group of the Michigan State Nurses Association will sponsor a two-day institute on March 10 to 11, 1960, to coincide with the Michigan Clinical Institute.

Some of the subjects to be included in the institute are:

"Operating Room Nursing in Disaster" (with a first-hand report of the activities which took place in the operating room of Hurley Hospital, Flint, during the tornado in that city).

"Psychological Aspects of Operating Room Nursing"

"Care of Cystoscopes and Bronchoscopes"

"Management of Problems in Cardiac Arrest"

"Basic Principles of an Orientation Program"

The nurses planning this program wish to emphasize that all registered professional nurses are cordially invited to attend.

Further information will be published in the *Michigan Nurse*, official publication of the Michigan State Nurses Association, and will be sent to all hospitals in Michigan.

Other Meetings During MCI

Michigan Diabetes Association
Thursday, March 10, 4:00 p.m., Dinner meeting

Michigan Society of Clinical Hypnosis
Wednesday, March 9, 6:00 p.m., Dinner meeting

Michigan Heart Association
Friday, March 11, 3:30 p.m. meeting

Michigan Chapter American Academy of Pediatrics
Tuesday, March 8, Morning and afternoon sessions—Children's Hospital
7:00 p.m., Dinner and speaker—Sheraton-Cadillac

Michigan Epilepsy Center and Association
Thursday, March 10. 5:30 p.m., Dinner meeting

Michigan Proctologic Society
Thursday, March 10, 6:00 p.m., Dinner meeting

Operating Room Nurses Institute
Thursday and Friday, March 10 and 11

Alumni Association
Wayne State University Medical School Alumni Association
March 8-11, Hospitality Suite

MSMS Schedules Seminar For County Society Leaders

The Annual MSMS County Secretaries-Public Relations Seminar will be held in Detroit on Saturday and Sunday, January 30 and 31, 1960 at the Sheraton-Cadillac Hotel.

Participants at this seminar will include county medical society presidents, presidents-elect, secretaries, editors, public relations committee chairmen and executive secretaries, plus members of The Council of the State Society.

Here are some of the highlights:

The Saturday afternoon session will cover "The Problems of the Aging and the Challenge of Forand Legislation." National and local speakers will discuss the role medicine must play to make certain that government-dominated medicine is to be averted.

The Saturday night dinner will be sponsored by MSMS to honor Michigan doctors who are presidents of national medical or health associations. This is a new feature of the Seminar, moved up from the Michigan Clinical Institute.

Sunday morning will feature a discussion on the federal tax aspects of medical society activities and a panel on medical society administration and services.

Editors of county medical society bulletins will meet Saturday for a special Editors' Workshop designed to aid in improving all component societies' publications.

Attorney Urges Medical Examiners

An address advocating medical examiners as opposed to coroners was delivered at the Kalamazoo Academy of Medicine meeting by Jacob A. Dalm, Jr., Kalamazoo County prosecuting attorney.

"What is needed is a pathologist who has medico-legal training and experience," Dalm told the 150 local academy members who attended the monthly dinner meeting at the Hotel Harris.

Dalm, who emphasized he was not criticizing the Kalamazoo County coroner system because the local coroners are doctors, termed the basic failing of the coroner and his jury the "inability to cope with the medical problems their tasks involve."

In discussing the current status of the medical examiner, he pointed out that nineteen of eighty-three Michigan counties, containing 65 per cent of the total state population, have adopted the newer system in this area. Of the sixty-four without medical examiners, fifty-seven have coroners who are laymen.

A recommendation by the Kalamazoo Academy was delayed to permit consideration by the membership.

RVS Hearings Soon

The next step in the Michigan Relative Value Study project will be a series of hearings with representatives of the various specialty groups.

The Michigan relative value scale questionnaire was mailed to every member of MSMS in November. The dollar charges reported by the doctors were fed into tabulating machines and converted into value units. These value units show relationships between the various professional services.

The MSMS Relative Value Study Committee now will invite the representatives of the special groups to attend conferences to discuss the tabulated information.

MSMS currently is using a modified relative value scale as established by the California Medical Association. At the time of the adoption, it was decided that MSMS should develop its own scale through an independent study in order to accurately and fairly reflect medical practices in Michigan.

Clarence Cook Little, Sc.D., *(right)*, beams with pleasure as he receives the annual citation presented to the Andrew P. Biddle lecturer. G. B. Saltonstall, M.D., did the honors following Dr. Little's address at the MSMS annual session.

HIGHLIGHTS of MSMS Council Meeting

Seventeen members of The Council attended an all-day meeting November 18, 1959 in the David Whitney House (Wayne County Medical Society headquarters) Detroit, and considered eighty-three items, chief in importance being:

- Financing of the new MSMS building: Treasurer Hyland reviewed progress to date in arranging financing of the new building, advising that a line of credit had been established with a Michigan banking institution at a favorable rate of interest for three years with extension privileges, the money now available as a loan without mortgaging the property. The treasurer was complimented for his arrangement of this transaction.

  For protective purposes, a seventy foot strip of land next to the MSMS building was authorized to be purchased as well as a small parcel of farm land adjoining the northwest corner of the new site, to complete the quadrangle.

  K. H. Johnson, M.D., Lansing, the local representative of the Big Look Committee, was authorized to consult with the realtor re-establishing a new listing price for the MSMS property at 606 Townsend.

  Report on furnishings for the new building was presented by a representative of Architect Minoru Yamasaki & Associates. The matter was referred to the Big Look Committee and the Finance Committee with power to act.
- Medicare: L. Gordon Goodrich, Executive Vice President of Michigan Medical Service, reported that, although Medicare payments were less this year than in previous years, services would be restored by January 1960 which would increase private practice under this program.
- Editor Wilfrid Haughey displayed an aluminated scroll awarded to THE JOURNAL of the Michigan State Medical Society for having the best covers of any state medical society journal; the award was made at the State Medical Journal Advertising Bureau Conference, Chicago, October 27.
- President Milton A. Darling, M.D., Detroit, reported on his attendance at the AMA Regional Conference on Aging, Cleveland, October 28.
- A letter from the Wayne County Medical Society regarding a ruling of the Michigan Department of Social Welfare which precludes social welfare funds to agencies that receive money for care of recipients of public assistance, was thoroughly discussed. The Council supported the Visiting Nurse Association and the Wayne County Medical Society's stand in this matter on the basis that home care is much more economical than hospitalization.

  Appointments:
- The name of A. H. Hirschfeld, M.D., Detroit, was nominated to Governor G. Mennen Williams to serve on the Citizens' Advisory Committee on White House Conference on Aging; Ralph L. Fitts, M.D., Grand Rapids, and Harold W. Woughter, M.D., Flint, were appointed to Geriatrics Committee; Sherwood B. Winslow, M.D., Battle Creek, was nominated to the Medical Advisory Committee of Michigan Hospital Service (to fill the unexpired term of the late Ralph W. Shook, M.D.). O. B. McGillicuddy, M.D., Lansing, was made a member of the Michigan Clinical Institute Press Committee.
- Legal Counsel Lester P. Dodd, presented five legal opinions; a report on a minor survey discrepancy covering the new MSMS property, corrected by quit-claim deeds; and a proposed amendment to MSMS Bylaws, Chapter 10, Section 1 (which was referred to the House of Delegates Committee on Constitution and Bylaws), covering time of election of Council officers.
- The Committees of The Council, including the three standing committees, were, as appointed by A. E. Schiller, M.D., Detroit, confirmed by The Council.
- The Council, upon the recommendation of the Wayne County Medical Society, urged the Michigan Association of the Professions to testify at the forthcoming McNamara Hearings on the Aged, to be held in Detroit, December 10 and 11.
- Public Relations Counsel H. W. Brennamen reported on MSMS exhibits at the state and county fairs with recommendations for 1960; on the McNamara Hearing in Grand Rapids; on the family doctor TV presentation in Kalamazoo and in Grand Rapids; on plans for the annual upper peninsula tour of MSMS Officers; on the MSMS representative to organizational meeting of Michigan State Chamber of Commerce; on the four Michigan regional health conferences; on the new handbook for councilor district medical care insurance committees; and on MAP's "Congress of the Professions" to be held in Detroit, January 22-23.
- A. E. Heustis, M.D., Lansing, Michigan, Health Commissioner, reported on several matters of mutual interest to his Department and to the Michigan State Medical Society.

- The monthly financial reports and bills payable were presented, considered, and approved.
- Committee Reports.—The following were presented: Councilor District Medical Care Insurance Committees of the Twelfth and Thirteenth Districts, meeting of September 3; and of the Second District, October 28; Big Look Committee, October 18; National Defense Committee, October 21; Committee on Arrangements for the 1960 Michigan Clinical Institute, October 22; Maternal Health Committee, October 29; Mental Health Committee, November 5; Advisory Committee of Past Presidents, September 30; Awards Committee, November 18. The minutes of the Permanent Conference Committee (not a committee of MSMS) meeting of October 28 were received.

Re-registration Fee Due

Michigan physicians who have not mailed their "re-registration form" to the Michigan State Board of Registration are urged to do so at once. The forms were mailed to each physician, January 11. If you need a form, please write the Michigan State Board of Registration in Medicine, Stevens T. Mason Building, Lansing.

The Michigan State Board of Registration in Medicine has announced that because the re-registration forms were mailed out late, "the Board has waived the penalty fee of $5.00 on this initial re-registration provided the fee is received prior to March 1, 1960."

Schedule of Meetings of MSMS Council for 1960

Thursday, Friday, Saturday, January 28-29-30	Sheraton-Cadillac Hotel, Detroit
Monday, March 7	Sheraton-Cadillac Hotel, Detroit (before Michigan Clinical Institute)
Wednesday, April 13	Peninsular Club, Grand Rapids
Wednesday, May 18	Detroit Golf Club, Detroit
Wednesday, June 22	New MSMS building, East Lansing
Thursday and Friday, July 14-15	Grand Hotel, Mackinac Island
Wednesday, August 24	New MSMS building, East Lansing
Saturday and Sunday, September 24-25 and Thursday, September 29	New MSMS headquarters (Dedication on Sunday, September 25); Sheraton-Cadillac Hotel, Detroit
Wednesday, November 16	New MSMS headquarters
Wednesday, December 14	Great Lakes Club, Detroit

For the first time, there was 100 per cent attendance at the opening session of the 1959 House of Delegates. The three officers are *(front row, left to right)*: D. Bruce Wiley, M.D., secretary; Kenneth H. Johnson, M.D., speaker, and J. J. Lightbody, M.D., vice speaker.

The Dangers of Governmental Health Service

By Rolf Schlogell, M.D.

Cologne, Germany

(Because of the importance of this subject, The Council of MSMS directed that excerpts of Doctor Schlogell's remarks be reprinted. The talk, delivered in Chicago, August 20, 1959, has been condensed by R. W. Teed, M.D., chairman of the MSMS Public Relations Committee.)

Whenever protection against social and economic risks of illness is provided in any way other than the personal savings fund of the protected person, three participants are involved, namely: (a) the protected person who is the potential patient of the doctor, hospital, and so on; (b) the carrier of the protection, and (c) the individual doctor, himself. Hence, in the government health service the participants become: (a) the entire population, or at least a major percentage of it; (b) the government or the administrative governmental authority; and (c) the medical profession.

When you recognize the various aspects and difficulties that arise between the three participants under an insurance system, consider how much more complicated and difficult it will become when the state, itself, becomes the third participant and, in so doing, automatically loses its neutral position as a mediator between the groups or between individuals.

* * *

THE DANGERS OF THE government health service are obvious. Let me begin with the material dangers or arguments, which are more apparent than the idealistic.

In every government health system there is a vast financial danger. By this I do not mean the excessive growth of the cost originating from the government health system—an excellent example being the British National Health Service, in which the budget figure for this year was 650 million pounds ($1,821 billion).

I believe that we have already resigned ourselves, in too great a degree, to our fate by complying with the complicated machinery of today's social life in surrendering our individual freedoms in order to guarantee a frictionless living together as a whole.

* * *

ALREADY MANY OF US HAVE, in this way, lost the ability to judge whether or not the abandonment of rights and freedoms is worth the personal price we pay. If we really believe in the Western ideals of freedom, we should most earnestly consider whether or not the abandonment of personal freedom is really an advantage to the whole public, and whether these advantages are far greater than their inherent dangers. This decision can be reached only after careful consideration.

The dangers that arise from a government health service must be seen, especially when it deprives groups of people (economically and socially capable of making their own decisions as to the type of health protection they desire for themselves and their families) of the freedom to choose and literally forces these people into a governmentally-administered system.

A vast difference exists between the legislation that requires people, who can afford to protect themselves against the risks of illness, to invest their own funds in order to insure themselves, and the legislation that forces these same people into a system administered and financed by the state, itself.

* * *

THE FIRST METHOD provides each person with the right to choose the kind of protection he desires. The second method destroys the freedom of decision.

Ever since institutions for providing protection against the risk of illness and its economic consequences were developed in Central Europe, consideration has been given to whether or not, and to what extent, the preservation of freedom is possible or desirable in these institutions, or if the limitation of freedom is necessary with respect to the so-called higher interests of the public.

Health and illness are among our most individual traits. Health is a changing, surging condition divested of any normative measure. Health is not a commercial commodity but a highly complex and complicated state which cannot be collectively evaluated nor regulated. Illness, as the negative aspect of health, must be classified in the same category. It cannot be analyzed in the same manner as a defunct engine. The cure of illness does not lie in a legal claim, nor is health a purchasable right. Health is a gift from God.

Psychology has demonstrated the extent to which illness and health are individual conditions. Hence, if it is true that individual conditions cannot be collectively treated, it is our duty to prevent the dangers inherent in equalization procedures.

* * *

THE DOCTOR-PATIENT RELATIONSHIP has always been one of a very special type. It is a combination of that intimate relationship which exists in marriage, and that of the priest and his parishioner—the most personal relationship known in our world.

In this relationship, the loss of freedom of either individual has a direct effect upon the other individual. It seems to me that the importance of the interdependence of the doctor and patient is not fully appreciated in our civilization.

I am convinced that a government health service restricts four fundamental freedoms to a higher degree than any other insurance systems, whether purely private or based upon legislation. These restrictions are:

1. The freedom of the patient to choose the doctor in whom he has confidence.
2. The freedom of the doctor to refuse further treatment to the patient if the confidence each has in the other—the physiological basis in the healing of illness is destroyed.
3. The freedom of the doctor to practice his profession according to the rules of medical art and science—freedom to select the suitable techniques in diagnosis and therapy, and to reject those that are unnecessary or even detrimental.
4. The freedom of the supervision of the doctor by professionally qualified groups—free from the authoritative influence of laymen.

Finally, I might add another especially important danger in the governmental service. This is the patient's loss in choosing the system of illness protection he desires, and developing his own relationship with it.

* * *

ALL OF THE group of dangers we have mentioned also exist in almost every insurance institution or welfare system. Hence, these dangers are the main issues involved whenever there are disagreements between the medical profession and the social security institutions.

Bearing in mind the difficulties in this topic, the many varieties of insurance and welfare systems, and the types of organizations in government health services, it was obviously impossible for me to deal with this important topic in more detail. I have tried to present some of my personal thoughts and philosophy on this subject, which may have proved that there are many and important dangers in the socio-philosophic or, may I say, socio-romantic ideal and ideas on a governmentally-owned protection for every citizen of a state against the risk of illness.

* * *

IN MY OPINION the most important of these dangers are:

1. The attempt to equalize individuals and standardize various conditions.
2. The possible restriction of freedoms which are the decisive factors in the doctor-patient relationship.
3. The possibility that a necessary development in the field of health policies will be subordinated to the requirements of political economics.

Finally, I am opposed to the state intruding itself into another field of human life as founder, carrier, and administrator—a field which can be covered by other means without the regulation and with more freedom for each individual.

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Bay Publicizes Speakers Bureau

As a public relations measure, the Bay-Arenac-Iosco County Medical Society has established a Medical Speakers Bureau as a service to community organizations and groups.

To announce the formation of the Speakers Bureau, Chairman W. G. Gamble, Jr., M.D., mailed a letter to clubs and organizations in the area, inviting them to make use of the medical society service. The letter followed newspaper publicity.

Doctor Gamble reports that the Bureau succeeded so well during its first year of operation that a second letter of invitation was sent out for 1959-60.

Instead of fighting the U.M.W., Pennsylvania physicians have voted to launch a $150,000-per-year public relations program to convince people of the following: "To the extent to which care has been substandard, we wish to elevate it. To the extent that economic abuses have developed, they should be curbed and prevented. To the extent that patients and third parties have been aggrieved, we wish to provide . . . equity and justice."—*Medical Economics*, November 9, 1959.

"Your Doctor Keeps You Well" is the message carried this month on thousands of linen supply delivery trucks across the country. Each month, the Linen Supply Association of America dedicates its poster project to a different cause or group.

"In modern society, the necessary concentration of production facilities some day will have to be supported by well-informed public opinion.—Raymond Aron, French economist, in early 19th century.

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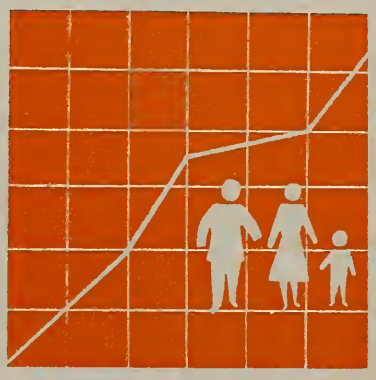
Facts Used by Forand Bill Backers Are Incomplete, Inconclusive



Liquid asset holdings of persons over sixty-five have been ignored by groups supporting legislation which would provide government health care for the aged.

The fact that the over-sixty-five age group holds "relatively substantial" liquid assets makes questionable the need for legislation ". . . designed to compel those under sixty-five to pay . . . medical care costs of those over sixty-five, regardless of financial status."

These are conclusions of a study by the American Medical Association's Department of Economic Research on "Financial Assets of the Aged and Forand-Type Legislation."

* * *

THE STUDY POINTED OUT that the Federal Reserve Board's Survey of Consumer Finances shows that between 1949 and 1958, persons over sixty-five accumulated liquid assets faster than any other age group.

Three out of four persons (74 per cent) in this age group owned liquid assets in some form in 1958, according to the FRB survey. Persons over sixty-five had the highest median value in liquid asset holdings—$800 for all aged persons and $2,450 for the 74 per cent holding liquid assets.

Liquid assets include bank savings and checking accounts, postal savings, savings bonds, and shares in savings and loan associations and credit unions. They do not include stocks, other types of bonds, homes, and other real estate.

The AMA study said that while nearly 75 per cent of the aged had incomes of $3,000 or less in 1957, nearly half the persons in that income bracket had liquid assets of $500 or more in 1958.

In addition, eight of every ten persons over sixty-five with income of $3,000 to $5,000 in 1958 held assets of $500 or more and 57 per cent had liquid holdings valued at $2,000 and above.

* * *

THE STUDY said these figures suggest that the problem of the aged is not one of money income and age, nor a group problem.

"There are indeed chronic problems of aging and the aged, but . . . they are individual problems of individual human beings," the report said.

"To the extent it can be argued that some people cannot afford medical care, the argument calls either for an extension of the deductible provisions in income tax laws or, at most, for some subsidization of the poverty-stricken."

The study said proponents of the Forand bill have often quoted a figure that three-fifths of all people over sixty-five had less than $1,000 in money income in 1956 and 1957.

It said this figure pictures the aged as poverty-stricken, but it pointed out that in 1958, 47 per cent of all people between fourteen and sixty-five had $1,000 or less income. But the median family income was approximately $6,000.

* * *

THE STUDY SAID it should be remembered that the money income figure quoted for the aged by Forand-bill backers refers to individual incomes—not family income.

Department members making the study were Arthur Kemp, Ph.D., director; Leonard W. Martin, Ph.D., assistant director; and Miss Cynthia Harkness, research assistant.

State C of C Organized

The formal organization meeting of the new Michigan State Chamber of Commerce was held in Lansing on December 9. The State Chamber, according to its founders, is conceived as a "workshop" to produce new and better ways of utilizing our state's business and industrial resources. To accomplish this worthy objective, the Chamber will seek to co-ordinate civic, professional, industrial, agricultural and recreational activities, will work for better legislation, and will cooperate with local chambers and associations.

Contends Instruction Needed in Health Insurance Principles

Medical schools and medical societies should undertake regular instruction of doctors and students in the use and principles of health insurance, contends Haddon M. Carryer, M.D., Rochester, Minnesota.

Commenting on the "many problems in common" of the medical profession and the health insurance business, he made the suggestion in his address to the recent insurance forum of the Health Insurance Association of America in New York City.

Pointing to the "current efforts on the part of both the medical and insurance profession to extend the usefulness of health insurance," Doctor Carryer reported on major common problems toward achieving this goal, and declared:

"These problems are magnified because we are constantly beset by outside planners who would discard gradual evolutionary processes and take a far more radical tack into plans not best for the people whether they be patients or policyholders."

Among problems listed by Dr. Carryer were the costs of processing large numbers of claims, the "failure by patients to understand the nature of the insurance and of benefits to which they are entitled," and not fully understood features of some of the newest types of policies.

"Another problem concerns the matter of indoctrination of physicians with respect to insurance matters," he told the audience of insurance executives.

"Instruction should be started in the medical schools with a series of lectures.

"It should extend to the county medical society and state medical society levels so that physicians understand clearly the significance of such terms as insurance, comprehensive insurance, catastrophic insurance, corridors, deductibles and coinsurance.

"When an insurance program, especially one involving comprehensive care, is introduced in the community, a review of the insurance principles involved should be an integral part of that introduction.

"The omission of such an indoctrination only leads to misunderstanding, over-utilization and bad public relations—bad both for the insurance company and for the physician who may not thoroughly understand insurance principles."

"Medical Care" Up in Consumer Index

"Medical Care" consumer price index rose slightly to 152.2 in September, according to the monthly report by the Labor Department. For all goods and services combined, the rise was 0.3 per cent, to an index figure of 125.2 (1947-49=100). In New York City, the "Medical Care" index rose 2.4 per cent, which accounted in large measure for the increase nationally.

Old Age Survivors, Disability Insurance

Latest figures from Social Security Administration show that in August 1959, payments to beneficiaries of old age, survivors, and disability insurance were being made at an annual rate of $9,864 million. August payments approximated $822 million. Checks are being mailed monthly to 13,396,000 persons: Nearly eleven million of them aged sixty-two and over; about two million young survivors and dependents, and some 300,000 in the fifty to sixty-four age group who are receiving disability payments.

"There continue to be great advances in building better relations between the health insurance business and the medical and hospital professions," reports J. Grant Irving, M.D., chairman of the Health Insurance Council's Medical Relations Committee. He made this observation at the winter HIC meeting.

Doctor Irving cited growing contact with the American Medical Association through meeting of insurance company presidents and the officers of the AMA. He noted these meetings have been of great value in providing an exchange of ideas and viewpoints.

Michigan Health Council Promotes Health Careers

The Michigan Health Council presented four regional health conferences during October and November to take information on health careers, the reduction of traffic accidents, and community, school and rural health programs to Michigan residents.

The conferences were held at Northern Michigan College, Marquette, October 29; Western Michigan University, Kalamazoo, November 5; Central Michigan University, Mount Pleasant, November 12, and McGregor Memorial Conference Center, Wayne State University, November 19.

More than 2,000 students from the host colleges and universities and from nearby high schools attended.

A total of 175 persons, representing the various health careers, appeared on the program or distributed literature and other information at desk side conferences and exhibits.

"Accidents, Ltd."—a separate session at each conference—took an interesting approach to reducing accidental injuries and deaths. Specially "incorporated" for the conferences, the corporation was made up of every Michigan citizen. Those taking part as speakers on this program included doctors of medicine, automobile manufacturing safety engineers, the state police, highway engineers, driver training directors, safety commission directors and newspaper and radio station executives. Each told of the assets and liabilities of their highway safety programs.

The Michigan Foundation for Medical and Health Education, Inc., through its president, E. I. Carr, M.D., Lansing, provided a special grant of $1,000 to assist the Michigan Health Council in sponsoring the regional conferences. Luncheons at Marquette, Kalamazoo, and Detroit were sponsored by the Oldsmobile Division of General Motors Corporation, the Upjohn Company, and Parke, Davis and Company, respectively. The Michigan National Bank again made a grant toward printing the preliminary program. Doctor Carl S. Winters, Oak Park, Illinois, was luncheon speaker at Mount Pleasant, and was sponsored by the General Motors Corporation.

Michigan Pathological Society Radioactive Fallout

Man now has enough data to permit him to live safely in the atomic age, but he urgently needs more facts to live also effectively and economically, Shields Warren, M.D., told members of the Michigan Pathological Society December 12, 1959.

Undue risks should not be taken, nor should fear of hypothetical consequences be permitted to retard the atomic age.

Doctor Warren, who presented the fourth annual Carl V. Weller lecture, was the first director of the Division of Biology and Medicine of the U. S. Atomic Energy Commission and has written, extensively on tissue changes induced by radiation. A past president of the American Association of Pathologists and Bacteriologists, the American Society for Experimental Pathology, the American Association for Cancer Research, and the American Board of Pathology,

Doctor Warren is the recipient of the Ward Burdick Award, highest honor paid by the American Society of Clinical Pathologists. He is a professor of pathology at Harvard Medical School.

It should be brought out, Doctor Warren emphasized, that low-level exposure to radiation is not new to man, and that the human race since its origin has probably been exposed to background radiation of about 100 mr per year or more. In relation to radioactive fallout, over which there has been so much discussion, it is well to remember that present levels of radioactivity due to fallout are less than the increased hazard experienced by living in one city rather than another.

One reason that there is so much argument about fallout is that the full effects of radiation, even in large dosage, may be long in becoming apparent. Consequently, some feel that even slight amounts of radiation may have deleterious effects years hence. A vast amount of animal experimentation will be necessary to evaluate clearly such potential effects and it is possible they may never be fully evaluated, he stated, since the effects proposed may be less than those occurring spontaneously in different groups of control populations.

One of the puzzles to the pathologist as well as to other scientists is that the effect on a given organ or tissue is always manyfold greater than would be expected by the actual energy transfer, indicating that ionizing radiation must act on some key component of the cell, probably a nucleic acid complex by which damage can be effectively multiplied.

Interestingly enough, Doctor Warren pointed out, entire organisms are much more susceptible to radiation injury than are their component parts. Thus, irradiation of only those tissues in and about the cervix of the uterus has far less systemic effect than a tenth of that dose delivered to the organism as a whole. Similarly, isolated cells or cells growing in tissue culture can survive doses of radiation that would be lethal to them were they a component part of an organism wholly irradiated. The changes induced by total body radiation are largely determined by the response of the most sensitive tissues such as the hematopoietic system, germinal epithelium, and intestinal mucosa.

Doctor Warren stressed that the pathologist must familiarize himself with the picture of the delayed effects of radiation and learn the diagnostic criteria for radiation-induced change.

The Carl V. Weller lectures were established in 1956 by the Michigan Pathological Society to honor the professor of pathology at the University of Michigan Medical School. Previous Carl V. Weller lecturers were Howard T. Karstner, M.D., John C. Bugher, M.D., and E. T. Bell, M.D.

Dates Set for New Michigan Conference

The First Annual Michigan Conference on Comparative Medicine will be held at Michigan State University March 21 and 22, sponsored by the Michigan Department of Health, the University of Michigan Medical School, the Wayne State University College of Medicine, and the Michigan State University College of Veterinary Medicine.

The conference planners contend that much benefit can be derived from an annual interdisciplinary conference at which information on diseases which man shares with the lower animals could be presented and exchanged. It was decided to undertake a series of such conferences and to choose a different central theme for each.

The program for this first conference will deal with the basic and comparative aspects of cancer

Although sponsored by Michigan institutions, the conference is expected to have nationwide appeal among those physicians, veterinarians, medical technologists, nurses, and other medical scientists who are interested in the cancer problem.

Inquiries about the program should be addressed to Michigan Conference on Comparative Medicine, Kellogg Center for Continuing Education, Michigan State University, East Lansing.

Wayne State University Reunion

The Wayne State University College of Medicine Alumni Clinic Day and Reunion will be held May 4, 1960. That announcement was made by R. L. Mainwaring, M.D., at the recent meeting of the alumni association board of governors. Dr. Mainwaring will be chairman of the committee.

Wayne State University College of Medicine reports an enrollment this year of 371. Graduate student enrollment at Wayne is 5,018, while the total number attending Wayne is 20,510.

Medical Meetings and Clinic Days

1960	*Events*	*Location*
January 30-31	County Secretaries—Public Relations Seminar	Detroit
February 13	Maternal Health Day	Detroit
February 25-27	National Conference on Rural Health	Grand Rapids
March 8-11	Michigan Clinical Institute	Detroit
March 21-22	Michigan Conference on Comparative Medicine	East Lansing
April 7	Ingham County Spring Clinic	Lansing
April 13	Genesee County Cancer Day	Flint
June 17-18	Upper Peninsula Medical Society	Escanaba
July 28-29	Coller-Penberthy Clinic	Traverse City

MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

The Importance of Mass Screening Programs

EDITOR'S NOTE: *Each month, the State Health Commissioner is invited to express his views on health matters and Michigan Department of Health activities.*

Too much disease is discovered too late when too little can be done about it.

Unquestionably, there are not now, and perhaps there never will be enough physicians to provide periodic physical appraisals on a widespread basis. The extension of public mass screening programs is essential if we are to detect more persons who may have disease in early stages and encourage them to go to their physicians for examination and diagnosis.

Such testing programs are aimed at getting the person with possible disease to his doctor for diagnosis when there is the best chance to correct the condition, to postpone disability, or to use rehabilitation measures. These programs also serve as a springboard for meaningful health education.

They are not a substitute for periodic physical appraisals, but a necessary supplement to them. Furthermore, they conserve the physicians' time by bringing to him persons who are more likely to have diseases.

Historically, mass screening programs for the detection of certain diseases in children and young people have been widely accepted. But fundamentally, we, in the Michigan Department of Health, are as concerned about the early detection of cancer in a fifty-year-old or diabetes in a sixty-year-old as we are in the early discovery of vision or hearing defects in youngsters.

We believe there is a great need to use proven early detection weapons on a much larger scale. The early detection of disease through mass screening programs can and does save lives.

TABLE I. CERVICAL CANCER SCREENING PROJECTS

County	Year of Project	Number Women Examined	Positive*	Suspect*	Atypical*	Number Followed	Proven Cases	Rate/ 1,000
St. Joseph	1954	1,018	—	—	130	127	3	2.9
St. Joseph	1955	1,323**	—	—	48	19	2	1.5
Saginaw	1955	1,000	—	—	50	42	2	2.0
Saginaw	1956	300**	—	—	24	23	3	10.0
Copper Country	1957	1,201	14	98	—	68	6	5.0
Copper Country	1958	653**	—	—	15	4	0	0.0
Macomb	1957	759	6	—	41	35	5	6.6
Oakland	1958	1,278	14	19	—	36	8	6.3
Jackson City	1958	1,020	4	8	—	10	4	3.3
		8,552	38	125	308	364	33	3.9

*Represents differing ways of reporting smear results.
**Largely rescreening surveys.

TABLE II. DIABETES SCREENING USING CLINITRON

Location	Date	Number Screened	Number Suspect	New Cases	New Cases Per 1,000	Cases Prev. Known
Dickinson-Iron	June 1957	5,564	55	16	2.9	12
Montmorency	Jan. 1958	1,031	17	6	5.8	7
Hillsdale	Feb. 1958	3,062	46	7	2.3	3
Ingham	Mar. 1958	683	25	0		13
Gladwin-Arenac	May 1958	982	10	4	4.1	1
Chippewa-Luce-Mackinac	June 1958	6,030	87	38	6.3	10
Ionia Fair	Aug. 1958	1,122	16	2	1.8	4
Detroit Fair	Sept. 1958	1,914	29	2	1.0	2
Newberry State Hospital	Mar. 1959	1,593	23	20	12.6	0
Saginaw City	Mar. 1959	5,799	51	22	3.8	8
		27,780	329	117	4.2	60

For example, consider cancer of the cervix. For thirty years we have had the basic knowledge which would enable us to find this type of cancer early when the chance for recovery is very good. We have known about this method involving microscopic examination of cervical cells for thirty years, yet every month about thirty-five Michigan women die of cervical cancer, over 400 every year. Nationally, the figure runs in the thousands. Table I shows our experience in screening women for cervical cancer.

(Turn to Page 64)

HEART BEATS

Nutrition Program

The Nutrition Program of the Michigan Heart Association has emerged from pilot status to that of a full program. Instruction in the practical application of prescribed sodium restriction diets is given to patients and those preparing food for patients. Trial classes have proved satisfactory and the program has received the approval of the Michigan State Medical Society.

Classes will be arranged in Michigan Communities upon request. Information about arrangements may be obtained by writing to the Program Director, Michigan Heart Association, Doctors' Building, 3919 John R, Detroit 1, Michigan.

New Booklet on Home Care

A new pamphlet, "Home Care of the Child with Rheumatic Fever," has been published by the American Heart Association and its affiliates. The 24-page, illustrated booklet offers parents some ideas on how to cope with a sick child. It was prepared for parents of youngsters for whom hospital treatment is either not advised nor available.

Issued as a companion piece to "Have Fun . . . Get Well," the Heart Association publications on recreational activities for the sick-abed, the new booklet contains basic information and hints useful in the care of sick children in general. It offers practical pointers on home nursing techniques and also includes suggestions for dealing with psychological and emotional problems that are likely to arise when a youngster is confined to bed for more than a week or two.

The booklet goes into detail about the role of the mother in caring for the sick child and the importance of following the regimen prescribed by the physician. Instruction is included on bathing the child in bed, giving medicine, taking the pulse and temperature and keeping records for the doctor. Choosing and preparing food for the sick child, planning a daily schedule for mother and child, and the use of home care equipment are also discussed.

Physicians and others may request copies of the pamphlets by writing to the Detroit office.

ECG Test Books

Electrocardiographic Test Book Sets are still available. The set is in two volumes. Volume I contains Part A, Electrocardiograms with Questions; Part B, Questions on Electrocardiographic Interpretation; An Appendix of tables useful in electrocardiographic interpretation, and the Index to both volumes. Volume II is also divided into Parts A and B. Answers to the questions and detailed discussion of the tracings presented in Volume I are on the corresponding pages in Volume II.

In addition to the answers to the questions, supplementary clinical information, x-rays, and serial electrocardiograms are presented. The cost of the complete set is $5.00 postpaid.

Michigan Department of Health

The Importance of Mass Screening Programs

(Continued from Page 63)

We have screened less than 9,000 women in organized programs. The rate of proved cases is about four out of every thousand women examined, potentially one life saved out of every 250 tested. In all of these programs, specimens were taken by private physicians but the cost was reduced for the individual by subsidizing the laboratory work with federal funds. In most cases, an attempt was made to concentrate on women in the age group in which this type of cancer strikes most frequently.

Another example is diabetes. Because of its hereditary nature, diabetes is becoming, and will continue to become, more widespread year after year. Since diabetes is a progressive disease, it is important to find it early when there is a good chance to prevent complications. Again through federal funds, a number of diabetes screening projects have been sponsored by the state and local health departments with the assistance of local physicians. Table II shows our experience in these screening programs using the clinitron. The rate of discovery is more than four previously unknown cases out of every 1,000 persons tested.

These are only two examples of mass screening programs which without question can and do save lives. Mass screening programs represent one of the newer phases of the long-established partnership between private medicine and public health which is founded upon mutual trust and a common interest in the health and welfare of American people.

Surgical Treatment of Ventricular Septal Defects

Conrad R. Lam, M.D.
Detroit, Michigan

IN 1954, Lillehei and his associates[4] at the University of Minnesota by-passed the heart by cross circulation with a human donor and demonstrated that closure of ventricular septal defects under direct vision is feasible. Fortunately, the human donor method for by-passing the heart was soon replaced by a simple and inexpensive mechanical oxygenator of the bubble type.[5] In the meantime, Kirklin and his associates at the Mayo Clinic[2] had used successfully an oxygenator of the Gibbon type for the closure of ventricular septal defects.

Obviously, the feasibility of this type of intracardiac surgical procedure is definitely established. However, there has been ample opportunity for further refinements. First of all, the operative field is far from dry because, with the conventional by-pass, only the vena cavas are occluded; and the heart is allowed to beat, with the result that there is a continuous flow of coronary sinus blood into the right ventricle through the tricuspid valve. Also, there may be a serious back-flow of blood from the aortic valve because of structural or functional insufficiency as a result of distortion. The motion of the beating heart is not conducive to the meticulous kind of suturing which is indicated for the complete and permanent closure of the septal defect which lies in such a critical area in proximity to the conduction bundle and the aortic valve. The answer to all of these problems lies in the principle of induced cardiac arrest.

At the 1955 meeting of the American Association for Thoracic Surgery, some investigations supported by the Michigan Heart Association were reported.[3] The heart was stopped with the injection of potassium chloride into the left ventricle. With the brain protected by hypothermia, complicated operations were carried out in the auricles and ventricles. Since no pump-oxygenator was available at that time, we had to depend on manual systole to expell the potassium salt from the coronary arteries and ventricular fibrillation was a common complication. However, in a series of twenty animals, only one had refractory fibrillation. In November 1955, we began some tests with acetylcholine as the cardioplegic drug and found that it was excellent for the purpose. In the meantime, Melrose[6] of London demonstrated that potassium citrate is useful for inducing cardiac arrest and this method has been applied clinically by Effler and his associates.[1]

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From the Division of Thoracic Surgery of the Henry Ford Hospital, Detroit, Michigan.

Presented in the Panel on Cardiac Surgery, Michigan Clinical Institute, Detroit, March 12, 1959.

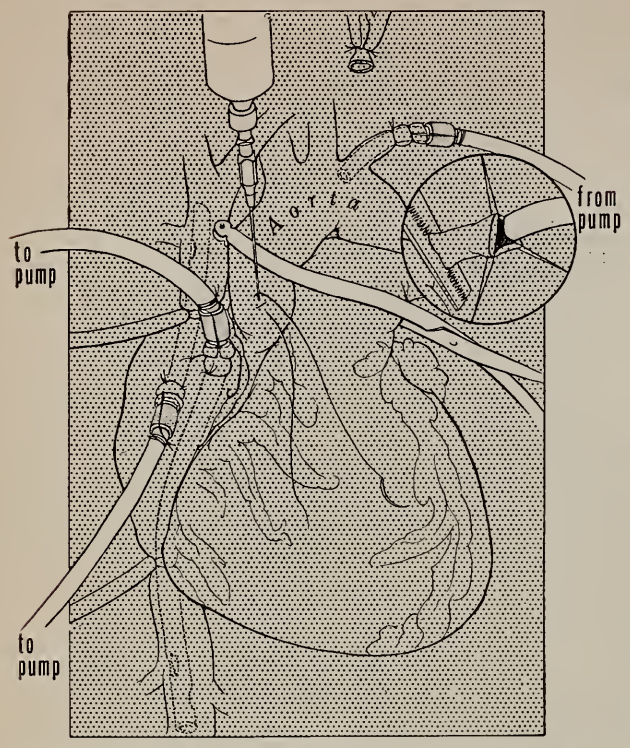

Fig. 1. Diagram of cannulations for by-passing the heart with the pump-oxygenator, and method of inducing cardiac arrest by the injection of acetylcholine. The femoral artery is now used almost exclusively for the return of oxygenated blood rather than the left subclavian.

Method

The chest is opened through a transverse incision through the third interspace and the sternum. After heparinization of the patient, a systemic artery (usually a femoral) and the vena cavas are cannulated (Fig. 1) and attached to the appropriate outflow and inflow tubes of the pump-oxygenator system (Fig. 2). When a test—with the pump running—shows that the inflow and outflow are balanced, a non-crushing clamp is placed across the aorta (and also the pulmonary artery for reasons of convenience) and acetylcholine in the amount of 10 mg./kilo. of body weight is injected into the aorta proximal to the clamp. The drug enters the coronary arteries and promptly stops the heart. An incision is then made in the outflow tract of the right ventricle and the defect is exposed.

THE AUTHOR

Conrad R. Lam, M.D.

In a fair number of cases, it will be necessary to divide one or more papillary muscles so that the septal tricuspid leaflet may be retracted better. The common type of high defect is shown in Figure 3. Closure is effected by placing interrupted sutures which are tied over a pledget of Ivalon sponge. No recurrence of the defect has been noted following this type of closure.

As soon as the intracardiac part of the operation has been completed, the heart is started by removing the aortic clamp. This permits the perfusion of oxygenated blood through the coronary arteries and

Fig. 2. Pump-Oxygenator of the bubble type (Lillehei-DeWall) which has been used to permit the open heart operations in this series.

the acetylcholine is washed out. The blood which is rich in the cardioplegic drug passes out of the coronary sinus, through the tricuspid valve and into the open right ventricle, where it escapes during the closure of the incision into the right ventricle. As a rule, an excellent heart beat is present by the time the ventricular suture line is finished. The cannulas are then removed from the vena cavas and subclavian artery, and protamine sulfate solution is injected to neutralize the heparin. A few sutures are placed in the pericardium and the chest is closed with drainage tubes in both thoracic cavities.

The postoperative care of patients who have had repair of interventricular septal defects is exceedingly important. Postoperative hemorrhage must be watched for diligently and treated appropriately by blood replacement, additional protamine and, if necessary, exploration of the chest and pericardium. The main-

tenance of a clear airway may be difficult and the use of prophylactic tracheotomy in infants under the age of one year has much to commend it.

Results

At the time of the preparation of this report (November 1, 1959) 158 operations for the cure of ventricular septal defect have been carried out on 156 patients (two patients were operated on a second time because of early recurrence of the defect). There were forty-one deaths in the entire series, giving a mortality rate of 26 per cent. Less than half of the infants under the age of one year survived. In patients over the age of three years, the mortality rate was 13 per cent.

We have accepted many cases with marked pulmonary hypertension for operation. The important thing is whether the pulmonary hypertension is due primarily to flow or resistance of the vascular bed of the lung. Increased pulmonary flow is revealed by elevation of the pulmonary capillary wedge pressure or the pulmonary vein pressure, x-ray evidence of increased pulmonary vascularity and electrocardiographic evidence of left atrial and ventricular enlargement. Resistance as the predominant factor is evidenced by pulmonary artery hypertension in the absence of parallel elevation of wedge pressure or pulmonary vein pressure, decreased pulmonary vascularity and electrocardiographic indication of predominantly right heart enlargement. The fact that there were five survivals in the ten cases in which the pulmonary artery pressure was equal to that of the aorta was probably because no cases of balanced shunt with marked pulmonary resistance and little or no flow were accepted for the operation.

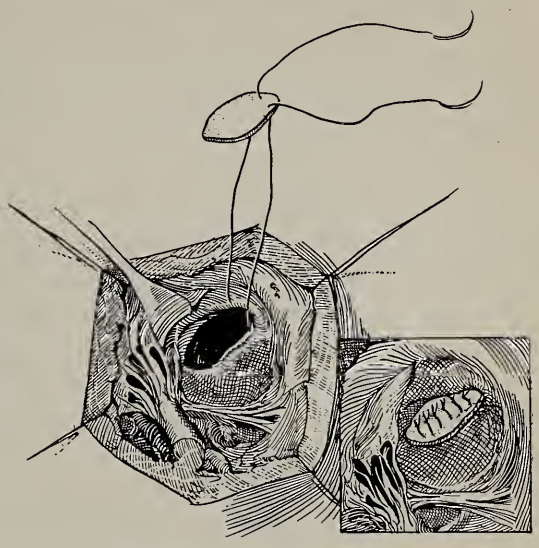

Fig. 3. Exposure of the ventricular septal defect and method of closure with sutures tied over a patch of Ivalon sponge. Note that the sutures are passed through the fibrous tissue of the left ventricular side of the septum rather than the muscular tissue on the right side, to avoid conduction bundle injury.

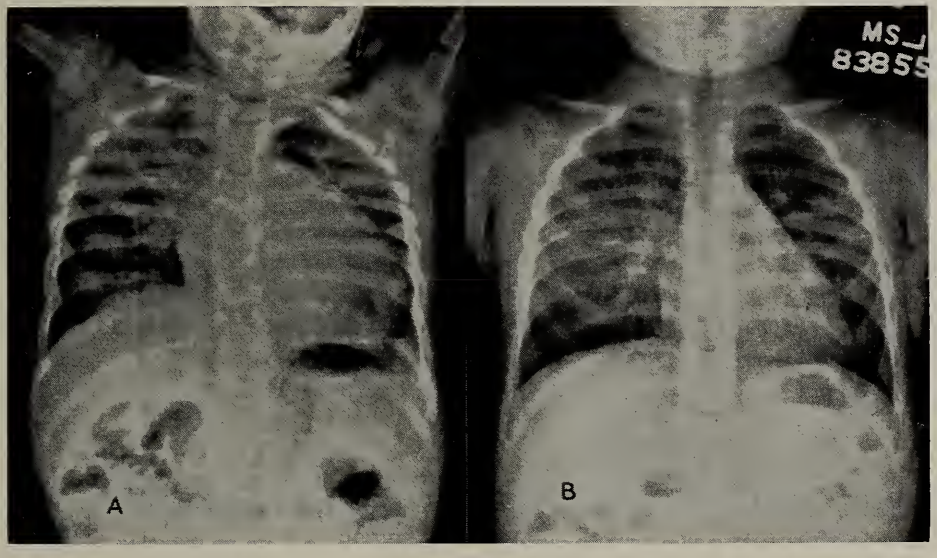

Fig. 4. (a) Roentgenogram of the chest of infant one year of age with evidence of ventricular septal defect. Note the globular heart and the increased vascularity of the lungs. (b) Roentgenogram of chest five months following closure of the septal defect. The change in the shape of the heart, and the decreased vascularity of the lungs are striking.

There have been no late deaths or serious complications in the patients who have lived more than two days after the operation, with the exception of two instances of early recurrence. The clinical improve-

ment following the closure of the shunts has been remarkable. Weight gain in the undernourished children has been rapid. The cardiac status has promptly changed into a normal one. Normal activity has been tolerated within the first few weeks. A surprising dividend has been the rapid change of the radiologic picture of the heart toward one that is essentially normal (Figs. 4a and b).

Summary

The repair of ventricular septal defects is a relatively safe surgical procedure, provided reasonable candidates for the operation are selected and the technical details of the operation are carefully managed. The poorest results will be obtained in very young infants (under the age of one year) and in patients with high pulmonary arteriolar resistance. The best results will be obtained in children above the age of three years and in those patients with high pulmonary artery flows.

Induced cardiac arrest with acetylcholine as the cardioplegic agent is a valuable adjunct during the cardiac by-pass with the pump oxygenator.

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Continuing Dangers of Tuberculosis

"The public has become over-optimistic. Many people are not even vaguely aware of the continuing dangers of tuberculosis in their communities," says the 1959 Annual Report of the National Tuberculosis Association.

The report also states:

"With every fourth person carrying tuberculosis germs, one never knows when or where the hidden enemy will strike.

"The total number of cases is not declining rapidly.

"One fourth of the known active cases at home have no medical supervision."

The NTA urges a three-point attack against the disease—detection, treatment, and research. National statistics place tuberculosis as the most serious infectious disease problem in the country. The NTA report cites 83,000 new cases and 12,000 deaths reported in a year; 150,000 patients known to have active tuberculosis; 100,000 or more persons with unknown active tuberculosis; and 1,750,000 former patients who should be kept under medical and public health supervision.

Clinical Hyperthyroidism and Coarctation of the Aorta

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Peter E. Tuynman, M.D.
Dewey Dodrill, M.D.
Detroit, Michigan

SINCE the original article by Paris[10] appeared in 1791, the interest of physicians regarding coarctation of the aorta has been maintained to the present day. Through the nineteenth century and the early part of the twentieth, such names as Cooper, Meckel, Laennec, Minkowski, Rokitansky, Monckeberg, Abbott, and Lewis have appeared in the literature in connection with original thought and study on the subject. Work by various men during the past decade has, naturally enough, stressed the techniques of diagnosis and surgical correction of the lesion—previously often overlooked, and not amenable to repair when discovered.

Prior to the advent of effective surgical treatment and antibiotics, early writers confined their interest to the morbid anatomy of the condition. The history and pathogenesis of the lesion have been admirably covered in the classic works of Abbott[1] and Blackford[3]; little can be added to their work, done some thirty years ago. Maire's observations present several theories regarding etiology. He concluded that arteriosus stenosis with incorporation of the contiguous portion of the aorta and/or embryonic maldevelopment of the descending limbs of the primitive left aorta were logical choices.

The physiologic results of this maldevelopment have been extensively studied in recent years—newer techniques of experimentation are providing valuable information regarding hemodynamics of the various organs, and advances in radiography are providing a more precise diagnosis of the lesion in any individual case.

Prognosis has advanced along with diagnosis and treatment in cases amenable to surgery; the majority of Abbott's cases died before their fortieth year, usually suddenly because of ventricular rupture or infarction, or, in a matter of days, because of bacterial endocarditis and heart failure. Recently, antibiotics and control of hypertension have further added to the effectiveness of surgical treatment.

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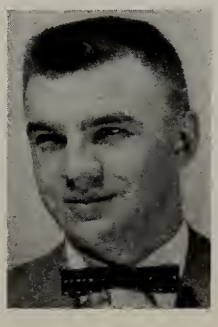
The literature over the years abounds with reports of coarctation in conjunction with other congenital anomalies, usually of the cardiovascular system. One may logically presume that physiologic alterations, as well as anatomic changes, are to be expected in patients who harbor the coarctation. Among these changes, hyperthyroidism has been previously mentioned by a number of workers from time to time. Loriga[8] first mentioned hyperthyroidism, or Flajani's disease, with aortic coarctation. Amberg[6] cited a case of exophthalmic goiter in a thirteen-year-old girl; the aortic lesion was discovered three years after antithyroid treatment was begun. Ulrich[11] reported two cases first presented as hyperthyroidism: surgical removal of the gland was accomplished without results, and treatment with Lugol's solution was likewise futile. Eppinger and Midelfart[7] described two further cases. Brown[5] reported a patient with symmetrical enlargement of the thyroid gland who subsequently died of endocarditis. Cookson[6] mentioned a case wherein Lugol's solution was given without benefit; but total thyroidectomy was performed with relief of symptoms. A histologic study of this thyroid suggested hyperactivity of the glandular tissue, with low cuboidal epithelium and vacuolated colloid. Vascularity was markedly increased, and this feature of hypervascularity was postulated by Ulrich and later by Bramwell[4] as being the factor responsible for thyroid hyperactivity. Ulrich suggested ligation of the inferior thyroid artery for this reason. Bramwell, reporting on his twenty-six collected cases of aortic coarctation, noted "undue breathlessness, palpation, and fatigue in the majority of cases."



THE AUTHORS

John E. Finger M.D. *(left)*

Peter E. Tuynman, M.D. *(right)*

This paper will report the cases of aortic coarctation diagnosed at Mount Carmel Mercy Hospital from 1950-1956 (seven cases) and will comment upon the finding of clinical hyperthyroidism in three of these cases. This adjective must be used because radioactive iodine studies and serum protein-bound iodine values were not performed on these patients. In two of the three cases of this group, the hyperthyroidism persisted following resection of the coarctation until antithyroid drugs were used.

Two of these cases were seen by one of the authors (P.E.T.) and the other was diagnosed as hyperthyroidism clinically during the first examination at the hospital. Another case was one of Turner's syndrome, but clinical hyperthyroidism was absent and no studies were carried out. Within the past year, a student nurse with coarctation (seen by J.E.F.) was found to have an elevated basal metabolic rate of +19 and lowered serum cholesterol, but was suffering from endocarditis when these studies were done. (Follow-up studies after antibiotic therapy were normal.) A sixth case was a neonatal death, and a seventh was that of a fifteen-year-old girl who died of a subarachnoid hemorrhage, secondary to aneurysmal rupture. The diagnosis of aortic coarctation had been made by exploratory thoracotomy at age four. No mention of her thyroid status was available.

Although this series is small (only one case was noted when the more precise aids to the study of the thyroid gland were available), the fact that clinical hyperthyroidism was present in three out of six adult patients seems more than fortuitous, and bears out some of the previous observations on this subject.

Case Summaries

Case 1.—D. W., white man, aged forty-one, was first examined on February 1, 1951, with complaints of recurring headaches and increasing fullness of the supraclavicular spaces and lower neck, and nocturia. Ten years previously, he had been diagnosed as possessing coarctation of the aorta but was deemed a poor surgical risk because of his age and the surgical techniques employed at that time.

Physical examination revealed the blood pressure in both arms to be 210 systolic, 110 diastolic. No blood pressure could be obtained in either leg. The temporal and cervical arteries were prominent and visibly pulsating. A notable precordial heave was present, as well as a grade II apical systolic murmur. The lower legs and feet were pale, cool and without palpable pulsation. The patient's weight at this time was 158 pounds.

The patient was admitted to Mount Carmel Mercy Hospital for further studies which confirmed the diagnosis of coarctation of the aorta. However, no thyroid function studies were performed at this time. Renal function tests proved normal, although incipient renal failure had been suspected.

The patient was operated upon on April 3, 1951. Resection was performed of a nearly complete coarctation situated 1.5 cm. distal to the left subclavian artery. Immediately following surgery, moderate pulmonary edema occurred, but responded to therapy.

As early as the fifth postoperative day, a wide pulse pressure was noted, the blood pressure being 170 systolic, 90 diastolic.

The increased pulse pressure and pulse rate of 90 to 110, persisted for some months after discharge from the hospital.

It was noted that persistent prominence of the lower anterior cervical area was caused by uniform enlargement of the thyroid gland. The patient complained of nervousness.

Basal metabolic rate on repeated determinations disclosed maximum figures of +25 per cent and +27 per cent. Antithyroid drug therapy utilizing propylthiourocil was instituted on November 3, 1951. This drug was continued in doses of 150 to 300 mg. daily for a period of fourteen months before complete subsidence of all signs and symptoms and lowering of the basal metabolic rate to normal limits was accomplished. At this time the patient's weight, which was 140 pounds upon discharge from the hospital, had reached 170 pounds.

Case 2.—W. B., aged thirty, was examined on January 3, 1952. His complaints were severe pounding headaches, soreness about the neck and upper chest, paresthesias of the legs and recent loss of equilibrium and ataxia.

Examination revealed blood pressure in both arms to be 220 systolic, 100 to 120 diastolic. Blood pressure in both legs was 90 systolic, 60 diastolic.

This man was admitted to Mount Carmel Mercy Hospital on January 11, 1952, for further studies and evaluation for resection of the coarctation. Cardiovascular and roentgenologic procedures confirmed the diagnosis of coarctation of the aorta.

Basal metabolic rate prior to surgery was +20 per cent. Serum cholesterol level was 115 mg. per cent. It was speculated at this time that the increased metabolic rate and the lowered serum cholesterol might be due to increased vascular pressure and flow in the pituitary or thyroid gland, or both, secondary to the aortic coarctation.

Resection of the coarctation was performed on January 22, 1952, and the patient made an uneventful recovery. The patient was discharged from the hospital on February 2, 1952, at which time his weight was 130 pounds.

The patient next appeared for examination on September 13, 1952, complaining of nervousness. At this time, the thyroid gland was palpable. The blood pressure was 160 systolic, 100 diastolic. Basal metabolic rate was +21 per cent. Antithyroid therapy employing Tapazole,* 25 mg. daily, was begun. On October 30, 1952, the patient still complained of nervousness and the blood pressure was found to fluctuate from 160 systolic, 90 diastolic, to 200 systolic, 120 diastolic.

Thereafter, the patient was not seen for twenty-six months, by which time he exhibited no evidence of hyperthyroidism and had gained seven pounds in weight, although he had long since discontinued the antithyroid drug.

*Tapazole, (Methimazole); Eli Lilly & Company (1-Methyl-2-Mercaptoimidazole)

Case 3.—B. F., a twenty-two-year-old white woman, entered the hospital on January 12, 1954, complaining of high blood pressure, diplopia, and mild exophthalmos for two to three years. Within the previous year she had noted heat intolerance, nervousness, and a 44-pound weight loss despite increased appetite. During the six months prior to admission she also became aware of shortness of breath on exertion, chest pain with exertion, and frontal headaches. Past history and systemic review were negative. Physical examination revealed facial flushing, mild exophthalmos, a prominent systolic thrill over both carotid arteries, and a prominence of the thyroid isthmus. In addition, the heart was enlarged to the left anterior axillary line. Blood pressure was 175 systolic, 95 diastolic and there was a harsh systolic murmur during the entire period of systole which was heard over the precordium and neck. Pulsation and blood pressure were absent in the legs.

The chest film showed rib notching and cardiomegaly. Urinalysis showed 2-plus albuminuria. Serum cholesterol was 253 mg. per cent and the basal metabolic rate was +14 per cent. Blood chemistry and electrocardiogram were within normal limits.

On January 22, 1954, the coarctation was resected. A 2 cm. segment of coarctated area distal to the left subclavian was removed.

The patient did well postoperatively, except for minor pleuritis and effusion in the left base. She was discharged on February 10, 1954, and has remained well to date, with blood pressure within normal limits. She was seen as an obstetrical patient about a year after surgery, and required no antithyroid treatment prior to surgery, or after it. In this case, the clinical criteria of hyperthyroidism were so well filled that the impression of the original examiner did not include aortic coarctation until the day after admission, when femoral pulses were noted to be absent.

Comments

Although the tests employed did not include those developed more recently for thyroid evaluation, the authors feel that the signs of clinical hyperthyroidism present in three of the six adults were enough to confirm reports already cited in the literature of this condition as related to aortic coarctation. Cookson, Ulrich, and Bramwell postulated increased vascularity of the gland *per se* as the etiology for its hyperactivity. This would seem to be confirmed by the histologic examination of the tissue removed from Cookson's patient.

We would like to add another thought—that excess thyrotropic hormone, possibly due to increased pituitary vascularity, may be a factor to consider. Thyrotropic hormone usually provokes hypertrophy and hyperplasia of the thyroid epithelium, and the weight of the gland increases despite loss of colloid. Associated with the histologic change is an increased ability of the gland to take up iodine and synthesize thyroxin. However, the hormone is not stored but is immediately released to the circulation. It is suggested that in the investigation of persons harboring aortic coarctation, blood assays for thyroid-stimulating hormone, radioactive iodine uptake studies and protein-bound iodine determinations be performed. These procedures will denote the status of the thyroid gland and indicate whether it has been affected by the altered hemodynamics associated with coarctation of the aorta.

The authors feel that this association may occur more frequently than has been suspected and that it explains some instances in which elevated systolic pressure persisted following resection.

Summary

The relationship of hyperactivity of the thyroid gland seen in some cases of aortic coarctation is presented. Literature is reviewed on this subject. The possible etiology of altered hemodynamics including increased vascularity of the gland as the etiology is considered, as well as the possibility of excessive production of thyrotropic hormone by the pituitary. Of six adult cases of aortic coarctation at Mount Carmel Mercy Hospital from 1950-1956, three had signs of clinical hyperthyroidism.

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Congenital Arteriovenous Communication as a Posterior Mediastinal Tumor

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MANY cases of congenital arteriovenous communication have been reported in the medical literature.[1,3,5] The recent article by Fisher and Johnson of Denver, Colorado[4] seems to be the most comprehensive coverage of the subject for it discusses nine cases of congenital A-V communication of various locations. Fisher and Johnson emphasize the difficulty of correct histopathologic diagnosis of A-V communications because of their strong resemblance to hemangiomas and, therefore, being mistakenly diagnosed as such. Although A-V communications may be located anywhere on the body, reports of cases of the skin and extremities are more frequent than those of the inner organs. The explanation for this disproportionate recording may be advanced as resulting from the lack of clinical symptoms in all cases of A-V communication. The external cases are noted more easily than the internal ones, and one has reason to suspect that many of the internal A-V communications go unnoticed unless discovered by some chance such as the case to be reported.

The following aspects of our case make it different from the Beno and Das[2] report and interesting to discuss on its merits: (a) the patient had no clinical symptoms; (b) the diagnosis had to depend heavily on the x-ray findings thus arousing the question of its being a tumor of neurogenic origin; (c) the case may be the first A-V communication of this location to be reported.

Report of Case

B. F. No. (A-30672), a white man, aged forty-seven, was admitted to Highland Park Hospital as a result of a routine chest x-ray which revealed a mediastinal tumor. The patient did not have any physical symptoms except for the history of a little weight loss which occurred after he had been notified of the findings of his chest x-ray. This may be attributed to the anxiety caused in the patient by the report. He gave no family history of cancer, diabetes or tuberculosis. He stated that he had been turned down by the army in 1942 for symptoms of tuberculosis but that his family doctor was unable to confirm these findings at the time.

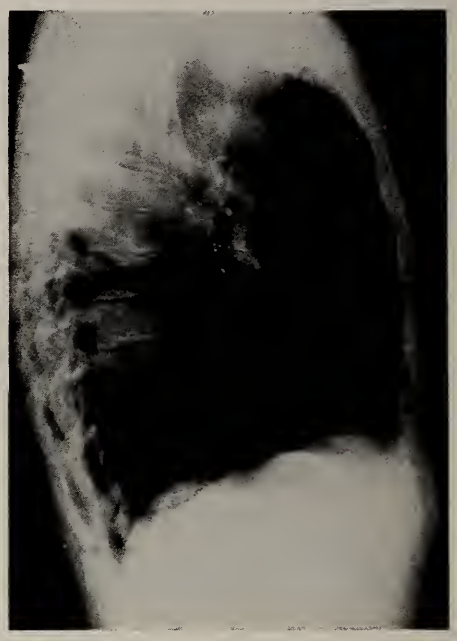

Fig. 1. Chest radiograph, left oblique view, of Patient B. F. (A-30672).

The physical examination revealed a well-developed, well-nourished white man weighing 65 kg. (145 lb.) who was in no acute distress. The skin of his face was rather red in color but without cyanosis. The oral and buccal mucosa were normal in appearance. His temperature was normal, blood pressure 150/80, heart rate 90 per minute. He did not have any clubbing of the fingers nor any cyanosis of the nail beds. The rest of the physical examination was essentially negative. The urinalysis and serology were negative. Hemoglobin level was reported to be 17.0 gm. and the erythrocyte count was 7.5 million. The leukocyte count was 6,600 with a normal differential count. This high level of hemoglobin and erythrocytes led to a recount on the next day. The result was: hemoglobin 18.0 gm., erythrocytes 8.5 million. The hematocrit was 61 per cent and the sedimentation rate was 1 mm. in the first hour. The x-ray of the chest, especially the left oblique view (Fig. 1), revealed a large tumor mass located posteriorly in the region of the ninth and tenth dorsal vertebrae. The radiologist suggested that the possibility of a neuroganglioma must be seriously consideration. Aside from the evidence of calcification at the apex of the right lung the chest x-ray showed no other

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abnormalities. The old-tuberculin test was three-plus positive and the sputum studies for tubercule bacillus were negative.

Operation.—The operation was performed on the third hospital day under semiclosed endotracheal general anesthesia. The left thoracic space was entered through the bed of the partially resected seventh rib. A tumor mass, measuring about 5 cm. in diameter and located posteriorly in the chest and covered completely by parietal pleura, was revealed (Fig. 2). The lung was not involved with this mass. The mass felt somewhat spongy to palpation. There was a rather broad extension from this mass in a lateral and inferior direction to the region of the base of the ninth rib. This direction of the pedicle aroused the suspicion of the mass being a cyst of spinal canal origin. A needle was inserted into the mass and bright blood was aspirated. Palpation of the pedicle revealed a large varicosity. A segment of the ninth rib was carefully resected exposing a dilated vein. This vein measured approximately 5 to 7 mm. in diameter. Upon dissection, the artery which was also markedly dilated, was found to be immediately below this vein. By progressing posteriorly to the angle of the rib, the artery and vein were both dissected and ligated. The pleura was then incised and the vein and artery were pulled inside the chest. The pleura over the mass was also incised and the mass was removed after being carefully dissected from the surrounding tissue. The chest wound was closed after leaving one catheter tube drain. During the surgery, the patient received 2 pints of blood.

Fig. 2. *(above)* Fistulous mass *in situ* at operating table.
Fig. 3. *(below)* Gross specimen after removal.

The patient's postoperative course was uneventful. The checkup x-ray reported the disappearance of the tumor mass and a postoperative chest without complications. The blood count on the first postoperative day recorded: hemoglobin 14.9 gm.; erythrocytes, 4.9 million; icteric index, 7.0 units; serum bilirubin, 0.7 mg. The second blood count was taken on the fifth postoperative day and showed: hemoglobin 13.6 gm.; erythrocytes 4.6 million; leukocytes 6,200 with a normal differential count.

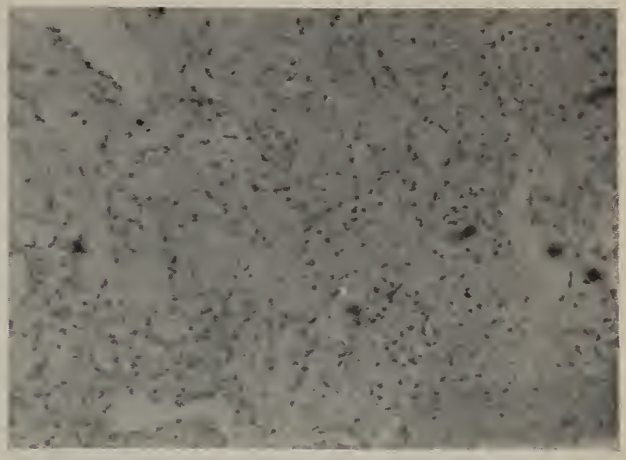

Fig. 4. Microscopic section of mass.

Pathology.—The specimen measured 6 x 5 x 5 cm. and was partially encapsulated by membranous tissue. A slender strip of tissue was attached to this mass measuring 5 x 1 x 0.5 cm. and containing a large vein and a narrow artery. Grossly, the vein extended into the mass. The cut sections of the mass were of a fleshy, pale-brown appearance, and the cystic spaces were filled with serosanguinous fluid. The specimen was kept in saline before being photographed (Fig. 3).

Microscopic sections of the mass revealed it to be composed of dilated sinuses which were lined by a single layer of endothelium and many dilated capillaries. The vascular spaces were, in general, surrounded by loose fibro-elastic connective tissue. Some veins showed partial hyalinization of their wall (Fig. 4).

Discussion

The salient points of this case present a number of interesting features. Though a detailed report on the clinical manifestations, pathogenesis, et cetera, is beyond the scope of this presentation, some conclusions reached through this experience are worth enumerating.

The extreme rarity of such localization of an A-V communication is vouched for by the fact that no other report dealing with another such case could be discovered in the various medical journals. A second point worthy of mention is the comparative difficulty of diagnosis of such cases through the usual clinical methods. The high hemoglobin and erythrocyte counts were the only preoperative findings suggesting the possibility of a congenital A-V communication. As has been suggested above, this lack of clinical symptoms in the patient may be the

(Continued on Page 101)

Hypertension in Infancy and Childhood

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ALTHOUGH significant hypertension is infrequently encountered in infants and children, its presence constitutes an extremely important finding since many forms occurring in the pediatric age-group can be treated successfully. It is the plan of this paper to discuss the measurement of blood pressure in children and to present a systematic approach to the investigation of hypertension with special emphasis on the more frequently encountered conditions. Present-day concepts of therapy will be outlined for each diagnostic possibility.

Blood Pressure Determination

In determining blood pressure in children, careful attention must be paid to the conditions of the examination, the technique of obtaining the blood pressure, and the interpretation of the results in respect to the normal values for a particular age group. Studies by Clayton and Hughes[4] on hospitalized children revealed that systolic pressure differences of as much as 30 mm. Hg. could occur because of apprehension. No doubt the same could be said for the office situation as well. Such devices as showing the child the equipment, demonstrating the inflation of the cuff, and directing attention to the dial or mercury column may serve to allay apprehension, and allow a rapid accurate determination under more favorable conditions. In small infants, having the mother hold the baby on her lap, or feeding the infant may prove helpful. An isolated finding of hypertension during the physical examination should always be confirmed by repeated determinations. A blood pressure determination should be performed by the second year of life and repeated at the pre-school examination, but earlier determinations should be performed particularly where cardiovascular or renal disease is suspected.

Technique.—The auscultatory method using either a mercury or spring sphygomomanometer can be utilized in most examinations. The selection of a proper cuff size is extremely important, as too wide a cuff gives low values, while a narrow cuff falsely elevates the pressure.[26] A properly fitted cuff should cover roughly two-thirds of the upper arm. If various sized cuffs are not available, folding the cuff to adapt it to the smaller extremity is permissible. Again the folded cuff should cover approximately two-thirds of the upper arm. To allow for easier ascultation of the brachial pulse, its position should be located by palpation and the stethoscope bell placed lightly but snugly over this area. The systolic pressure is recorded at the point of appearance of the pulse sounds, and the diastolic pressure recorded at the point of disappearance of the sounds.[1] In determining the leg blood pressure, the same sized cuff as was placed on the arm is used on the thigh, and the stethoscope bell is placed in the popliteal fossa. Normally the systolic pressure in the legs is 10 to 40 mm. Hg. higher than in the arms, while the diastolic pressures are usually equal.

In small infants when blood pressure cannot be determined by the auscultatory method, an approximation of the systolic pressure can usually be made by palpation of the radial pulse as the cuff is deflated or by noting the pressure at which the onset of oscillations occur on the anaeroid dial.

More recently the "Flush" technique has been described[16,24] for use in determining the systolic blood pressure in small infants.

Determination of Blood Pressure by the "Flush" Technique

A 5 cm. cuff is placed around the ankle or wrist after which an elastic bandage is wrapped snugly around the part, starting distally to express blood from the extremity. The cuff is then inflated to a point higher than the suspected systolic pressure. The elastic bandage is then removed exposing the blanched extremity. Pressure is gradually reduced (6 to 7 mm./second) and the pressure recorded at the point where there is visible flushing of the extremity. Pres-

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sures obtained by this means are lower than those obtained by the auscultatory method and correspond more closely to the mean arterial blood pressure. It should be emphasized that leg blood pressure obtained using the flush technique may be lower than the arm pressure under six months of age. When coarctation of the aorta exists, the differences are striking.

TABLE I. NORMAL BLOOD PRESSURE VALUES FOR INFANTS AND CHILDREN*

	Systolic	Diastolic
Newborn	80	45
½ to 5 years	90±25	55±15
6 to 10 years	100-110±15	60±10
11 to 15 years	110-125±15	60±10

*Adapted from Smith, C.A.[27], Haggerty, R. J., et al[19], and Graham, A. W., et al[17].

Normal Blood Pressure Values in Infants and Children

In the newborn infant, the upper limit of normal blood pressure is in the range of 80 mm. Hg. systolic pressure, with a diastolic pressure of 45 mm. Hg.[27] Blood pressure values for infancy and childhood are presented in Table I. In general, a blood pressure recorded under basal conditions at 15 to 20 mm. Hg. over the accepted norm is significant. It is well to repeat the determination on subsequent visits should this be an isolated finding. If significant elevation persists, then one should proceed with the various diagnostic possibilities. In hospitalized children, the cuff may be left on and blood pressure determinations obtained during sleep.

Etiology of Hypertension

The more common causes of hypertension in infancy and childhood will be discussed as individual entities. Table II lists the important diagnostic[12] studies utilized in the evaluation of hypertension. Table III summarizes the commonly encountered conditions, their diagnostic features, and suggested therapy. Of the entities to be discussed, renal disease is by far the most common cause of hypertension occurring in childhood.

I. *Renal*

(A) *Acute Hemorrhagic Nephritis.*—Acute hemorrhagic nephritis has a high incidence (50 to 60 per cent) of associated hypertension.[22] Although the hypertension is of short duration (average eight days), the concurrent complications, hypertensive encephalopathy and cardiac failure, account for the majority of deaths observed during the acute phase. Since both of these complications are preceded by a rising blood pressure, the physician can anticipate and avoid their occurrence in the majority of subjects by serial measurements of the child's blood pressure during the first week or two of the disease and observing for signs and symptoms of encephalopathy (irritability, headache, progressing to coma and convulsions) or of cardiac failure (restlessness, increasing heart size, rising pulse rate, and basilar rales).

TABLE II. EXAMINATIONS USED IN EVALUATION OF HYPERTENSIVE DISEASE IN CHILDHOOD**

* 1. Palpation of femoral pulses and measurement of blood pressure in all four extremities.
* 2. Examination of ocular fundi.
* 3. Urinalysis.
* 4. X-ray examination of the thorax.
* 5. Determination of blood urea nitrogen.
6. Electrocardiographic examination.
7. Determination of serum potassium, sodium, calcium, bicarbonate and chloride.
8. Excretory urography.
9. Retrograde pyelography with "split" function tests.
10. Radioactive diodrast clearance test.
11. Regitine test.
Determination of urinary catecholamines.
12. Renal arteriography.
13. Determination of urinary excretion of lead and mercury.
14. Determination of urinary pattern of steroid excretion.

* Routine
** Modified after Fairbairn, J. F., II.[12]

On occasion, the physician may be consulted regarding a child with manifest encephalopathy or cardiac failure while the antecedent signs and symptoms of nephritis may have been overlooked or obscured by the severity of the complicating encephalopathy or heart failure. Inclusion of acute nephritis in the differential diagnosis of hypertension in children in whom a rapid development of a comatous state or heart failure has occurred, will avoid needless delay in proper diagnosis and therapy.

Management.—In the majority of children, complications associated with the hypertension of acute nephritis do not occur until the blood pressure rises over 140/90. Hypertension beneath these levels unless accompanied by symptoms usually requires no therapy. However, sudden crises in which the blood pressure rapidly rises may occur. Thus, repeated observation of the blood pressure should be made within the first week or ten days of the disease.

In recent years, newer hypotensive agents have become available which induce a rapid and effective drop in the hypertension of acute nephritis and which, in the recommended dosage, cause neither significant impairment in renal function nor drop of blood pressure to hypotensive levels. For the past two years, we have used the following program (essentially in

the manner recommended by Etteldorf[11] and Daeschner[7]) and have obtained gratifying results (Table IV).

For hypertension (140/90 or higher) reserpine (purified alkaloid of Rauwolfa serpentina) 0.10 mg./kg. of weight intramuscularly is given as a single dose. The onset of response occurs between one-half and two hours after administration and continues for eleven to eighteen hours. In many subjects hypertension does not recur. For those patients in whom hypertension returns, the above dosage is repeated as need arises, until hypertension ceases. It should be noted that oral reserpine may not be effective until seven to fourteen days after onset of therapy, thus is of no value in the treatment of acute hypertension, regardless of cause.

In a small percentage of children, a significant response does not occur on the above program. If after three to six hours of serial blood pressure observa-

TABLE III. HYPERTENSION IN CHILDHOOD
Diagnostic Aids Useful in Determining the Etiology and Specific Therapy Indicated

Disease	Diagnostic Points	Therapy
1. Acute hemorrhagic nephritis	Clinical picture— Urinalyses Blood urea nitrogen Urea clearances ASO titer	Parenteral reserpine and Apresoline®, or magnesium sulfate
2. Chronic nephritis	Growth failure Refractory anemia Urinalyses Concentration tests Urea clearances Renal biopsy	Oral reserpine and chlorothiazide; other anti-hypertensive agents
3. Obstructive lesions of the renal arteries	Radioactive diodrast clearance Aortogram Intravenous pyelograms	Resection of stenotic artery
4. Renal vascular insufficiency associated with renal hypoplasia or chronic pyelonephritis	Recurrent pyelonephritis Urinalyses with cultures Intravenous pyelograms Retrograde pyelograms "Split" renal functions Radioactive diodrast clearance Aortogram	Surgical correction of obstructive lesions; nephrectomy if disease completely confined to one kidney
5. Renal neoplasms	Mass in flank Intravenous pyelograms Retrograde pyelograms	Nephrectomy; postoperative irradiation
6. Coarctation of the aorta	Femoral pulses Determination of blood pressure in all four extremities	Resection of stenotic area
7. Patent ductus arteriosus	Frequent bouts of pneumonia Machinery-like murmur at left base	Surgical closure
8. Pheochromocytoma	Regitine test Urinary catechol amine test Intravenous pyelograms	Surgical excision
9. Cushing's syndrome	Clinical picture History of steroid therapy	Surgical excision; discontinue or decrease dosage of steroids
10. Congenital adrenal hyperplasia	Pseudohermaphrodism In males, masculinization Urinary steroid excretion pattern	Steroid therapy
11. Hyperthyroidism	Clinical picture PBI I^{131} uptake	Anti-thyroid medication; subtotal thyroidectomy
12. Central nervous system disease	Clinical picture Lumbar puncture Skull x-rays Ventriculogram	Supportive excision of tumor
13. Familial dysautonomia	Family history Clinical picture	Supportive sedation
14. Mercury poisoning	Clinical picture Urinary mercury excretion	(?) Steroid therapy
15. Lead poisoning	Clinical picture Anemia, stippled cells X-rays of long bones Urine coproporphyrin Urine lead excretion	Calcium ethylene diamine-tetra-acetic acid
16. Essential hypertension	Family history ? cold pressor and amobarbital tests	Phenobarbital; anti-hypertensive agents

TABLE IV. ANTI-HYPERTENSIVE AGENTS USEFUL IN PEDIATRICS

Drug	Site of Action	Parenteral Dose	Oral Dose	Side Effects
Rauwolfia serpentina (reserpine)	Central	0.10 mg./kg. I.M. and q. 8-12 hr.	0.12-0.50 mg. b.i.d. q.d. (0.02-0.03 mg./kg./24 hr.)	Drowsiness, nasal congestion, brady cardia, depression
Hydralazine hydrochloride (Apresoline®)	Central	0.10 mg./kg. I.M. q. 8-12 hr. (preferably in combination with reserpine)	10-25 mg. t.i.d. or q.i.d.	Early: Headache, palpitation, tachycardia, vomiting Delayed: Lupus erythematosus with rheumatoid arthritis, severe depression
Magnesium sulfate	? arteriolar smooth muscle	150-200 mg./kg. (5-7 cc. of a 3% solution/kg.) I.V. in one hour. 0.2-0.4 cc./kg. of 25% solution I.M. q. 4-6 hour.		Infrequent but manifest by respiratory depression; responds specifically to calcium gluconate
Mecamylamine hydrochloride (Inversine®)	Ganglionic blocking agent		1-6 mg. b.i.d.	Orthostatic, hypotension, constipation, paralytic ileus
Chlorothiazide (Diuril®)	? renal tubule arteriolar smooth muscle		30-50 mg. per kg./ 24 hr.	Hypokalemia

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tions, a reduction of blood pressure below 140/90 has not occurred, hydralazine hydrochloride by intramuscular injection will produce additive hypotensive effect. The recommended dosage is 0.10 mg./kg. The combined hypotensive effects continue for twelve to twenty-four hours. Thereafter, repetition of administration of the two above-mentioned drugs intramuscularly in the above dosages but given simultaneously may be continued as dictated by the course of the hypertension. In the presence of convulsions or heart failure, the combination may be used at the onset to treat the hypertension. Often, only one such injection will be required.

A time-honored and reliable agent, magnesium sulfate, has been widely used for the hypertension associated with acute nephritis. For intramuscular injection, a concentration of 25 per cent is utilized, administering 0.2 to 0.4 cc./kg. of weight. The drug is effective in one to two hours but frequently repeated doses will be required to maintain a satisfactory level of blood pressure. The use of magnesium sulfate has not been outmoded by the newer antihypertensive agents, but the need for frequent injections (four to eight hour intervals) of relatively large volumes (4 to 8 cc.) with the attendant pain at the injection site constitutes a distinct disadvantage.

It is to be emphasized that both the need for antihypertensive drug therapy in acute nephritis and the response to therapy are determined by serial blood pressure measurements. The program of therapy should be individualized for each child since the severity and duration of the hypertension is extremely variable.

(B) *Chronic Nephritis.*—In children, as in adults, chronic nephritis may be complicated by hypertension. The presence of a chronic renal disease may be suggested by certain symptoms: growth failure, refractory anemia, recurrent bouts of vomiting or dehydration, or both, without apparent cause. At times, however, the first symptoms may be identical to, and as precipitous in onset, as those encountered in acute nephritis. Separation of the two entities, thus, may not be made in certain children during the initial hospitalization. In such instances, long-term observation will be required to determine the ultimate diagnosis and prognosis.

It should be recalled that a chronic form of nephritis has been observed in childhood following anaphylactoid (Schonlein-Henoch syndrome) purpura, intensive irradiation to the abdomen, or associated with disseminated lupus erythematosis, progressive lipodystrophy, and polyarteritis. In general, the nephritis observed in these situations is progressive with a more rapid course than in the usual form of chronic nephritis.

Despite the persistence of renal disease as manifest by urinary abnormalities, the course of the hypertension in chronic nephritis may be quite variable. It may be severe during an exacerbation of the nephritis, then disappear several weeks or months later only to recur with subsequent flare-ups of the renal disease. On occasion in children, persistent hypertension requiring constant anti-hypertensive therapy may be encountered.

Management.—During an acute phase of hypertension when pressures are 140/90 or above, the program of therapy which we have employed has included as initial drugs, reserpine and chlorothiazide. Despite its marked antihypertensive effects in acute nephritis, magnesium sulfate is without effect in

chronic nephritis. However, this difference in response may be useful diagnostically at times in distinguishing between the two conditions.

1. The reserpine is administered parenterally using the dosage and schedule as outlined for acute nephritis.

2. Chlorothiazide has proved to be an effective hypotensive agent when administered alone to hypertensive patients,[14] but has in general been utilized to augment the effect of other anti-hypertensive drugs. The drug has been as effective in children as in adults, and is administered orally in divided doses in the total amount of 30 to 50 mg./kg./day.[5] Since chlorothiazide is thought to exert its major pharmacologic effect on hypertension through its action on renal transport of electrolytes, a reasonably good urinary flow should be present in the subject or the hypotensive response may not be depended upon. The major adverse effect of chlorothiazide has been a decrease of serum electrolytes, particularly potassium. In children on general diets, we have not encountered significant hypokalemia during long-term (six to twelve months) therapy but have observed its occurrence in subjects on low salt diets. For subjects on low sodium diets or those in whom hypokalemia develops, supplements of potassium chloride 2.0 gm. per day may be administered.

If the combination of reserpine (parenterally) and chlorothiazide (orally) do not lower the blood pressure satisfactorily, hydralazine may be added again utilizing the dosage outlined under the therapy of hypertension in acute nephritis.[11]

On a rare occasion, when the combination of reserpine, chlorothiazide, and hydralazine are unsuccessful in maintaining satisfactory reduction in blood pressure, a ganglionic blocking agent such as mecamylamine (Table IV) may be substituted for the hydralazine.

For long-term control of hypertension, oral therapy is preferred. The combination of reserpine and chlorothiazide has given good results in the majority of subjects under our care who have required long-term management. The chlorothiazide is administered, as discussed previously, in a dosage of 30 to 50 mg./kg./day. Reserpine is begun with a dosage of 0.12 mg. b.i.d. until control of hypertension is effected or signs of toxicity (severe nasal stuffiness, excessive drowsiness, depressive tendency) develop. As a general rule, we have not attempted to lower the blood pressure of these subjects to normal levels but have aimed at maintaining a range fairly close to 130-140/80-90. In individuals with renal disease and hypertension, a normal blood pressure may be incompatible with adequate renal blood flow, thereby impairing renal function.

In instances of failure to effect long-term control of hypertension or during exacerbations of severe hypertension, we have recommended hospitalization for optimal observations of the patient during additions of hydralazine or ganglionic blocking agents.

(C) *Obstructive Lesions of the Renal Arteries.*—Any lesion that can give rise to a significant degree of renal arterial stenosis may result in hypertension. In children this will include a variety of congenital lesions among which are stenosis of the renal artery, aneurysms and other aortic anomalies occluding the renal artery, and multiple renal arteries with stenosis or occlusion of one or more branches.[8] This group, while probably small, is very important since specific therapy is possible. The following case summary will illustrate this point.

Illustrative Case

The patient, a five-year-old girl, was seen for her pre-school physical examination and found to have a blood pressure of 186/140 which persisted upon repeat examinations. She was asymptomatic. The physical examination (including evaluation of her eye grounds) was entirely within normal limits except for the presence of significant hypertension. Urinalysis and renal function studies were normal. The intravenous pyelograms were also interpreted as normal. The administration of Regitine® did not produce a fall in blood pressure. A retrograde aortogram was performed by inserting a side-hold catheter into the aorta through the femoral artery and injecting 85 per cent Hypaque.® This study demonstrated stenosis of the right renal artery. Resection of the stenotic area and an end-to-end anastomosis resulted in a prompt fall in blood pressure to normal limits (110-120/70) where these levels have persisted.

Comment: It is important to stress that this child was entirely asymptomatic except for the finding of significant hypertension on the pre-school physical examination. Although the routine diagnostic studies (including intravenous pyelograms) were normal, aortography demonstrated the lesion which was removed by resection.

A cure of the hypertension resulted.

(D) *Renal Vascular Insufficiency Associated with Renal Hypoplasia and/or Chronic Pyelonephritis.*—Recently, Welch and his associates,[28] have reported a series of fifteen children with hypertension associated with pyelonephritis or renal hypoplasia who were treated by nephrectomy. Of eleven patients with unilateral disease so treated, long-term observations

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(two-and-one-half to eleven years) indicated an excellent response in eight patients. (Of four subjects, however, with bilateral renal disease but more severe in one kidney, removal of the predominantly diseased kidney resulted in a poor response in all four). This report focuses attention upon a recognizable and potentially remedial cause of hypertension in children in which a parenchymatous (congenital or acquired) renal defect appears to be associated with renal ischemia.

The symptomatology of children with this variety of hypertension may relate either to the hypertension, with resultant headaches, convulsions or cardiovascular symptoms, or focus attention to the urinary tract. The latter event is more common and in such cases, most frequently, signs of recurrent or persistent infection of the urinary tract are found. Regardless of the presence or absence of symptoms suggesting urinary tract infection, the possibility of a unilateral hypoplastic or degenerative renal lesion should be considered in all children found to have hypertension. Evaluation should include excretory urography as one of the initial steps in diagnosis. Demonstration of absent or poor function in one kidney, or a definable obstructive lesion is an indication for further determining the affected kidney's functional capacity. Frequently, valuable information may be obtained by so-called "split function" studies utilizing simultaneous bilateral ureteral catheterizations. At times (particularly in young children) such a procedure may be difficult to perform or unreliable in interpretation. An indirect method of obtaining similar data has been recently reported in which a small quantity of radioactive diodrast is injected intravenously and the rate and ultimate concentration of the material accumulated by each kidney is detected with a sensitive scintillation counter.[30] If the above investigations fail to indicate clearly the type and magnitude of the renal defect, aortography may afford an estimate of the comparative vascularity of the two kidneys, and contribute data essential in the decision regarding nephrectomy. Again, it should be emphasized that if both kidneys are found to be abnormal, although one kidney is clearly more abnormal than the other, removal of the more diseased organ may not result in a cure of hypertension.

Illustrative Case

We have recently observed this course in a three-year-old girl presenting with severe hypertension (260/180). Studies, including aortogram, demonstrated poor function and poor vascularity of the right kidney. The arterial supply to the left kidney was abnormal (three small arteries, no main trunk) but blood flow appeared good. Elective right nephrectomy produced a significant drop in blood pressure but never to normal, and evidences of disease in the left kidney were persistently demonstrated (albuminuria, slightly elevated blood urea nitrogen). Following a period of one year during which time blood pressure was maintained at 150/100 (using continuous drug therapy), a sudden rise of blood pressure occurred which did not respond to numerous hypotensive agents. A surgical attempt (splenorenal arterial shunt) to improve blood supply to the remaining left kidney was unsuccessful and the patient succumbed to congestive heart failure several days following the surgical procedure.

(E) *Renal Neoplasms.*—The presenting symptoms of a child with an embryoma of the kidney (Wilm's Tumor) is most commonly the finding by the mother or physician of a painless swelling in the abdomen. Urinary complaints are rare but hematuria is occasionally observed. In a small percentage (approximately 10 per cent) hypertension is detected. The occurrence of hypertension is significant primarily in affording confusion in differential diagnosis. Although the firm feel of a solid tumor is quite distinct from that noted in a cystic collection of fluid (massive hydronephrosis for example) at times the hydronephrotic sac may be under sufficient tension to give the examiner the impression that he is palpating a solid mass. Thus, the presence or absence of hypertension does not differentiate between the cause for the mass. If prompt investigation (including intravenous pyelography and perhaps retrograde pyelography to rule out hydronephrosis) demonstrate that a renal tumor is indeed present, it is, of course, an indication for immediate removal followed by postoperative irradiation as outlined by Gross.[18]

(F) *Post-irradiation Nephritis.*—The occurrence of a clinical picture of chronic nephritis with hypertension following irradiation to the abdomen has been observed in children treated for abdominal neoplasms. Fortunately, it is not a common sequella. The nephritis may develop a few months following irradiation[31] or several years later.[21] The disease may show a rapid termination to uremia, or may follow a more leisurely progression. The following case is considered an example of post-irradiation nephritis, although a biopsy to confirm the diagnosis was not obtained.

Illustrative Case

A boy, aged fourteen, was seen by his family physician for a routine pre-school examination on August 18, 1958. On that occasion, hypertension, hematuria, and albuminuria were found. He then was referred to the University Hospital for further evaluation. Past history revealed that the

patient had had a right nephrectomy at the age of three-and-one-half years. Pathologically, the right kidney parenchyma was replaced by a tumor mass with characteristics typical of a Wilm's tumor.

The patient received irradiation therapy preoperatively and postoperatively with a total dosage of 1675 Roentgens to the right anterior abdomen and 1650 Roentgens to the right posterior abdomen. Over the past three months the patient had had frequent headaches accompanied by ease of fatigue.

Physical examination on admission on August 25, 1958, revealed a boy not appearing ill. Blood pressure was 180/110, pulse rate was 80 per minute and respiratory rate was 20 per minute. Minimal papilledema was present bilaterally with some tortuosity and AV nicking of the blood vessels. Urinalysis showed 2+ to 3+ albuminuria and microscopic hematuria. A twenty-four-hour urea clearance was normal and the excretory pyelogram showed a normal, but hypertrophied, kidney on the left. A Regitine test was negative.

The patient was discharged on a daily dose of reserpine 0.25 mg. q.i.d. orally, and his blood pressure has decreased subsequently to approximately 140/80. He is symptom-free, but albuminuria and hematuria persist.

II. *Cardiovascular*

(A) *Coarctation of the Aorta.*—Routine palpation of the femoral pulses constitutes an extremely important part of the pediatric physical examination. Inability to palpate the femoral pulse, diminished femoral pulsations, or a pulse lag in the lower extremity, should be followed by blood pressure determinations in the arms and legs. The presence of hypertension in the arms and relative hypotension in the legs is diagnostic of coarctation of the aorta. It is worthwhile to compare readings in the upper extremities since the left arm reading will be significantly lower if the left subclavian artery is at or below the site of coarctation. Concerning surgical management, we have felt that repair should be undertaken between ages eight and twelve years. However, in the infant who presents with congestive heart failure and cannot be maintained on a medical program, earlier operation must be performed.

(B) *Patent Ductus Arteriosus.*—Bounding peripheral pulses, a widened pulse pressure in association with a machinery-like murmur (heard best at the left base) should diagnose the presence of a patent ductus arteriosus. Similar findings with the murmur localized somewhat lower along the left sternal border would suggest the possibility of an aorticopulmonary fenestration. Hypertension may occur in the postoperative period following repair of a patent ductus arteriosus probably due to a sudden increase in the systemic blood volume. This is usually transient and requires no specific therapy except to limit intravenous fluids over the immediate postoperative period. In regard to the time for surgical correction, we have recommended surgical repair as soon as the diagnosis is established regardless of age as long as a flow from the aorta to the pulmonary artery exists. Recent evidence would suggest that if these children are to realize their full growth potential, repair should take place prior to age three years, particularly in symptomatic patients.[10]

III. *Endocrine*

(A) *Disorders of the Adrenal Gland.*—

(1) *Pheochromocytoma.*—Daeschner[6] has reviewed sixteen published reports of this tumor occurring in children under the age of fourteen years. Since this entity represents a curable type of hypertension, considerable effort should be made to establish the diagnosis. In children the hypertension is more likely to be persistent rather than occurring in paroxysmal episodes as had been described in adults. The Regitine test[15] when positive as evidenced by a significant drop in blood pressure following its intravenous administration is highly suggestive of the presence of a chromaffin tumor. False positive and negative results have been reported. Therefore, this test may only be considered a screening device. At present, the determination of the urinary catechol amines which are markedly elevated in the presence of a pheochromocytoma is the diagnostic procedure of choice. An intravenous pyelogram may aid in abdominal localization. It is well to point out that these tumors may be extra-adrenal, bilateral, and can occur in the thorax.

(2) *Cushing's Syndrome.*—Adrenal tumor or hyperplasia may produce the characteristic clinical picture of buffalo-type obesity, moon facies, striae, acneiform eruption and hirsutism. Hypertension occurred in approximately 90 per cent of the reported cases.[29] More commonly, Cushing's syndrome may appear secondary to the use of steroid therapy. No steroid preparation in current use has been free of this side-effect.

(3) *Congenital Adrenal Hyperplasia.*—Eberlein and Bongiovani have described a seven-and-one-half-year-old female pseudohermaphrodite who had associated hypertension.[9] The steroid excretion pattern in the urine differed from the usual pattern seen with the adrenogenital syndrome suggesting another enzymatic

defect in steroid biosynthesis. On cortisone therapy, the blood pressure fell to normal limits.

(B) *Thyroid Disorders.*—In a review of a large series of children with hyperthyroidism, Kennedy has reported almost constant elevation of the systolic pressure and pulse pressure.[20] Attention is usually directed to the presence of thyroid enlargement, eye changes, weight loss (despite increased appetite), weakness, irritability, and thermal sensitivity. Hypertension will subside on a program utilizing anti-thyroid medication or following thyroidectomy.

IV. *Central Nervous System*

(A) *The presence of hypertension in association with brain tumors,* according to Ford,[13] is rare. Hypertension has been noted with inflammatory disease and cerebral hemorrhage secondary to trauma. In poliomyelitis, elevation of the blood pressure may occur during the acute stage in association with the bulbar form, or during the convalescent stages the explanation of which not being completely understood. In all instances where hypertension occurs with disorders of central nervous system, the neurologic findings predominate, with elevation of the blood pressure a secondary finding.

(B) *Familial Dysautonomia.*—This condition is manifested by specific disorders of autonomic function including diminished lacrimation, hyperhydrosis, transient skin blotching, abnormal swallowing reflex, behaviorial disorders, and faulty temperature control. Almost all cases described have occurred in Jewish children. Many patients exhibit a labile blood pressure with swings from hypertension to postural hypotension.[25]

V. *Poisonings*

Of the many substances which children ingest, mercury and lead are the only significant agents producing severe persistent hypertension in the pediatric age group.

(A) *Mercury.*—The classic picture of mercury poisoning has been termed acrodynia and in the typical case is manifest by extreme irritability, listlessness, photophobia, erythematous, wet, cold fingers and toes. Hypertension is frequent and severe. Of seven patients all under four years of age with acrodynia, observed at the University Hospital over a six-year period (1948-1954), two had severe hypertension (180-210/120) and three had moderate hypertension (125-140/90). The diagnosis is made by recognition of the clinical picture and confirmed by the detection of abnormal quantities of mercury in the urine. Therapy with steroids and supplementary sodium chloride has been recommended.[2,3]

(B) *Lead.*—Hypertension in lead poisoning occurs in conjunction with other manifestations of the clinical and laboratory picture: encephalopathy, anemia with stippled erythrocytes, radiographic changes in the long bones, glycosuria and aminoaciduria. A history of exposure may be helpful in supporting this diagnosis. A clinical suspicion of lead poisoning should establish the need for careful review of the history. Laboratory studies should include a determination of the lead excreted in the urine. Calcium ethylenediamine tetraacetic acid (EDTA) has been proven clinically effective in the therapy of children with lead poisoning. During the phase of encephalopathy with marked cerebral edema, surgical decompression of the brain has been recommended as an aid in the prevention of further cerebral damage.[23]

VI. *Essential Hypertension*

Haggerty and his co-workers,[19] reviewed a series of nine patients thought to have essential hypertension. Only ten other authenticated cases have been reported, testifying to the rarity of this entity in children. Five of the patients had severe hypertension with secondary retinal and renal changes, while in the other four, blood pressure recordings were never over 160/110. In the latter group, a positive family history of hypertension was obtained. The diagnosis must be established on the basis of exclusion of other causes of hypertension, because no definitive test is available at present.

Summary

Hypertension may be as damaging to the child as to the adult. The routine pediatric examination should include determination of the blood pressure. This is particularly pertinent inasmuch as many of the causes of hypertension in children can be completely corrected by appropriate therapy.

Establishment of the presence of significant hypertension in a child requires consideration of the technique utilized in measurement, the emotional state of the child at the time of blood pressure determination, and the normal range of blood pressure for a particular age group.

The more frequent causes of hypertension in childhood have been discussed. The salient features of

diagnosis and current methods of management have been emphasized.

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The Pituitary Gland in the Production of Atherosclerosis

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IT IS the purpose of this article to present experimental data pointing to the role of the pituitary in the production of atherosclerosis. Aschoff[1a] stated that Marchand coined the expression "atherosclerosis" to indicate "the peculiar changes observed, especially in elderly individuals, in the intima of the aorta and large vessels of the elastic type, which are so characteristic of the clinical picture generally termed atherosclerosis. We are indebted to Virchow for the first accurate histological description of the entire process."

Aschoff[1b] stated that Virchow's conception of atherosclerosis was:

The entire atheromatous process represents a primary loosening of the intimal layer, due to infiltration of blood plasma, which is accompanied or followed by a growth of intimal cells and a more marked vascularization of the media. Thus it is an active process in which a fatty metamorphosis of the different layers may take place as well in an entirely passive manner.

The *primum movens* of the entire irritative process is therefore a loosening of the internal coat.

Aschoff's summary of atherosclerosis[1c] in his Lane Lecture at Leland Stanford University bears repeating.

In the atherosclerotic process of the vessels there is a peculiar process of wear and tear of a molecular nature, which we cannot at present understand, but which through subsequent swelling and precipitation processes, especially of lipoid substances and secondary transformation to calcium compounds, acquires a characteristic stamp. It involves a definite specific disease of the supporting substance which occurs not only in the vessel wall, but in other parts of the body as well. Thus the calcium infarct of the kidney papillae, really a fat calcium infarct, is a typical atheromatosis of the kidney supporting substance, which undoubtedly depends on a wear and tear and imbibition process from the continuous tumescence and detumescence of the underlying kidney papillae. To the atheromatous changes belong the so-called senile degeneration of cartilage and the arcus senilis of the eye. As we consider the atheromatosis of the vessels in the light of the larger category of the general processes of wear and tear of the supporting substances, it loses its special qualities which have given rise to so many erroneous theories of infection, et cetera. If that process of wear and tear impresses us most strikingly in the vessel wall, it is due to the fact that our vascular system is the organ which is mechanically under greatest strain.

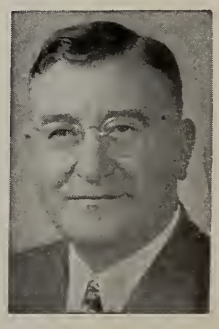
Experimental Data

In experimental work begun in 1929 and published in 1930,[14,15] it was reported that posterior lobe extract injected into rabbits being fed a high cholesterol diet produced extensive atheromatous changes much greater in intensity than either a high cholesterol diet or posterior lobe extract. I would like to review the changes found in four groups of rabbits which were divided as follows:

Control Group.—Five normal rabbits on a normal laboratory diet.

Group A.—Five rabbits on a normal laboratory diet plus the addition of 12 cc. cotton seed oil and 4 gm. of anhydrous lanolin for each rabbit.

Group B.—This group consisted of ten rabbits which were placed on the same high fat diet as Group A and in addition received 1 cc. of obstetrical posterior lobe extract (Parke Davis and Company's Commercial Obstetrical Pituitrin) injected either subcutaneously or intraperitoneally.



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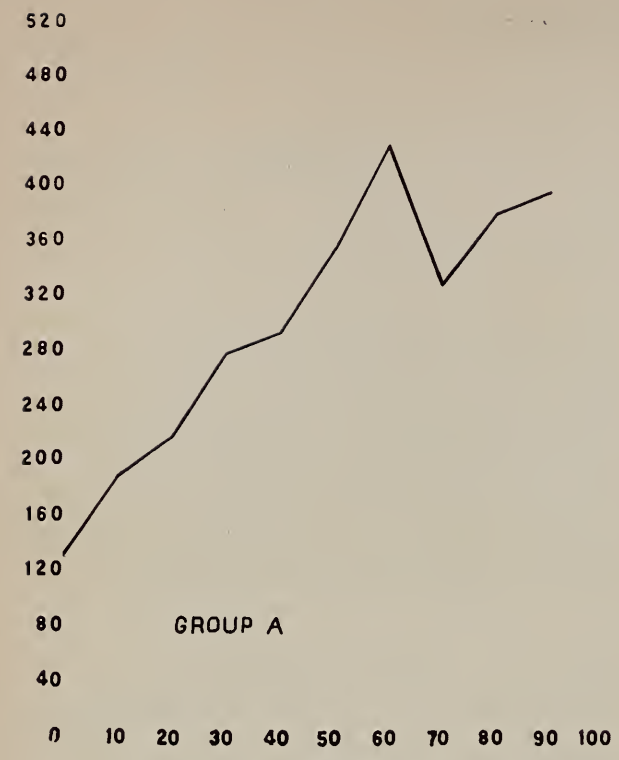

Fig. 1. Group A—On a high cholesterol diet showing rise of cholesterol to 440 mgms. The horizontal lines represent days, the vertical lines, cholesterol in mg.

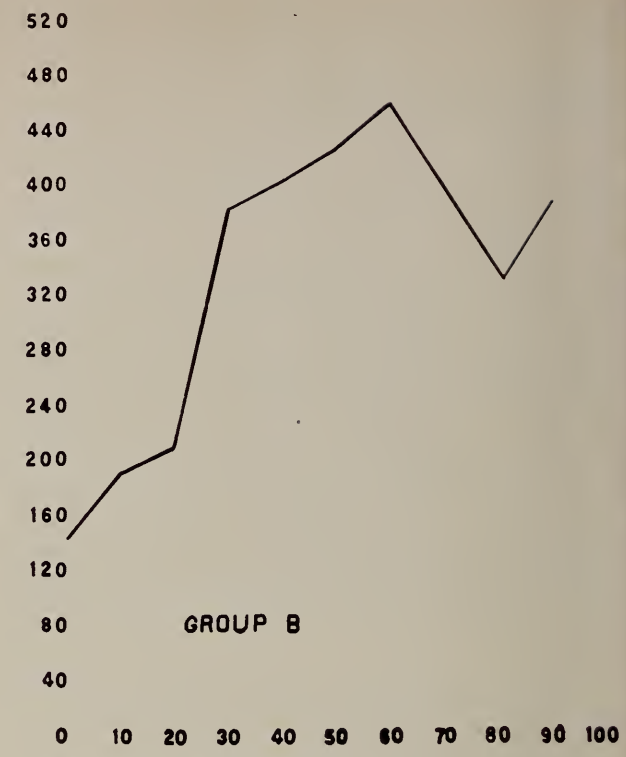

Fig. 2. Group B—On a high cholesterol diet plus posterior lobe extract showing rapid rise of cholesterol to 480 mg.

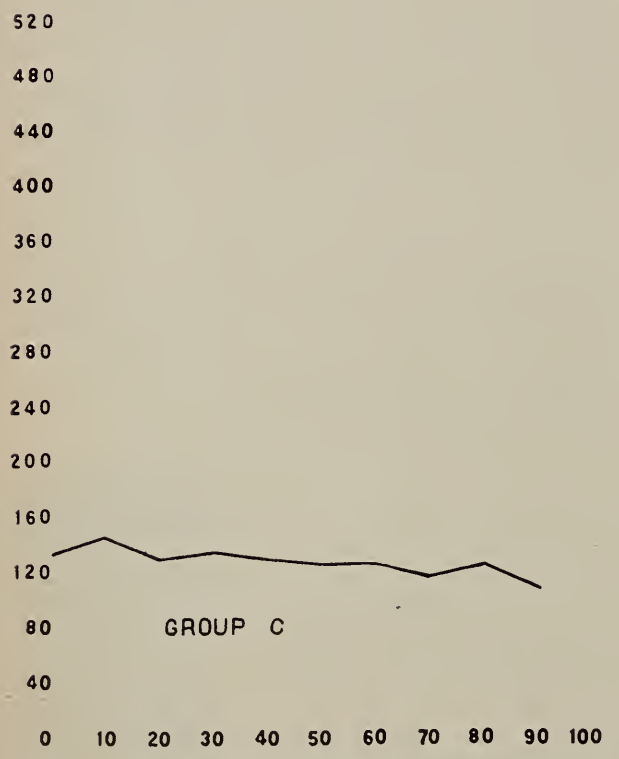

Fig. 3. Group C—On a normal diet plus posterior lobe extract—practically a normal curve—same as control group.

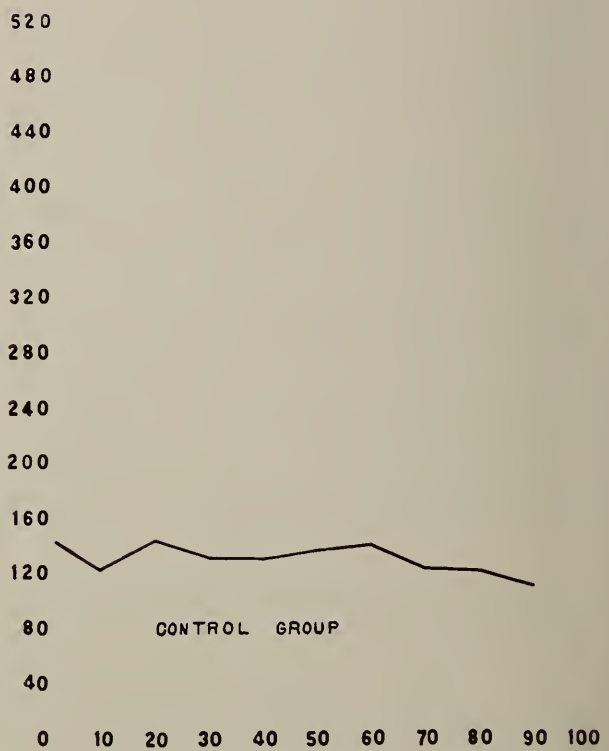

Fig. 4. Control group—no change in cholesterol values.

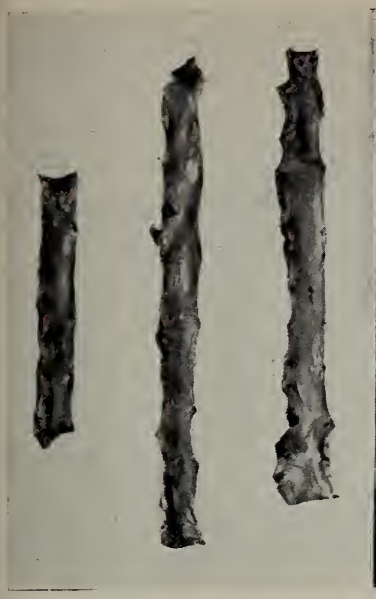

Fig. 5. Extensive and marked atherosclerotic changes in aortas from Group B (high cholesterol diet plus posterior lobe extract).

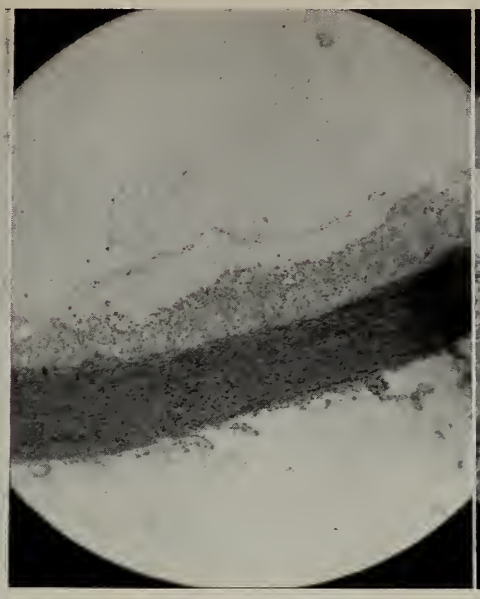

Fig. 6. Microscopic section from an aorta of Group B showing extensive cholesterol deposit.

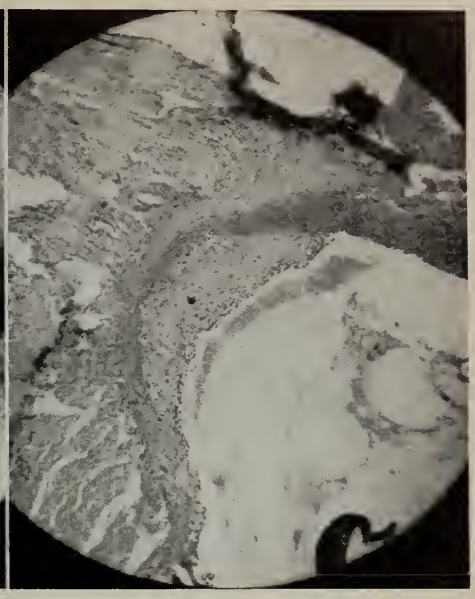

Fig. 7. Coronary artery from a rabbit of Group B showing extensive cholesterol deposit.

Group C.—This group of ten rabbits was placed on a normal laboratory diet the same as the control group and, in addition, received daily 1 cc. of posterior lobe extract.

The first week the injections were given twice a day and following this, once a day over a period of 100 days so that the average amount injected was 107 cc. of posterior lobe extract.

A composite curve of the cholesterol estimations made every ten days on each group shows that the cholesterol curve rises quickest and highest in Group B (high fat diet plus posterior lobe extract) reaching close to 480 mg. (Fig. 1). Group A (high fat only) reaches 440 mg. (Fig. 2).

Group C (posterior lobe extract) shows a small initial rise and then flattens out. (Fig. 3). This is similar to the control group (Fig. 4) and indicates that the extract did not have an appreciable effect on the blood cholesterol.

In examining the aortas, it was found that those of Group B showed the most intense and extensive atheromatous deposits, exceeding by far those in the other groups. (Fig. 5).

These aortic atheromatous deposits are readily seen in the microscopic sections (Fig. 6).

The coronary arteries of this group also show an equal extensive atheromatous deposit (Fig. 7).

The aortas of Group A (high fat diet), while showing atheromatous deposits, did not compare in intensity with those of Group B (Fig. 8). This is verified by a study of the microscopic sections (Fig. 9). The aortas of Group C showed only slight deposits. These were not uniform but some (aorta on right in Fig. 10) equalled those of Group A.

Since the adrenal cortex is a factor in cholesterol-steroid metabolism, it is of interest to note the changes in the adrenal weights as well as in the microscopic picture of these groups.

Average Adrenal Weights

Control Group (Normal Diet)	278 mg.
Group C (Normal Diet plus posterior lobe injections)	415 mg.
Group A (High Fat Diet Only)	435 mg.
Group B (High Fat Diet plus posterior lobe injections)	639 mg.

The adrenal weight correlated with the body weight (combined weight of adrenals divided by body weight multiplied by 100,000) gave the following adrenal indices:

Control Group (Average Index)	22.948
Group C (Normal Fat Diet)	37.52
Group A (High Fat Diet)	38.52
Group B (High Fat Diet plus injections)	54.845

On microscopic section, the control group showed no changes in the adrenals (Fig. 11).

The adrenal cortex of Group A showed extensive lipoidosis with hypertrophy indicating increased activity (Fig. 12).

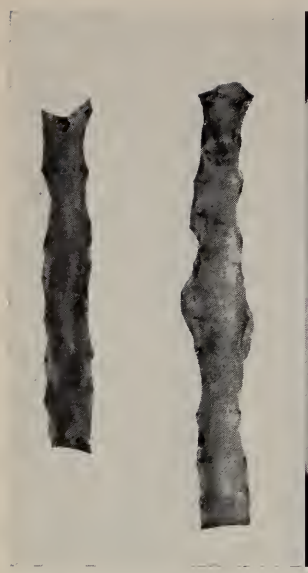

Fig. 8. Aortas of Group A (high cholesterol diet) showing atheromatous deposits.

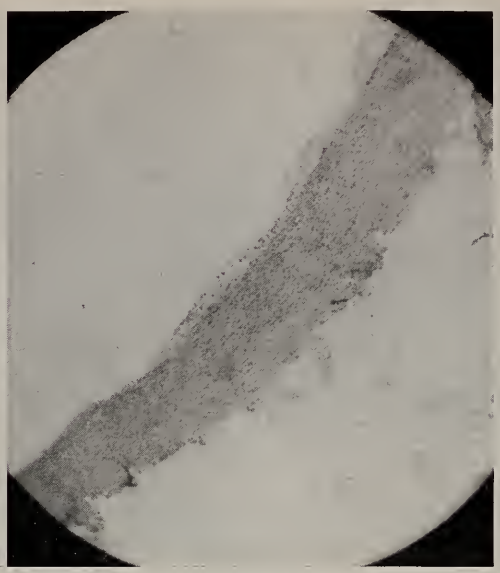

Fig. 9. Microscopic section from aorta of Group A.

Fig. 10. Aortas of Group C (normal diet plus posterior lobe extract) showing slight atheromatous deposits.

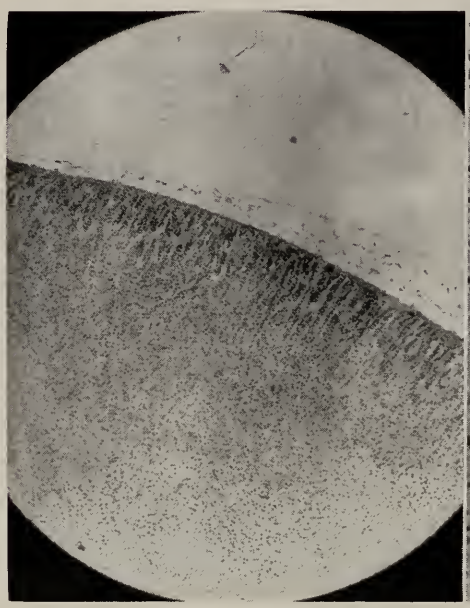

Fig. 11. Adrenal cortex of control group (normal).

Fig. 12. Section of adrenal from Group A showing lipoidosis.

The adrenals of Group B showed marked lipoidosis with enlargement of the glomerular zone. They gave the appearance of extreme exhaustion from excessive stimulation (Fig. 13).

The kidneys from Group B showed marked interstitial lipoidosis with areas resembling the fat calcium infarct of the kidney papillae described by Aschoff. There was well marked arteriolar degeneration with localized areas of round cell infiltration fibrosis of the tubules and glomeruli and retraction of the kidney capsule (Fig. 14).

The ovaries of Group B showed extreme lipoidosis of the ovarian stroma which has undergone a uniform change somewhat resembling the adrenal cortex and corpus luteum. There was extreme overloading of all stroma cells with fat. There were many ripened and ripening follicles. The follicular tissue had been pushed to the extreme rim of the organ just beneath the capsule by the hypertrophic lipoid stroma (Fig. 15).

It is evident from the foregoing that those rabbits receiving posterior lobe injections have a much greater adrenal weight than the non-injected groups. This

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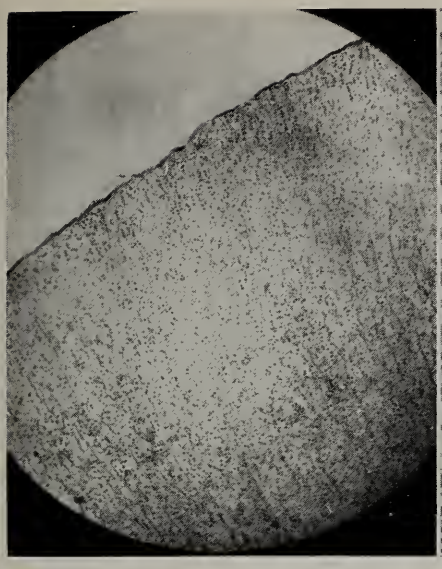

Fig. 13. Section of adrenal from Group B showing enlargement and lipoidosis with extreme exhaustion.

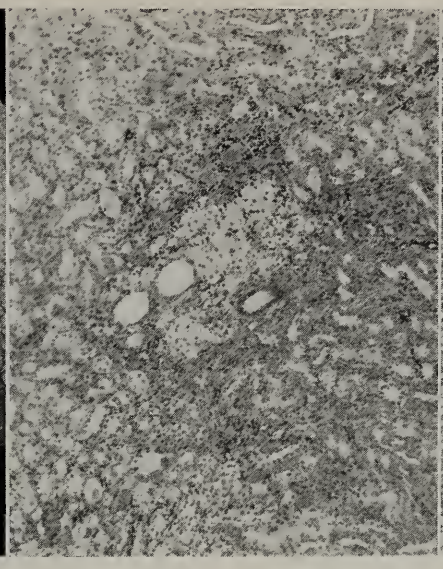

Fig. 14. Section of kidney from Group B showing marked lipoidosis-central area showing fatty infarction.

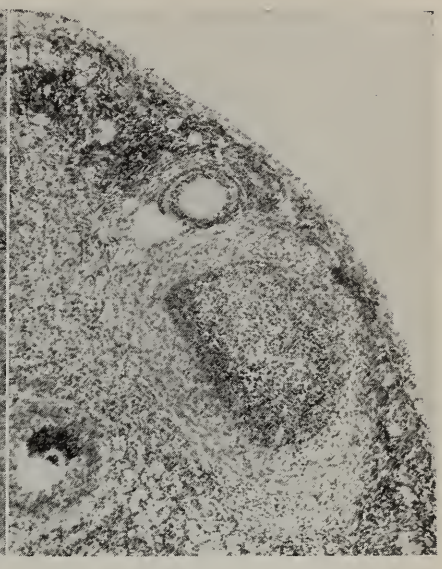

Fig. 15. Section of ovary from Group B showing lipoidosis, areas of extreme overloading of stroma cells with fat, many follicles near surface beneath capsule.

(Continued from Page 94)

is also seen in the average adrenal indices. Group C, on a normal diet plus the injections of the extract, had an average increase over the control group of 137 mg. Group B, on a high fat diet plus the injections, had an average increase of 204 mg. over the group on high fat diet alone, and an average increase of 361 mg., over the controls. The increase shown microscopically was confined to the cortex.

The vascular changes show that the factor which produced the greatest pathologic atheromatous change was the posterior lobe extract. Thus, there is a vasoconstrictor factor in addition to the cholesterol which produced the most prominent vascular changes.

The enlargement and increased weight of the adrenals receiving posterior lobe injections, even without a high cholesterol diet, requires explanation. Recent work[7,16] indicates that this extract activates the anterior pituitary to release ACTH with subsequent increase in the size and weight of the adrenal.

There are embryologic, anatomic and physiologic connections between the hypothalamus, and the posterior and anterior pituitary. There is evidence[6] indicating that the hypothalamus can release posterior lobe hormone which, in turn, activates the adrenal cortex. Goodman and Gilman stated that "It is generally accepted that the stimulus for the release of hormone arises in the hypothalamic nuclei." They go on to say that "there is strong evidence which indicates that the hormone is formed by the nerve cells in the supra-optic and paraventricular nuclei of the hypothalamus." The hormone then passes along the nerve fibers into the neurohypophysis and accumulates in the perivascular areas around the terminations of the nerve fibers. It seems most likely that stress and strain, shock, infections, severe trauma, toxemias, and other conditions set the hypothalamic-pituitary (posterior and anterior) mechanism into activity. These stresses set the whole mesodermal defense forces into action, not the least of which is the immune mechanism, the reticulo-endothelial system. It is well known that such stress conditions activate the pituitary gland, and in the growing child, the osseous system is stimulated, and rapid growth results.

Chronic stress and worry, therefore, are likely to result in hypertension and arteriosclerosis. Conditions and diseases which chronically activate the hypothalamic-pituitary system are likely to be the prime factors in hypertension and arteriosclerosis. The wear and tear on the nervous-vascular system as part of our daily living is due, in part at least, to the varying secretion of the posterior lobe's vasoconstrictor effect on the vascular system.

There are other facts which lend support to the pituitary's influence in atherosclerosis. For instance, it is known that the posterior pituitary hormone is able to overcome insulin hypoglycemia.[3,11] A rabbit receiving 80 units of regular insulin almost always dies with hypoglycemic convulsions but the injection of 1 or 2 ml. of posterior lobe extract restores the animal's blood sugar to normal and recovery ensues. This may be understood by the release of ACTH from the anterior lobe since this hormone is an activa-

tor of carbohydrate metabolism. This suggests the close relationship which exists between the posterior and anterior lobe, carbohydrate metabolism and the great frequency of atherosclerosis in diabetes mellitus.

An additional step in understanding this relationship is the fact that epinephrine also has the ability of overcoming insulin hypoglycemia. Does the epinephrine overcome the insulin hypoglycemia by stimulating the hypothalamus via the sympathetic fibers thence to the posterior lobe and, as stated, activation of the anterior lobe with release of ACTH? Attention is called to the fact that the posterior lobe is an ectodermal nervous tissue derivative and responds to nervous impulses, whereas the anterior lobe is also an ectodermal derivative but originates from Rathke's pouch.

Borchardt[2] found that posterior lobe extracts produce glycosuria. Excitation of the superior cervical sympathetic ganglion can produce glycosuria. This has been attributed to pituitary hyperfunction.[4]

Many years ago (1914)[9] it was stated that the pituitary gland has a selective action on the mesodermal tissues. Subsequent articles enlarged upon this.[10,12,13] Today the pituitary-mesodermal (mesenchymal) relationship is discussed as "collagen diseases." The discovery of ACTH and cortisone brought this relationship into the foreground.

As related to the present article of the pituitary gland in the production of atherosclerosis, overactivity of this gland would result in mesodermal connective tissue overgrowth in the vascular layers, contraction of the smooth muscle, activation of cholesterol (fat) and carbohydrate metabolism. Mention is made of the well-known diabetes mellitus seen in overactive pituitary states such as acromegaly, gigantism, and basophilism.

Basically, the pituitary in acromegaly and gigantism produces a marked development of the mesodermal vascular system, as well as an increase in the mesodermal blood volume; otherwise, no growth would ensue. This is well illustrated in the osteitis deformans of Paget in which disease there is as much as twenty times the normal increase of blood flow in the affected bones resulting in an overgrowth of the osseous system with increased local bone temperature (Edholm, Howarth and McMichael).[5]

Finally, Krogh and Rehberg's earlier work on the posterior lobe secretion and capillary tone bears repeating.[8] They found that in amphibians, the tone of the capillaries and arterioles was controlled by the posterior lobe secretion. Hypophysectomy in amphibians caused marked capillary and arteriolar dilatation and an increase in capillary permeability to saline solutions, with the rapid formation of edema; in the toad, a 40 per cent fall in blood pressure, which is not observed after removal of the pars distalis alone, or a lesion in the tuber. The blood pressure level is restored by the injection of posterior lobe extract.

Summary

In the article previous experimental data showed that the most extensive atheromatous changes were found in the group of rabbits which were fed on a high cholesterol diet and received, in addition, injections of posterior pituitary extract for a period of 100 days. Extensive changes were found in the aorta, coronary arteries, and kidneys. The group of rabbits receiving only a high fat diet and no injections of extract did not show vascular changes in any comparable degree. The serum cholesterol estimations showed that while the group on a high cholesterol diet had a marked rise, the high cholesterol diet *plus* the posterior lobe hormone injection produced the quickest rise and highest cholesterol curve. Furthermore, the adrenal weights showed striking differences. They were as follows:

Average Adrenal Weights

Control Group (Normal Diet)	278 gm.
Group C (Normal Diet plus posterior lobe extract)	415 gm.
Group A (High Fat Diet Only)	435 gm.
Group B (High Fat Diet plus posterior lobe injections)	639 gm.

Thus it shows that under the conditions of the experiment, those rabbits receiving posterior lobe injections (Groups C and B) have a much higher adrenal weight than the non-injected group. This same difference is evident in the adrenal weight-body weight indices.

Control Group (Average)	22.948
Group C	37.52
Group A	38.52
Group B	54.845

The increase was confined to the adrenal cortex.

The aforementioned vascular changes of greatest degree, as well as the greatest adrenal weights and body indices, were in the two groups receiving posterior lobe extract.

It is evident that besides a cholesterol element, a vaso-constrictor element played a major role in producing the greatest vascular and adrenal cortex changes.

The ovaries of the high cholesterol-pituitary injected group showed extreme lipoidosis of the ovarian stroma, with changes resembling the adrenal cortex and corpus luteum.

The relationship of both the anterior and posterior pituitary lobes to the mesoderm helps to explain the role of this gland in the production of atherosclerosis.

Furthermore, both anterior and posterior lobes of the gland play a role in carbohydrate metabolism thus adding a link to the explanation as to why the diabetic patient is so frequently afflicted with atherosclerosis.

The embryologic, anatomic, and physiologic relationship between the sympathetic nervous system, the hypothalamico-pituitary-adrenal cortex mechanism adds to the understanding of how chronic stress, infections, toxemia, trauma, and shock would lead to atherosclerosis.

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   (a) p. 131, (b) p. 132, (c) p. 152-153.
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964 Fisher Building

CONGENITAL ARTERIOVENOUS COMMUNICATION

(Continued from Page 81)

factor determining the rare discovery of such lesions. Except for a chance routine x-ray, this man might have lived a long time without the discovery of his condition.

Previous articles on A-V communications have included the suggestion that complete removal of the lesion is probably the most satisfactory method of dealing with the problem. Our experience with this patient concurs in this judgment.

The last point of interest is one of histopathologic concern. Under microscopic surveillance, the structural similarity of congenital A-V communication to that of hemaingioma creates a major difficulty in identification without previous knowledge of the history of the case. Therefore, the pathologist has to be informed of the clinical findings in order to arrive at a compatible diagnosis.

Summary

1. A congenital A-V communication of an unusual location is reported.

2. Some of the difficulties of differential diagnosis as well as histopathologic diagnosis are discussed.

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Mitral and Aortic Stenosis

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Mitral Stenosis

OF ALL forms of acquired heart disease, mitral stenosis has been most effectively treated by surgical methods. Basically, mitral stenosis is a mechanical lesion and might therefore be expected to yield to mechanical methods. It is almost always the late result of rheumatic heart disease. The defect consists of fusion of the free edges of the bicuspid valve leaflets, and scarring and contracture of the leaflets and the valve ring. The effect of this is to reduce the size of the opening between the left auricle and the left ventricle so that the volume of blood which can pass into the ventricle during diastole is slowly but progressively reduced. As this occurs over the years, there is a typical and logical sequence of progressive disability. At first, when the stenosis is of such size as to limit the diastolic flow of blood only in the upper ranges of required volume flow, the patient notices limitation of exercise tolerance only during periods of greatest activity. As the stenosis increases there is progressive limitation of exercise capacity to the point where minimal amounts of exercise may be difficult or impossible. Conditions which normally increase the cardiac output, such as pregnancy, fever, and emotional stress, produce the symptom-complex of failure because the required increase in minute volume flow is impossible through the stenotic mitral valve.

Physiologically speaking, the obstruction at the mitral valve progressively raises the interauricular pressure, the pulmonary capillary pressure, the pulmonary artery pressure, and eventually the right ventricular pressure. Accordingly, there is enlargement of the left auricle, pulmonary edema, hypertrophic pulmonary arteriolar changes, and enlargement of the right ventricle. This latter may produce dilatation of the tricuspid valve ring with tricuspid insufficiency and right auricular and venous pressure rises, which, in turn, produce distention of the neck veins, enlargement of the liver and peripheral edema. Hence the symptomatology of "backward failure."

Inadequate flow into the left ventricle produces reduction in left ventricular output to the arterial system with the result that there is increasingly easy fatigability, coldness of the hands and feet, and gradual weight loss. These are of course symptoms of "forward failure."

About the stage when definite limitation of moderate physical exercise is encountered, it is common to observe irregularities of the cardiac rhythm, which eventually end in established auricular fibrillation. This irregularity further reduces the pumping efficiency of the heart and permits the formation of intra-auricular clots which may become free and be pumped into the arterial circulation where they produce embolic phenomena, manifestations of which depend upon the size and the chance lodgment of the embolus. The results of these vary from permanent hemiplegia or extremity loss to inconsequential small areas of infarction.

Our experience with the surgical correction of this lesion over the past eight years is that mitral commissurotomy offers a very significant improvement in about four out of five of all cases operated upon.

The ideal time for the operation is when the patient begins to have clear-cut exercise tolerance limitation. If a patient cannot ascend a full flight of stairs without stopping to breathe and if he cannot walk a full block at a normal pace, the valve opening is then just slightly larger than finger tip in size. Withholding the operation permits further deformity and calcification of the valve cusps, which may render correction less effective. If auricular fibrillation has not already

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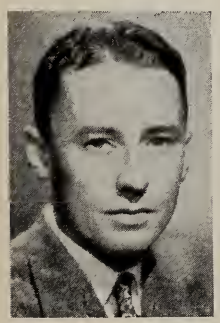

THE AUTHOR

James B. Blodgett, M.D.

occurred, deferring operation may permit the onset of this arrythmia with the attendant risk of arterial embolization. In addition, delay in correction may permit the pulmonary vascular changes to be so extensive that they are irreversible.

If a patient with mitral stenosis has had one or more arterial embolic episodes, the operation should be carried out forthwith since following recovery from commissurotomy, embolization is very rare and the chance of a second embolus in a patient who has had one is very high unless operation is done. The reason for this is that the clots tend to form in the recesses of irregular auricular appendages of patients in auricular fibrillation, and if a patient has had one embolus he has an established nidus for clot formation and he is much more likely to have another embolism than a patient who has never had one.

In considering the desirability of operative correction of mitral stenosis, the matter of other valvular involvement must, of course, be assessed. Although many cases of almost "pure" mitral stenosis do occur, many patients exhibit some degree of mitral regurgitation and may also have other valve involvement, the most common being aortic stenosis or regurgitation. At the present time, it is our impression that moderate degrees of either aortic regurgitation or mitral regurgitation do not contraindicate mitral commissurotomy for stenosis, if the stenosis is the predominant lesion.

The mortality risk of mitral commissurotomy done in a patient who has not progressed to the point where he is in chronic failure, is below 5 per cent. This compares favorably with the over-all risk of biliary surgery, and is less than the annual risk of maintaining these patients on a nonoperative regime. The percentage of significant improvement following commissurotomy in properly selected cases is about 85 per cent.

Studies of late results have shown that the postoperative group maintain a very favorable status during the subsequent years. It is known that a certain deterioration of technically well done cases may occur in a small percent and be due to certain facts. The first is the progress of other valvular lesions, such as aortic stenosis, aortic regurgitation, or mitral regurgitation. The second is restenosis of the valve cusps. This occurs in about 5 per cent of patients and may be apparent two or three years after the commissurotomy. Our experience with re-operating on these patients, so far, is that the mortality risk is no higher and the functional results of re-operation have been satisfactory.

In the past, we have judged that open cardiotomy with the pump oxygenator is not justified for mitral stenosis but with our increasing experience in this field, certain complicated situations of stenosis and regurgitation may well be better treated by the open approach.

Aortic Stenosis

Aortic valvular stenosis is also an acquired valvular disease which is amenable to surgical correction. Although the fundamental anatomic and physiologic defect is the same as in mitral stenosis (in the sense that with increasing aortic stenosis there is increasing obstruction to flow during the period when the valve is open), the secondary physiologic effects and course of the disease is very different. As the stenosis increases there may be very marked thickening and calcification of the valve cusps, and late in aortic stenosis, the valve may be very deformed, having the appearance of an irregular hard tile with a tiny opening somewhere near the center. The calcification and connective tissue scarring may also involve the openings of the coronary arteries, which impose the burden of insufficient coronary artery flow on the already overworked left ventricular muscle.

It is an interesting fact that the ventricular muscle by increasing its work and by subsequent hypertrophy, may so well compensate for the increasing stenosis of the valve that the patient may be quite unaware of any cardiac disability until quite late in the pathologic sequence. At first he may only notice palpitation or fatigue, and with no other warning than this may have the experience of fainting during a period of physical exertion, owing to lack of forward flow. The life expectancy when periods of syncope have appeared is less than one year. Unlike mitral stenosis, when these patients go into an episode of failure they are not easily brought out of it by rest and medicine —simply because it is nearly impossible to reduce the work of the left ventricle, which must, with each beat, force a volume of blood out through the tiny opening in the valve. The prognosis for a patient with aortic stenosis who goes into failure is very poor, unless, of course, some real correction of the valve opening can be made. It is an unusual patient who can be returned to gainful occupation by medical means alone after an episode of failure from aortic stenosis.

The correction of this serious situation naturally appeals to the surgeon. Our experience and that of others is that if these patients are operated on before

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Changing Concepts in the Treatment of Endometriosis

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THE literature on endometriosis being particularly voluminous, it is easily understood why some important papers on this subject have escaped attention. For instance, at about the time the very significant work of Sampson was read and published, there appeared a case report in German by Brakemann that has gone unnoticed for many years. Twenty years ago, Joe Vincent Meigs wrote an editorial on his ideas of the etiologic factors in endometriosis; the ramifications of his theory have led to important therapeutic steps in the management of endometriosis.

In 1945, Cashman published a significant series of cases on a particular type of treatment for endometriosis; the full implications of his work have too frequently escaped serious thought. Ten years ago, Karnaky brought out a medical regimen for treating endometriosis that was not taken seriously. These names: Brakemann, Meigs, Cashman and Karnaky—are brought out because, as time goes on, their work takes on an increasing significance. To better understand our current therapy used in treating endometriosis, we might reconsider for a moment what presumably is the etiology of this strange disease. In 1898, Iwanoff was the first to suggest that the endometrium-like tumors in and on pelvic peritoneum were due to metaplasia of the mesothelium or serosal layer of the uterus. This serosal theory or metaplasia factor received support from Robert Meyer in 1919, and is based on the fact that all epithelia of the female genital system are derived from the celomic epithelium of the urogenital folds, which in turn comes from the primitive peritoneum. There are many undeveloped cells of this peritoneum remaining in the adult female viscera and to these Robert Meyer ascribed certain differentiating potential which could make them the anlage of endometriosis. He believed the typical lesions developed in response to an inflammatory reaction. Later on, Novak accepted the Iwanoff-Meyer Metaplasia Theory but felt that there was an unknown endocrine factor at work which initiated late differentiation.

Meigs, in 1938, advanced the theory of etiology on which we have been able to build a conservative therapeutic plan. He noted that endometriosis was common in private patients who married late and among whom contraceptive practices were widespread. By contrast, endometriosis was a rarity in ward patients in whom marriages took place earlier and contraceptive practices were practically non-existent. He theorized that the interruption of the rhythmic ovarian changes in aberrant endometrium by repeated early pregnancies must be beneficial and, conversely, that prolonged periodic menstruation, without interruption favored the development of endometriosis. Thus, the Meigs theory supplied the "unknown endocrine factor" suggested by Novak. Recently, Roger Scott has shown with his work on the monkey that ectopic endometrium will not bleed unless it is subjected to cyclic progesterone withdrawal, using a plan of administering both estrogen and progesterone in a pattern similar to that of menstruation. This brings added proof to the original thoughts of Meigs on etiology.

Treatment

Conservatism must be uppermost in our minds while treating this disease since we are confronted with a non-neoplastic entity affecting women in the reproductive years. One should keep in mind the Meigs concept of etiology and realize that it offers a framework for a conservative therapeutic plan for endometriosis. In addition, one must remember that we have very effective treatment methods well documented in the literature that have been regarded too lightly in the past. I would call attention again to the work of Brakemann, who in 1924 did a *hysterectomy only* for the treatment of an endometriosis of the bladder. In all, we have found twelve case reports of endometriosis of the genito-urinary tract being cared for in this fashion by various German gynecologists. Surely, Cashman was unaware of Brakemann's pioneer effort when he published over

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130 case reports in which hysterectomy alone was employed for the treatment of external endometriosis.

Pregnancy.—A married patient should be advised to become pregnant when found to have endometriosis. Physiologic amenorrhea causes a regression in aberrant endometrium that is truly remarkable. In the most severe cases of endometriosis, one is hard put to palpate the lesion beyond twelve weeks of pregnancy. I have never seen a case of endometriosis that did not respond favorably to pregnancy. At full term, the cul-de-sac (and other areas previously so deeply involved) will present white, soft, puckered clusters of peritoneum. This same appearance is often noted in the pelvis of postmenopausal women.

In severe cases of endometriosis which have been quiescent during pregnancy, symptoms and palpable nodules may recur as early as the second postpartum period. A second pregnancy has proved to be most helpful in preventing a recurrence of symptoms; most women will remain symptom-free, while in a small percentage the pain may recur after varying periods of time.

Stilbestrol.—There are women with endometriosis who are infertile or in whom pregnancy is out of the question. For these we have a "pregnancy equivalent"—amenorrhea produced by progressively higher doses of stilbestrol. This treatment, which was suggested by Karnaky, although slow to catch on in this country, has great merit. The dosage table I use is a modification from Karnaky and is as follows:

Start after a menstrual period:

stilbestrol	0.5	mg.	for five days
stilbestrol	1.0	mg.	for five days
stilbestrol	2.0	mg.	for five days
stilbestrol	4.0	mg.	for five days
stilbestrol	10.0	mg.	for five days
stilbestrol	25.0	mg.	for five days

The 25 mg. dose is maintained until spotting occurs at which time an additional 25 mg. is added to the daily dose; 25 mg. more are added each time spotting or "break through" bleeding is noted. The average dose needed to maintain amenorrhea is 300 mg. a day.

Stilbestrol is abruptly stopped after nine or ten months and withdrawal bleeding may occur but has not been severe. Medically-induced amenorrhea seems to produce the same regression in endometriosis as that induced by pregnancy. It is particularly fitted to patients with marked cul-de-sac involvement. The favorable response lasts about as long as that from pregnancy.

Testosterone.—Testosterone has been employed in the treatment of endometriosis without striking success. This is due, I believe, to the low dosage which must of necessity be maintained. The masculinizing effect of testosterone is well known, as is the unpredictability of the dose producing these changes. Although most of these secondary changes are reversible, the voice change is permanent. These troublesome features leave testosterone with little place in the treatment of endometriosis.

Surgical Treatment.—Favorable response from pregnancy or stilbestrol has reduced considerably the need for surgery in endometriosis. If a young woman fails to respond to these two measures or refuses to undertake further treatment by amenorrhea, the endometrial implants should be resected and a presacral neurectomy and ovarian neurectomy performed. Extirpation of any organ for endometriosis in young women is not often necessary. This applies particularly to the ovary.

Surgical exploration must be carried out in patients with endometriosis who have bilateral or unilateral ovarian enlargement greater than 5 cm. in diameter because it is impossible to differentiate ovarian endometriosis from true neoplasms by physical examinations alone. Treatment of ovarian endometriosis is different from that of true tumors of the ovary for which cystoophorectomy is practically always necessary. Endometriomas of the ovary are dissected free from their adhesive beds and bisected at a point opposite the hilus. The cyst contents are evacuated and the cyst lining gently dissected away leaving as much normal tissue as possible. Extensive alteration in ovarian function might be suspected from the great distortion when the ovary is enlarged many times by blood-filled cysts, but when the cysts are resected there is enough normal tissue to maintain adequate function, that is, ovulation and conception. In rare instances, castration might be necessary, but should not be considered without a trial of conservative measures first.

With women in the late childbearing years or women with several children, the foregoing therapeutic steps are frequently not feasible. It was in this group that Cashman advised hysterectomy with conservation of the ovaries. This is a highly successful treatment and again, amenorrhea is produced—this time permanently. I have observed all manner of

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Acute Tubular Necrosis

Conservative Management and the Artificial Kidney in Treatment

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ACUTE renal failure is a clinical syndrome resulting when renal excretory function is rapidly lost. One of the most common causes of acute renal failure is acute tubular necrosis. It is produced by a sudden decrease in the renal circulation by such incidents as incompatible blood transfusion, intravascular hemolysis and hypotension. The clinical course is characterized by a period of oliguria followed by a recovery phase. Since this is a reversible lesion, early recognition and proper management are extremely important.

Differential Diagnosis

The first sign of impending acute renal failure is a low urine output. It is therefore imperative that accurate intake and output records be maintained on all patients who have had hypotensive episodes, incompatible blood transfusions, or exposure to chemical nephrotoxins. Once oliguria or anuria is recognized, it becomes important to determine the etiology.

Immediately Reversible Lesions.—There are several conditions, producing low urine outputs which are immediately reversible, if promptly recognized and corrected.

1. *Hypotension* must be reversed immediately or the kidneys may develop acute tubular necrosis.

2. *Salt and water depletion* may be indicated by low urine output with high specific gravity. Where this factor is a possibility a rapidly administered salt or water load, depending on the clinical circumstances, is indicated. In a dehydrated patient the administration of a 1,000 cc. of 10 per cent glucose in water in a one-hour period is a good therapeutic test. If an increased urine output is observed, it suggests that dehydration is the etiology of the oliguria.

3. *Obstructive uropathy* must be considered in patients where the following circumstances are present: (1) anuria, (2) marked daily fluctuations in urine output, (3) absence of other predisposing causes of acute renal failure, and (4) urine specific gravity of 1.018 or greater. All patients that fall into these categories should have early cystoscopy and bilateral ureteral catheterization.

When the immediately reversible causes of oliguria, have been ruled out, an organic renal lesion is undoubtedly present and the following entities must be considered: (1) the acute glomerulitides, such as acute glomerulonephritis, periarteritis nodosa, acute lupus erythematosus and hypersensitivity angiitis secondary to such drugs as the sulfonamides or penicillin, (2) acute pyelonephritis or necrotizing papillitis, (3) acute exacerbation of pre-existing renal disease, (4) lesions of the great renal vessels such as renal artery emboli or thrombosis of the renal artery or vein, (5) acute tubular necrosis or (6) bilateral cortical necrosis.

Clinical Course

The clinical course of acute tubular neorosis is characterized by two arbitrarily defined phases, the oliguric phase in which the urine output is less than 400 cc. during a twenty-four-hour period, followed by the diuretic phase in which the urine volume is above this figure. The oliguric phase may vary from several days to three weeks in duration, during which time the patient gradually develops the signs and symptoms of uremia. It is during this period that hypervolemia and hyperkalemia may develop and lead to the complications of pulmonary edema and potassium intoxication. These two complications are the most frequent causes of death during the oliguric phase.

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Gradual increases in the daily urine output characterize the diuretic phase. Despite the apparent improvement, approximately 25 per cent of the deaths in this syndrome occur during this phase. If the patient can be successfully carried through this clinical course, almost complete recovery of renal function can be expected within a six to eight-month period.

Treatment

Since the renal regulation of the composition and volume of body fluids is lacking, therapy must be directed at the control of these parameters. In addition to the renal failure these patients often have associated trauma, operative complications, or other factors that greatly complicate their management.

Water Balance.—Hypervolemia leading to pulmonary edema is a common fatal complication and is produced by overloading the patient with fluids. The usual adult loses about 0.5 cc. per kg. per hour or 700 to 800 cc. of fluid per day through the skin and lungs (insensible loss). The water of oxidation, produced by the metabolism of body fat, protein and carbohydrates, amounts to approximately 200 to 400 cc. per day and must be subtracted from the insensible loss when determining fluid balance. Therefore, the daily fluid requirement in the average adult amounts to about 400 to 500 cc. of water plus enough additional water to replace the daily urine output. If there is extra-renal fluid deficit, such as gastrointestinal loss, this must be replaced on a volume for volume basis. The composition of the replacement solution may be determined by analyzing a twenty-four-hour aliquot for sodium and chloride and replacing these electrolytes in the amount they are lost. Potassium must not be included in the replacement therapy.

The accuracy of the calculated daily fluid replacement may be checked by the observation of the clinical status of the patient and, most important, by daily weights. Since these patients are getting inadequate calories to maintain body weight they should lose approximately 0.5 kg. (about one pound) of weight per day. If they fail to do this, the patient is being overhydrated.

Caloric Requirements.—It is important that a certain amount of calories be given to these patients to minimize protein breakdown and prevent starvation ketosis. At least 100 gm. (or more, if possible) of carbohydrate should be given daily. If the patient can tolerate oral feedings the carbohydrate may be given as hard, rock candy since this is pure glucose. If intravenous feedings are necessary, the glucose may be given as a hypertonic solution. In order to give this amount of glucose in the limited fluid allowed the patient, at least a 25 per cent solution of glucose in water is required. The irritating properties of this solution make it necessary to administer it in a large-caliber vein. This is best accomplished by passing a polyethylene catheter into an upper extremity vein so the tip of the catheter lies in the subclavian vein. The solution is dripped in very slowly over a twenty-four-hour period. The catheter must be changed to another vein every five to six days to minimize phlebitis at the cut-down site.

Electrolyte Management.—1. *Potassium*: The danger of potassium intoxication makes it imperative that no potassium be given to these patients. The breakdown of body tissue releases potassium into the extracellular fluid. Since the kidney cannot excrete the potassium in acute renal failure, the plasma concentration gradually increases to toxic levels. This toxicity is manifested by its effect on cardiac muscle producing characteristic changes in the electrocardiogram. These changes are indicated by a tenting and elevation of the T waves, followed by spreading of the QRS complex loss of the P wave, and finally, the development of a sine wave and ventricular fibrillation. Since the clinical manifestations of potassium intoxication develop rather late, the best methods of following this are by daily electrocardiograms and serum potassium determinations.

The best therapy for potassium intoxication is prophylaxis. Recently, with the introduction of the cation exchange resins of the sodium and hydrogen cycle, it has been possible to keep potassium levels in the normal range in almost all patients. These resins are polymers of carboxylic acid which are saturated with sodium or hydrogen ions and have an affinity for potassium. When the resin is placed in the gastrointestinal tract, ionization takes place and potassium is picked up by the resin in exchange for a hydrogen ion.

The resin may be given orally in the dosage of 20 gm. of resin dissolved in about 70 cc. of water or rectally as a retention enema of 20 gm. of resin in 200 cc. of water. This may be given as often

as is necessary to control the plasma potassium level.

The administration of hypertonic sodium solutions or hypertonic glucose with insulin is reserved for the treatment of acute potassium intoxication to tide the patient over until the resin will become effective. In certain instances the artificial kidney may be required.

2. *Sodium*: The daily loss of sodium in this group of patients is exceedingly small. It is unnecessary to give sodium unless there is an obvious extrarenal loss. It has been shown that the hyponatremia which frequently develops is largely due to expansion of the extracellular compartment and is a dilutional hyponatremia. It is seldom necessary to treat this unless the serum sodium falls below 120 mEq. per liter. If the patient is overhydrated the hyponatremia is treated by further restriction of fluid intake and increasing the insensible loss. If there is obvious sodium loss it may be replaced as it occurs.

3. *Bicarbonate*: As the acidosis ensues, the CO_2 combining power gradually falls. Since this is a compensatory mechanism to maintain body pH, it should not be treated unless it falls below a level of 12 millimols per liter and should not be corrected over 18 millimols per liter. Overzealous bicarbonate therapy may produce sudden elevations of the serum pH, with subsequent convulsions and death.

Anemia.—The anemia of acute renal failure is due to decreased erythropoesis, decreased red blood cell survival time and hemodilution. The anemia is best followed by frequent hematocrits and should not be treated unless it falls below 20 per cent. If transfusion is necessary, the administration of fresh, packed red cells is the treatment of choice since the patient needs the red blood cells and not the added plasma volume.

Uremia.—Aluminum hydroxide gels may be given orally to bind the phosphate ion in the gastrointestinal tract and decrease the plasma phosphate level. Testosterone proprionate in a dosage of 25 mg. intramuscularly daily may be helpful in minimizing the breakdown of body tissue. If nausea and vomiting become a problem they may be controlled by the use of thorazine or sparine given intramuscularly. In those instances where the symptoms of uremia are so severe that management of the patient becomes a problem, dialysis with the artificial kidney may be necessary.

Infection.—Great care must be taken to prevent sepsis in these patients because of their decreased resistence to bacterial invasion. All persons attending the patient should wear masks and gowns and wash their hands in a germicidal solution before examining the patient, to minimize the exposure of the patient to bacteria. Once the diagnosis of acute tubular necrosis has been established and if the patient is able to void, a urethral catheter is not needed and may only serve as a portal of entry for bacteria with fatal complications. Monilial infections, stomatitis and parotitis are common in these patients. Routine mouth care in the form of frequent mouth washes and brushing of the teeth is important in minimizing these complications.

Prophylactic antibiotics are probably of no benefit and may lead to super-infection, fungus infections or other complications. If clinical infection occurs it should be treated vigorously.

Management of the Diuretic Phase.—When the urine output per twenty-four hours exceeds 400 cc., the diuretic phase is entered and the urine output characteristically increases in a stepwise manner. Once the urine output exceeds 1200 cc. per twenty-four hours, supplemental potassium may be given. As the diuresis progresses, potassium depletion can rapidly develop and must be watched for with daily serum potassium determinations.

It is seldom necessary to administer more than 2,000 cc. of fluid over a twenty-four-hour period. During the diuretic phase, the body attempts to get rid of excess fluid accumulated during the oliguric phase. An attempt to keep up with the urine output by oral intake may lead to an excessive diuresis with large losses of electrolyte in the urine. Seldom should the diuresis exceed 3,500 cc. per twenty-four hours unless excessive water intake is present.

When the patient is able to take oral feedings and the urine output is over 1500 cc. per twenty-four hours, a low protein, high caloric diet may be instituted. The azotemia may continue to increase during the first three to five days of the diuretic phase, in spite of what happens to be an excellent urine output, and will then begin to fall to normal values. It is not necessary to correct the

anemia or acid-base balance as these factors will correct themselves as renal function improves. Any infection should be vigorously treated as the patient tolerates it poorly and this may be a fatal complication.

Artificial Kidney.—To understand the principles involved in the operation of the artificial kidney, the terms ultra-filtration and dialysis must be defined. If two solutions are separated by a membrane which is permeable to solute below a certain molecular weight (semi-permeable membrane), the permeable solute will pass from the solution in which it is in higher concentration across the membrane to the solution in which it is in lower concentration until equilibruim is established; this process is known as dialysis. If these two solutions and the interposing membrane exist in a closed, rigid system, a hydrostatic force applied to the solution on one side of the membrane forces both water and solute across the membrane; this process is known as ultra-filtration. All types of artificial kidneys are dialysers and some are both dialysers and ultrafilterers. In clinical situations, cellophane is the semi-permeable membrane on one side of which is the patient's blood and on the other side is an electrolyte solution whose composition is determined by the chemical status of the patient.

In 1913, Abel utilizing these principles described the first hemodialyser. In this apparatus, blood passed through hand-made collodion tubes, which were immersed in an electrolyte solution. This dialyser was not clinically applicable since (1) the pore size of the collodion membrane was extremely variable and allowed red blood cells to pass, (2) there was not a good anticoagulant available, and (3) the principles of renal physiology which are required to understand the management of the artificial kidney were not well known.

The purification of heparin and the availability of cellophane overcame two of the major obstacles to the development of the artificial kidney. Kolff utilizing these advances, in 1944, developed the first clinically applicable artificial kidney. This consisted of a drum around which was wrapped a continuous coil of cellophane sausage casing. The drum rotates so that the cellophane sausage casing through which the blood passes, is partially immersed in an electrolyte solution. This artificial kidney performs only dialysis.

In 1946, Skeggs and Leonards developed an artificial kidney consisting of two cellophane sheets sandwiched between rubber pads, the blood running between the cellophane sheets and the dialysing fluid running between the rubber pads and cellophane sheets as shown in Figure 1. Since this system is contained within a rigid framework, it is both a hemodialyser and an ultrafilterer and thus can remove both water and solute.

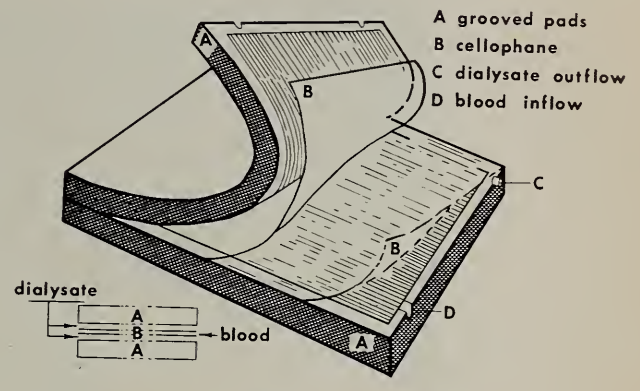

Fig. 1. Diagramatic illustration of the functional unit of the Skeggs-Leonards artificial kidney.

Recently Kolff has developed a disposable coil kidney which is also both a dialyser and ultrafilterer.

Indications for Using the Artificial Kidney.—Renal failure may be divided into two large classes, acute and chronic.

1. *Acute renal failure*: There are two major situations which should be considered as indications for the use of the artificial kidney during the course of acute renal failure: (1) potassium intoxication which cannot be controlled by the previously mentioned conservative measures and (2) severe symptoms of uremia.

2. *Chronic renal disease*: The delicate state of chemical equilibrium may be disturbed by trauma, infections, or acute exacerbation of the primary disease. The patient may be tided over this acute stress by hemodialysis with the hope that the previously existing state of equilibrium is re-established. In addition, patients with polycystic kidney disease are frequently benefited by dialysis when they first come for treatment with uremic symptoms.

3. *Non-renal indications*: Hemodialysis has also proven useful in cases of chemical intoxication such as salicylic over-dosage, bromism, barbiturate intoxication and severe non-renal metabolic acidosis.

twin-coil artificial kidneys (Fig. 3). The services of this unit are available to any physician desiring consultation or treatment of any patients with the complex problems of renal failure including hemodialysis.

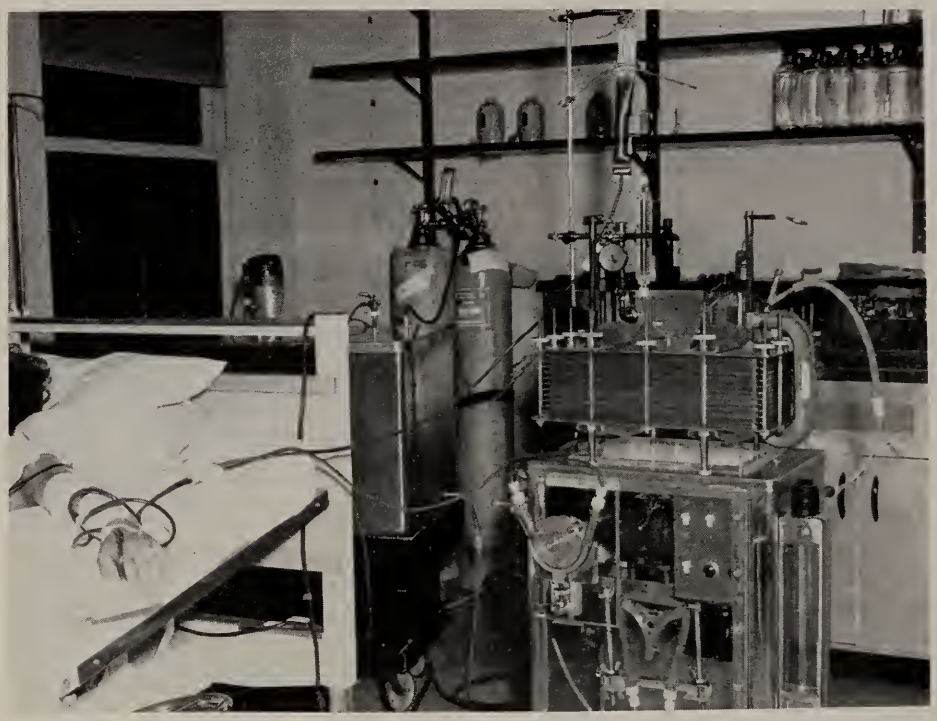

Fig. 2. The modified Skeggs-Leonards artificial kidney in use at the University Hospital, Ann Arbor.

Contraindications to the Use of the Artificial Kidney:—The chief contraindications to the use of the artificial kidney are persistent hypotension, severe bleeding, and terminal chronic renal disease.

Organization of an Artificial Kidney Unit.—The organization and operation of an artificial kidney unit is a complex problem requiring adequate laboratory facilities, especially trained technicians, and an experienced team of physicians familiar with the problems of renal insufficiency and the techniques of dialysis. This organization must be available at all times for the treatment of these patients. In addition, considerable time must be spent dialyzing experimental animals to establish and maintain a smoothly functioning unit.

With these problems in mind such a unit has been established at the University of Michigan Hospital and has been functioning over the past two years. This unit is fully equipped with both the Skeggs-Leonards (Fig. 2) and the Travenol

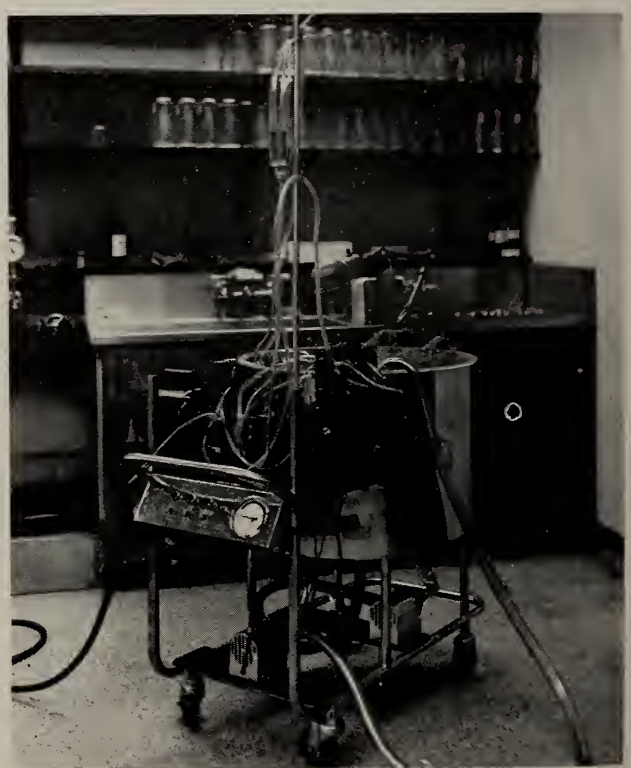

Fig. 3. The Travenol twin-coil artificial kidney.

Health Insurance and the Medical Profession

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WHEN Blue Cross was timidly established in the middle 1930's, many groups, including medical societies, insurance companies and their acturaries, freely predicted that it would fail. It was argued that there would be no need for such insurance against sickness, and the cost would be excessive. However, the demand for prepayment for medical service surprised everybody. During the past ten years, Blue Cross has mushroomed into a billion dollar giant. Its growth has been surpassed in modern times only by television and prohibition bootlegging. Today, 50 million people have Blue Cross, and 123 million Americans—over 70 per cent of the population—carry some form of hospitalization insurance.[20]

In 1939, the California Medical Association initiated the first Blue Shield plan for payment to the doctors. Michigan Medical Service was the second pioneer, starting the next year. This has had a comparable growth. At first, Blue Shield was only for surgical fees in the hospitals. However, it has broadened its benefits, and today the Michigan Blue Shield is actively pioneering in the field of much more extensive benefits. This pioneering is being accompanied by a good deal of controversy both within and without the medical profession, and charges, counter-charges, factual information, and misinformation constitute a great current open debate.

Blue Cross plans, because of the increased prices of all services and personnel, and increased benefits, have had to raise their rates. This is the subject of another controversy. In New York State, the demand for a 40 per cent raise in rates resulted in Governor Harriman requesting $100,000 to study Blue Cross: its administration, its coverage, its abuses, any related factors contributing to the high cost of hospital care; its philosophy, any needed regulation by the state, and the character of its Board of Directors. In Michigan, in 1956, after one of the rate increases, Governor Williams appointed a commission to study and investigate Blue Cross. The University of Michigan is currently studying the whole problem of prepayment insurance with a grant of $300,000. Massachusetts, Pennsylvania and other states have similarly studied and taken seriously this contemporary development in health care.[6] When coverage of this nature involves a large proportion of the population, it approaches the character of public utility. In such matters, in the public's interest, there has always been and always will be regulation by the state.

After the popularity and the principles of prepayment had been established by Blue Cross, the commercial insurance companies entered the field, selling cash indemnity policies. This is usually a lump sum payment to the patient for sickness bills which he incurred, rather than direct payment to the hospital or to the doctor. These companies have recently featured certain deductible and co-insurance clauses.* Since 1950, the sale of indemnity policies has even surpassed Blue Cross. Commercial indemnity insurance now covers 73 million people for hospital care (although total paid benefits by this type of insurance are slightly less than Blue Cross).[20]

In 1956, voluntary insurance agencies paid 2.8 billion dollars for medical services; yet this represents only 19 per cent of the total expenditures for medical care, indicating the tremendous unmet demand for additional insurance coverage.[2]

The third type of voluntary prepayment agency is the so-called "independents," many of which offer comprehensive care. In general, the service is provided by groups of doctors, many of whom are on full salary. Comprehensive care includes hospital care and medical care for most illnesses in homes, offices and hospitals. These plans cover 80 per cent of the cost of care for all illnesses, usually excluding mental illness, tuberculosis, and dental care. About 3.5 million people in the United States received their medical care under

*Deductible—The patient pays certain initial costs of care. Co-insurance—The patient pays a percentage, usually 20 to 25 per cent of all costs.

this form at the end of 1950.[22] The best-known groups are H.I.P. in New York, Permanente in California, and Group Health Association in Washington, D.C. The prediction is that more such groups will form rather rapidly.

The Plight of Hospitals.—In 1925, only 10 per cent of the cost of hospitalization was paid for by insurance of one form or another. The remainder was met by the individual from his own resources. Ten years ago, insurance paid 25 per cent of hospital cost. Today it is 60 per cent. The prediction is that by 1975, 90 per cent of all private expenditures for hospital care will be paid for by some form of prepayment insurance.[7] It follows, then, that any financial trouble that the insurance plans fall into—such as over-utilization of beds, soaring rates, cancellation of policies because of long-time unemployment—will have an immediate and sizable effect on hospital income.

If Blue Cross becomes too expensive for the average wage-earner, what will happen to the average hospital?

The Increased Public Interest in Medical Care.—In 1932, the now-famous Committee on the Costs of Medical Care made its report.[3] There were two conclusions which have become historical: (1) Medical services should be furnished largely by organized groups, preferably organized around a hospital, and (2) costs of medical care should be placed on a group payment basis. Neither of these recommendations received much acceptance at that time.

In 1938, the Report of the Inter-departmental Committee to Coordinate Health and Welfare Activities came from Washington.[12] The committee was impressed, among other things, with the findings of the National Health Survey of 1935-36 that: One-third of the population, including persons with or without income, was receiving inadequate or no medical services; the increasing part which hospitals play, year after year, in health and sickness services; and "sickness is commonly the leading cause of social and economic insecurity."

In 1947-49, the National Labor Relations Board ruled that health insurance might properly be included in fringe benefits for labor. Since then, organized labor has become increasingly vocal in demanding more complete and adequate up-to-date care for the average working man and his family. These voices represent, with their families and dependents, 40 million people. ("The largest single body of consumers or recipients of medical care who are in a position to do anything about it.")[5]

The 54th Congress on Medical Education and Licensure Meeting in Chicago, in 1958,[15] emphasized the significance of many social trends to medical practice, thus: The rapid scientific and technologic changes in medicine in recent times, the growth of specialization, urbanization, upgrading of population education-wise and in sophistication, the increasing importance of the hospital as a center for medical care in the community, the need for more effective co-ordination and utilization of medical facilities and resources, and the advantages of group practice.

The meeting in Washington in June, 1958, of the National Conference on Labor Health Services[16] emphasized again the demand for better organization of doctors and their facilities in extending the availability of complete and adequate and up-to-date medical care at a cost which employed groups can afford. They are very critical of "free choice" pronouncements of medical societies.

Finally comes the 1958 Rockefeller Brothers Fund Report,[17] recommending "group practice affiliated with a common hospital, essentially all costs prepaid, comprehensive in scope. . . . We believe that this group practice prepayment approach, although by no means suited to all communities, could be advantageously adopted by more communities. . . ."

Thus, after twenty-five years, the burden of the song is the same: Prepayment, comprehensive care, group practice.

In all of this development, one new note is being added. For the first time, the public (that is, our customers) are becoming critical about the inadequacies of medical care.

A basic question of policy is: Should prepayment plans be only collection and payment agencies, or should they have any responsibility for the adequacy of the medical care for which they pay? There is a growing feeling that prepayment agencies must assume responsibility to assure good quality of service.

"Illness and disability . . . are to an increasing extent becoming a matter of public concern," says Leonard Rosenfeld.[18] Mott states that the primary concern of any health plan should be the quality of medical care available to the subscribers.[13]

Group Practice.—A group practice may be composed of three or of 300 physicians. They may all be specialists; they may be a "diagnostic clinic," only; or more commonly, render treatment; or may dispense family care primarily by general practioners, aided by the needed specialists.

Payment may be made by the patient or by voluntary prepayment agencies, with partial or with comprehensive coverage or by combinations of these. Any metropolitan hospital partakes of the nature of a group, especially if there is a well developed residency training program and specialized staff. The general hospital has elevated the quality of medical care "by substituting organization for individualism in professional service without impairing professional individuality."[7] A hospital, by providing an office building for its staff, may start a group practice development. Other auspices may be a partnership, a non-profit organization, a university, or an industrial company (for its employes).

The milieu must be an atmosphere conducive to professional progress and harmony, and the patient must not be lost sight of "as a person." Granting this, doctors working together supplement one another's knowledge.† Consultation and referrals are simplified, for there is proximity and no money barrier. Experience, auxiliary staff and services, all facilities and other overhead items are more easily pooled, thereby service is rendered at less cost. The professional life may be more rewarding; provision can be made for staff review, research, study leave, retirement, and other perquisites.[5,21]

The growth of group practice *per se* has become more rapid since World War II. In 1951, there were 600 groups containing an estimated 6000 physicians. A current (August, 1958) estimate is 1000 groups with close to 9000 physicians.[4] Many leaders in American Medicine have played a significant role in developing the concept of group practice. The Mayos, Crile, Lahey, Ochsner, are merely names which are the best known. The advantages of group practice are becoming increasingly evident, not only to students of public health and medical economists, but to doctors both in and out of such groups.† A recent survey of group practices revealed that the motivation to join a group is frequently the opportunity to practice better medicine.[21] Many doctors in independent private practice will admit privately that there are many advantages to a group practice, even though they themselves would not want to join one.

Free Choice.—Naturally, in group practice there is not the free choice of every doctor's doorbell. There is the so-called "dual choice"; either the group or the individually practicing physician. However, there is a body of responsible opinion which maintains that the ancient and honored concept of "free choice of physicians" increases costs and is not appropriate to changes that are taking place in medicine and in the community, at large. George Baehr[1] said that laws guaranteeing everyone who has a medical license the right to practice medicine, surgery, and midwifery are not really in keeping with our present-day practices. Donald Munro[14] similarly has commented that free choice of physicians does not guarantee the best, or even adequate medical care. Munro urged an educational effort on the part of the New England Surgical Society to acquaint the public with such deficiencies, with the rights of the public for adequate care, and with the professional responsibilities to deliver that care.

Cruikshank[5] described the situation in medicine as comparable to the adjustment all must make from the simple agrarian society of fifty years ago to the complicated urban and industrial life today. The craftsman in the former era was responsible for making the entire product—for example, one entire wheel, of which he was justly proud. The mechanic of today is responsible for one small part in a large-scale organization. The doctor is caught in the same maelstrom. Cruikshank further states that solo practice, fee-for-service are of these older values and "the problem is how to develop arrangements under which the personal and social values that were associated with it can be preserved in the practice of modern Twentieth Century medicine." Baehr said practically the same thing: "Organization is an essential feature of American Industry, of Labor, and today, of modern medical services. The public needs to learn this truth."[1]

Studies by H.I.P. in New York have shown that when medical service was rendered by their groups,

†A recent item in the *Wall Street Journal* (June 30, 1958) commented on the increasing difficulties doctors are encountering in keeping abreast of 400 new drugs each year, digesting 6000 medical journals. "One group clinic assigned one of their members to read all of the drug advertising material which came to them. His loss was estimated at $50 per week for this time, 'but it was worth it.' "

annual hospital admissions per 1000 population were 18 per cent less than for Blue Shield subscribers and hospitalization days were much less (fifty-eight instead of sixty-eight days per 100 population per year.)[8] Also, perinatal mortality (defined as deaths between the twentieth week of gestation to one week after birth) was 30 per cent less than for comparable private patient deliveries in New York City.[19]

The United Mine Workers found that when they finally limited choice of physicians, their costs decreased, and the relative efficiency of medical care increased.[9]

Naturally, such trends towards abandonment of free choice have caused a reaction among segments of the medical profession, and in some places legal battles have developed. In Colorado, the State Medical Society had a bill introduced which would make it illegal to practice in a panel, defining a panel as a "list less than the total number of licensed physicians." Similar legislation was introduced in the Kentucky legislature. Both of these proposals failed to become law. The courts have held that such disciplinary measures are in restraint of trade, and violate the Sherman Anti-Trust laws exactly as a business combination might do. While the courts have ruled against corporate practice of medicine in which the services of hired doctors are sold for a profit, no court has applied the "Corporate Practice Rule" against a non-profit consumer-sponsored prepayment medical service corporation.[11]*

Comments

It behooves us to take a mature and historic viewpoint of these matters which, at the present time, are being subjected to debates in almost every county medical society, of articles in any magazine one may pick up, of reports in the daily papers, and of serious studies in specialized technical journals.

Fifty years ago, the family doctor was able to give his patients all the care which was available at that time. The customer (again the prepayment customer of the future) is now lost in a maze of more than twenty specialists among whom he must often make his own selection. Some of these organizations buying medical services, with the large amounts of money involved, are critically surveying what they are getting for their money. Public health authorities, sociologists, students of economics are doing the same thing. They are studying the abuses of insurance. Some studies have shown that appendectomies have increased when there is Blue Cross or indemnity insurance coverage. There is growing evidence that there is unnecessary hospitalization under existing forms of medical practice.

There is no agreement today as to whether the purpose of voluntary health insurance is an anti-state medicine plan, a system of payment for certain costs of medical care, or a public health measure designed to provide comprehensive service.

Our thinking today must include all varieties of service available to the total community.† The adequacy of medical care will be critically surveyed by groups which heretofore have been considered our customers. We have dealt with them kindly, but our authority in the past was unquestioned. In the future we may have to deal with them as partners. Many studies indicate that the American public wants more complete coverage for illness and health care than the present plans afford.[10] They want to budget for illness as they do for their electric light or their rent. They want to write but one check each month, which would pay for hospital, ambulant care, diagnostic care, house calls, care for the chronically ill, care by specialists, by nurses, by dentists—all of the most modern up-to-date type. The psychology of prepayment of sickness bills will have to shift. The well person is not psychologically disturbed, anxious, in pain. He is not presented with a big doctor's or hospital bill which he did not foresee.[7] Well people, paying by the year, can make up their minds cooly, can be critical, can buy or bargain in large groups such as unions, church, farm social groups, civic or political bodies. These groups can evaluate what they are paying for and can obtain competent advice in doing so.

*The AMA, at the recent meeting in Atlantic City, attempted to redefine "free choice." "Those who receive medical care benefits as a result of collective bargaining should have the widest possible choice from among medical care plans for the provision of such care. . . . Each individual should be accorded the privilege to select and change his physician at will or select his preferred system of medical care, and the AMA vigorously supports the right of the individual to choose between these alternatives."

(Revised recommendation of the AMA Commission on Medical Care Plans approved by the House of Delegates, June 10, 1959.)

†A number of cities have instituted plans which the medical profession as well as the public should watch carefully and critically and objectively. Windsor Ontario Medical Service; H.I.P. in New York City; Group Health Co-operative of Puget Sound, are examples.

Whether we like it or not, 40 million customers may be demanding group practice from us or from the oncoming generation of physicians.

Rather than defend "free choice of physician" to the ultimate, shouldn't we re-examine the entire concept of free choice before getting into a fixed position?

Conclusions

As a profession, we must recognize the following:

1. Vast social changes are taking place in our economy directly under our vision.

2. The kaleidoscopic advances in medicine, the impact and development of present-day specialization, the need for adequate care for all, present us with problems which the profession must share with the public at large.

3. All estimates indicate that there will be increasing demands for medical service, and there will be an increasing shortage of physicians. Medical care is highly prized. Whether total coverage on a community basis comes into vogue, or even if it does not, doctors and all those in medicine will always be relatively well paid.

4. Increasingly, our public wants nothing but the best. There will be increasing public concern and appraisal of the adequacy of medical care. The total costs of medical care must be reasonable. The economies in hospital utilization, diagnostic skills, group practice will be critically studied.

5. We must bear in mind that today, only about 20 per cent of the costs of illness is covered by insurance. Many feel that the extended Blue Cross coverage is adequate, yet benefits are increasing. Cash indemnity insurance proponents state that their coverage is more adequate because it is more flexible, and it may be sold more cheaply. Yet, are these adequate?

6. Our public, our customers, will increasingly be participants. They will not be sick and anxious people who function as an individual or family unit and cannot be bargainers about rates and charges. The public in the future may not allow the medical profession to decide these matters alone. The number of people and size of the organizations interested in better medical care who are not doctors may assure this.

7. It is in our interests, as well as in the interests of the community, that we as physicians familiarize ourselves with the various issues, identify the interests of the medical profession with those of the community, encourage and be prepared to examine any and all experiments in this field objectively.

There is more and more public criticism of the inflexible attitude of the medical profession. After the recent annual meeting in San Francisco of the American Medical Association, the *San Francisco Chronicle* (June 30, 1958) commented editorially that

> . . . The social viewpoint revealed by the AMA delegates was old-fashioned, stuffy, foundered under cliches. . . . In their resolutions on public affairs, the doctors fell miles behind other scientific professions. . . . The delegates seemed to be lobbying for the status-quo-ante-McKinley.

Out of these crosscurrents, conflicting views, and arguments, which are the present climate in the year 1958, will come an expanding body of experience upon which future change and better service will be based. These developments in public health, medical care plans, social welfare—call it what you will—are as vital and important as any scientific advancement in medicine. No thinking person will lightly dismiss these ideas and plans with a label of "socialized medicine," communism, or government control of the practice of medicine.

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CHANGING CONCEPTS IN THE TREATMENT OF ENDOMETRIOSIS

(Continued from Page 105)

endometriosis lesions left behind at hysterectomy (from bowel endometriomata to ovarian endometrial cysts) and these lesions atrophy with the ovaries left in place and functioning. Again, adapting the Meigs viewpoint, hysterectomy has deprived the endometrium of rhythmic changes. Significantly, Brakemann in 1924, performed a hysterectomy for an endometriosis of the bladder which required no further treatment. We have cured a case of endometriosis of the ureter by hysterectomy. It is readily seen that pregnancy, estrogen-induced "pregnancy equivalent," and hysterectomy have one thing in common: there is no cyclic withdrawal of progesterone. Although it is true that ovulation may occur after hysterectomy, certainly it is not regular and cyclic. The result is that aberrant endometrium doesn't proliferate and grow, but rather atrophies and becomes clinically insignificant.

X-ray Therapy.—The therapeutic recommendations —both medical and surgical—as outlined, are conservative and highly successful. However, as with any medical or surgical procedure, there are going to be some failures in attaining a desired result. For example, a rectosigmoid endometrioma might not respond to hysterectomy, or a pregnancy might not improve a cul-de-sac endometriosis. If this happens, and the patient is truly miserable with the disease, the patient may be castrated by irradiation. X-ray to the pelvis in a depth dose of 800 tissue roentgens will eliminate ovarian function thereby removing the stimulus to the aberrant endometrium. Knowing that we always have the radical plan of castration available, we apply the conservative measures with confidence. The need to castrate either by surgery or irradiation is *rare.*

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Abruptio Placentae

A Survey of 131 Consecutive Cases

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A SURVEY was conducted of all placental abruptions occurring in a five-year period (1953 to 1957) in a private 200 bed hospital. During this period there were 11,957 deliveries with 131 abruptions, an incidence of 1.09 per cent. This study included all cases of placental separation occurring between the twentieth week of pregnancy and the birth of the infant, as defined by Eastman.

Fetal mortality rate is dependent on a multitude of factors, the most important of which are: (1) severity of abruption, (2) delay in institution of therapy, (3) associated prematurity of the infant (which is commonly found), and (4) congenital defects.

Maternal mortality was formerly high, but improved methods of management have generally reduced it to 1 per cent or less. In this study there were no maternal deaths.

In general, the management of these patients was conducted by a conservative group of obstetricians and gynecologists. However, fetal distress was considered an indication for Cesarean section if the prognosis for vaginal delivery was not good. In this series, twenty-two Cesarean sections were performed for an incidence of 16.8 per cent (one was a repeat section). One classical section was performed, the remainder being low cervical sections. This is considerably higher than the incidence reported by Hester and Salley[4] of 3 per cent, but considerably less than Eastman's incidence of 37.7 per cent. Townsend[5] reported doing only eight sections in a group of 588 abruptions in Australia.

Hester and Salley[4] report a perinatal mortality of 68 per cent. Eastman[2] states the usual incidence will range between 30 and 60 per cent, depending on the definition of abruption used. Our incidence of perinatal mortality was 29 per cent. In this series there were twenty-three stillbirths and fifteen neonatal deaths. Of the fifteen neonatal deaths there were fourteen prematures, eight of whom weighed less than 2 pounds. The mortality figures include one stillborn with craniorhachischisis and one neonatal death with acrania.

Of these 131 patients only four had an associated maternal morbidity, while fifty required transfusions ranging from 1 to 7 pints. Two patients defibrinogenated in this series. After receiving multiple transfusions, Cesarean section was eventually performed with delivery of stillborn infants. One was a 20-year-old primiparous patient at 34 weeks gestation who developed a Couvelaire uterus and later a lower nephron syndrome (after receiving seven units of blood). The other, a gravida two, para one, developed a similar picture at thirty-two weeks gestation, received 6 units of blood and likewise had a Couvelaire uterus. Neither of these patients required hysterectomy. At the time of writing this paper, the second patient was in the hospital for a repeat section which resulted in the delivery of a healthy infant.

Greenhill[3] quotes figures for associated toxemia ranging from 42 to 69 per cent. It is of interest to note that in this study there were only five patients with an associated diagnosis of toxemia for an incidence of 3.8 per cent. There were no cases of eclampsia in this series. There were two sets of twins, one set delivered vaginally and the other by Cesarean section. Both sets survived.

In general the management of abruption at this hospital is as follows:

1. Typing and cross-matching of patient.
2. Replacement of blood loss.

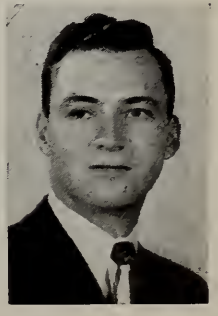

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TABLE I. ANALYSIS OF ABRUPTIONS BY YEAR

	1953	1954	1955	1956	1957	Total
Total abruptions	25	30	20	29	27	131
Private	22	25	16	28	24	115
Staff	3	5	4	1	3	16
Vaginal deliveries	22 (88%)	28 (93.3%)	13 (65%)	26 (89%)	20 (74%)	109
Cesarean sections	3 (12%)	2 (6.6%)	7 (35%)	3 (11%)	7 (26%)	22
Liveborn	21 (80.7%)*	27 (90%)	17 (85%)	23 (76.6%)*	22 (81%)	110
Stillborn	5 (19.3%)	3 (10%)	3 (15%)	7 (23.3%)	5 (19%)	23
Neonatal deaths	2**	4†	2‡	3§	4°	15
Total perinatal mortality	7	7	5	10	9	38
Corrected death rate	26%	23.3%	25%	34%	33.3%	29%
Fetal loss from C-section	1	1	1	1	3	7
Fetal loss—vaginal delivery	6	6	4	9	6	31
Total deliveries	2416	2439	2249	2486	2367	11,957
Total liveborn	2395	2419	2262	2476	2327	11,879
Total stillborn	33	26	27	46	43	175
Incidence of abruption	1.03%	1.23%	0.88%	1.16%	1.14%	(Av.) 1.09%
Incidence of stillborns from abruptions	15.1%	11.5%	11.1%	15.2%	11.6%	(Av.) 12.9%

*—One set twins.
**—Both weighed less than 2 lbs.
†—All weighed less than 4 lbs.
‡—Both weighed less than 4 lbs.; 1 with acrania.
§—Two weighed less than 2 lbs.
°—Three weighed less than 4 lbs.

3. Serial fibrinogen levels.

4. Artificial rupture of membranes.

5. Judicious use of I.V. Pitocin drip in selected patients.

6. Cesarean section for fetal indications when delivery from below is not possible, or for uncontrolled hemorrhage.

7. Antibiotics and general supportive measures.

Fibrinogen is available, but has not been used at this institution in the management of abruptions for reasons which will not be discussed at this time.

TABLE II. STATISTICAL SUMMARY, 1953 TO 1957

Total live births	11,879
Total births and stillbirths	12,054
Neonatal deaths	147
Total stillborn	175
Total abruptions	131
Total patients delivered	11,957
Incidence of abruption	1.09%
Total fetal loss	38
Stillborn	23
Neonatal death	15*
Total perinatal mortality	29%
Maternal mortality	0
Incidence of Cesarean section	16.8%
Death from congenital anomalies	2

*Fourteen prematures, 8 weighing less than 2 lbs.

Summary

One hundred and thirty-one consecutive cases of abruptio placentae in a private hospital are presented. The total fetal loss in this series was 29 per cent and the Cesarean section rate was 16.8 per cent.

The indications for Cesarean section were fetal distress with vaginal delivery not possible, uncontrolled hemorrhage and previous section. There were no maternal deaths in this series.

Staff patients included in the above series are unwed mothers from the Florence Crittenton Home and constitute a normal socio-economic cross section of the population. The attending staff, whose patients constitute the majority of our cases in this series, serve as consultants on all staff patients, so that there is no difference in the general treatment of all patients in this study.

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HOW CHRONIC IS PULMONARY TUBERCULOSIS IN THE ELDERLY?

It has generally been thought that tuberculosis in older people is a very chronic disease, and that a complete x-ray survey of the elderly would be virtually sufficient to root out most of the disease in this group. Dr. Smith's study of pulmonary tuberculosis in people over fifty-five has shown that it is not uncommon for people in this age group to develop the disease in the same manner as a primary tuberculous lesion. He cited several instances where the older person contracted the disease as a result of infection from a younger member of the household.—James Smith, M.B., *British Medical Journal,* June 6, 1959.

Wayne State University

Eighth Annual Symposium on Blood—January 16 and 17, 1959

PROCUREMENT, PROCESSING AND ADMINISTRATION OF HUMAN BONE MARROW FOR ATTEMPTS AT TRANSPLANTATION

Evalyn Repplinger, Farid Haurani, Alberto Cristofanini, Earl R. Long, and Leandro M. Tocantins
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During the past few years much work has been done in bone marrow transplantation in animals. Earlier it was shown that animals can be protected against total body irradiation by injections of suitable marrow material. Subsequently it was found that murine leukemia could be controlled when the leukemic animals received total body irradiation followed by infusion of homologous marrow.

These experimental results in animals stimulated us to try and influence the course of acute leukemia and aplastic anemia in man. Bone marrow suspensions were prepared from excised ribs of healthy donors. A total of 2 to 18 billion marrow cells have been infused at one time without any immediate or remote reactions. Patients with aplastic anemia received no radiation, while those with acute leukemia received total body irradiation from 40-600 r. Both groups received steroids and other supportive therapy. One patient with acute leukemia received large doses of antimetabolites without x-ray treatment.

On the whole, the results were poor and there was no evidence of "take" of the infused bone marrow. However, there were some temporary improvements and, in one patient, there was a remission of seven months. The complications of total body irradiation as such, demand a great deal of attention and renders this mode of therapy a difficult one to handle.

This Symposium on Blood is being published also in *Thrombosis et Diathesis Haemorrhagica.*

CHAIRMAN
Walter H. Seegers, M.D.

SOME BLEEDING DISORDERS RELATED TO PLATELET FACTOR 3

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A basic pattern in coagulation has been observed in bleeding disorders where platelet factor 3 is involved. In the thrombocytopenic state, 50,000 mm.^{3} platelets or less, a poor prothrombin consumption time is observed in the absence of residual prothrombin in the serum. The short prothrombin consumption time is due to the formation, perhaps from prothrombin, of a platelet prothrombin-like factor, which is certainly similar chemically to prothrombin. This same pattern is present when platelet factor 3 is unavailable for blood clotting in congenital thrombocytopathy and the acquired thrombocytopathy of uremia, even though platelet numbers are normal. The defect in platelet factor 3 in each of these bleeding problems is vastly different both physiologically and morphologically in the face of this similar pattern. The authors believe this pattern is characteristic of all platelet factor 3 abnormalities.

EXPERIMENTAL STUDIES WITH 5-HYDROXYTRYPTAMINE (SEROTONIN) AS A HEMOSTYPTIC AGENT FOLLOWING TRAUMATIC INJURY AFTER IRRADIATION IN WHITE RATS

Charles E. Brambel and David Murphy
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A decrease in the volume of blood lost as a consequence of traumatic injury during experimentally induced thrombocytopenic states (irradiation and antiplatelet serum) has been observed following intraperitoneal injections of 5-hydroxytryptamine. The procedure described by the authors (*Circulation Research* 6:456, 1958) was used to study blood loss in rats following lethal total body irradiation and in non-irradiated control rats.

The non-irradiated control rats bled a mean of 4.0 ml. Decreased bleeding was observed in the irradiated rats during the first four days after exposure to the effects of ionizing rays. The radiation injured animals bled one-half as much as the corresponding non-

irradiated controls. The classical bleeding syndrome associated with radiation sickness was observed on the seventh, eighth and ninth days post-irradiation, during which time the radiation injured rats lost a greater volume of blood when compared to non-irradiated control animals. This enhanced bleeding coincided with the drastic depletion of blood platelets in the peripheral blood.

5-HT in a dosage of 3 mg./kg. was found to be highly effective in controlling bleeding from traumatic injury following total body irradiation. For the first five days after irradiation, the response elicited by this compound in the irradiated rat was indistinguishable from the corresponding effect in the control animal, that is, 0.1 ml. blood. It may be of some interest to note that a diminished response to 5-HT was observed during the time of maximum thrombocytopenia suggesting that circulating blood platelets are essential in this interaction. Other amines (epinephrine and norepinephrine) associated with platelets did not decrease blood volume loss.

A decrease in mortality rate from hemorrhage associated with traumatic injury in post-irradiation states was observed after parenteral administration of 5-HT. All of the irradiated rats died as the result of the bleeding procedure which were bled on the days of maximum platelet deletion that did not receive 5-HT.

PURIFICATION AND IDENTIFICATION OF PHOSPHOLIPIDES, WITH PROCOAGULANT ACTIVITY FROM BRAIN, PLATELETS AND SOYBEAN

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The term *procoagulant* is used for a phospholipide preparation which on interaction with certain clotting factors yields a prothrombin activator.

Utilizing fractional precipitation with organic solvents, countercurrent distribution and column chromatography, phosphatidyl serine and lecithin were obtained in chromatographically pure form from beef brain tissue. Measurements of the procoagulant activities of these phosphatides by determining their influence on the recalcification time and on the formation of thrombokinase in the thromboplastin generation test revealed that phosphatidyl serine or lecithin alone had only little or no procoagulant activity. However, when these phosphatides were allowed to react together in a chloroform solution, the reaction product, obtained after evaporation of the chloroform, was found to exert a very pronounced procoagulant activity.

Employing methods similar to those used in the study on brain tissue, comparatively pure preparations of the following phospholipides were obtained from beef platelets: phosphatidyl ethanolamine, phosphatidyl serine, lecithin and sphingomylin. The phosphatidyl serine content of bovine platelets seems to be relatively small. None of the four phospholipide preparations exhibited any appreciable procoagulant activity when tested alone. However, mixtures of phosphatidyl serine with either lecithin or sphingomylin or of phosphatidyl ethanolamine with either lecithin or sphingomylin showed pronounced procoagulant activity.

Apparently the procoagulant activity of soybean phosphatide fractions can be attributed mainly to phosphatidyl ethanolamine, since thus far no evidence for the presence of phosphatidyl serine has been obtained. Again it was found that the phosphatidyl ethanolamine alone showed no procoagulant activity, but following mixing with lecithin, procoagulant activity was generated.

These findings support the supposition that the presence of certain "procoagulant-active" phospholipides in the diet may conceivably contribute to hypercoagulability of blood and consequently to the development of atherosclerosis and possible coronary occlusion.

PROPERTIES OF ANTI-PLASMA-THROMBOPLASTIN

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In continuation of former studies by E. Deutsch and H. Fuchs (VI Conf. Europ. Soc. Haemat., Copenhagen, 1957) we investigated the physical and chemical properties and the working mechanism of the anti-plasmathromboplastin. We found in the normal human serum two substances with anti-thromboplastic properties. Both migrate in the electrophoresis with the alpha-globulin fractions. We were able to separate these substances by different fractionations, such as ammonium sulfate fractionation, ethanol fractionation and changing the pH. They differ from each other in their heating stability, their storage stability, their adsorption on cation exchange resins, their dialysis properties, their curve of inactivation, and in their effect on dilution. Both need no calcium in the incubation mixture and their action seems to be stoechiometric.

INTRACELLULAR DISTRIBUTION OF PROTHROMBIN REGENERATING CAPACITY

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That mitochondrial preparations have the ability to regenerate prothrombin activity from several different "inactive" prothrombin derivatives has been established. The major objective of the present study was to discover if the observed regenerating activity was limited to mitochondria or was distributed among other cellular fractions as well.

Cellular fractions of rat liver were prepared following the techniques of Schneider and Hageboom and adjusted to a 10 per cent solution with 0.25 M sucrose. Sub-fractions of mitochondria were obtained according to de Duve and associates. The substrate for the regeneration system was an "inactive" prothrombin derivative prepared with the use of liver mitochondria. For each cellular fraction conditions for maximal regeneration of prothrombin activity were determined. The regenerative capacity was not lost during prolonged freezing. Thrombin could not be detected as a by-product in either the inactivation or regeneration phase.

Measurements of specific activity (units of regenerated prothrombin/min./mg. protein) for each cell fraction were made to determine the intracellular distribution of the capacity to regenerate prothrombin at pH 7.8. This ability was concentrated within microsomes and light mitochondria. Microsomes were found to have four to five times and light mitochondria two to three times the capacity of either the total hemogenate or cytoplasmic extract.

Enhancement or inhibition of the regeneration reaction occurred when the cellular fractions were recombined in various ways. Augmentation of individual yields occurred when particulate fractions were combined in sub-optimal concentrations. However, the supernatant (soluble fraction) inhibited the regenerating capacity of the particulate fractions singly or combined.

Studies were also made with cellular fractions from the kidney, spleen and heart of the rat, as well as from organs of the rabbit. Cellular fractions from the liver and kidney were most active in the regeneration of prothrombin, but fractions from all organs exhibited some ability. Concentration of this capacity in the microsomes was clearly demonstrated.

STUDIES OF THE EFFECT OF THOROTRAST ON BLOOD COAGULATION

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Prolongation of the venous blood clotting time after the injection of Thorotrast (thorium dioxide in 25 per cent dextrin) with 3.8 per cent sodium citrate has been observed in patients receiving the drug intra-arterially for cerebral angiography. A similar effect was observed in rabbits and dogs. The prolongation of the clotting time of whole blood and recalcified plasma appeared fifteen minutes after injection and persisted several hours. The platelet count of the patient was unaffected but the plasma prothrombin time was increased. Thromboplastin generation was also markedly decreased. Addition of protamine to the whole blood or plasma *in vitro* corrected the defect in clotting times. Allowing the blood or plasma to stand several hours before testing resulted in the gradual loss of hypocoagulability and ended in hypercoagulability. The *in vivo* studies suggest the release of an endogenous heparinoid substance as the cause of the coagulation defect. The injection of citrate alone into dogs did not produce a change in coagulation. *In vitro* the addition of Thorotrast in high concentrations to whole blood resulted in lengthened clotting times but was ineffective when added to plasma.

THE PSYCHOLOGY OF SCIENCE

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> "There are more false facts current in the world than false theories."
>
> Cullen
>
> "You can have neither a greater nor a less dominion than that over yourself."
>
> Leonardo da Vinci

By "psychology" I mean: my study of my mind's existence itself. By "science" I mean: my mind's self-activity systematically directed towards developing my potential manpower.

Every "system of scientific procedure" is an outgrowth of a "system of psychology," quite as every system of psychology is an outgrowth of life's "human system." An educator who appreciates the basic fact that his psychological orientation decides his educational orientation, finds it necessary to do some research upon the order of his mind. Regularly he discovers that he has obscured, almost to the vanishing point, these mind strengthening truths: (1) all of his "facts of life" are nothing but evidence of the *fact of his life*; (2) all of his scientific data are nothing but his own self data; (3) all of his research (learning) experience is nothing but his own self-activity furthering his own self-development; (4) all of his refinement of himself as a scientific instrument (means), has been at the expense of his appreciation of himself as an *end*; (5) all that *can* reveal his life as worth living, *is* the realization that it is his own; (6) all that *can* support disesteem for his life is his

(piling up) disregard for his experience as entirely self-experience; (7) all of the health benefit of his scientific effort is safeguarded, if he steadily heeds it as augmenting his (ever-increasing) estimate of his own worth; (8) all humanization of science (the countervailing force now needed to prevent scientific suicide) can derive only from the scientist's cultivating the self-insight enabling him to call his scientific soul his own; (9) all educational programs are decided ultimately by what the educator has been able to achieve of the insight: My mind consciousness decides the limits of my educational perspectives; (10) all that *can* be of any importance to anyone is himself, hence the advantage of growing to see one's world as one's own.

All knowledge obtained by careful inquiry, study and other experience, all systematized knowledge, all observation and classification of facts, all critical exhaustive investigation and experimentation, all principles and practices of exact scientific research—as well as whatever else is lived in the name of Science, needs must be lived in the name of the given scientist, for that scientist's healthy mental development to obtain.

I find psychotherapy (the process of appreciated self-discovery essential for wholesome self-esteem) to be the specific antidote for scientific training (and for all formal and informal education) based upon disregard for the inviolability of human individuality.

The urgent and constant health need of the scientist is to identify correctly all of his findings as "the business of living" his personal life. Laboratory work, experimental projects, scientific discoveries—all are wholesomely lived only as recognized and *appreciated* developments of *his* scientifically disciplined life. The scientist's discovery of the vastness of his world must spell out for him his own littleness, each of his scientific developments must dwarf his own recognition of his magnanimity, unless he develops the habit of mind of noticing that all of his life's experience (including his scientific research) consists of his self-knowledge and thus enhances his own worth.

Systematically observing myself as a fount of creative power, methodically studying my human being as a growing life which is everyday in the making, crediting myself with the realization that I have a truly marvelous mind which works scientific wonders for me—all such getting to work of this special part of my mind, this highest helpfulness which I call "self-consciousness," is a life-saving kind of accounting. It is this sense of selfness which puts value on life. And my possession of my life is my one and only true possession, my any other claim of property being a true illusion. "Anti" self-culture scientist, is contradiction in terms.

As Ruskin recorded, "there is no wealth but life." My only discovery worthy of the name is a growth of my mind, a new mental development. I can be sure of my ground really if I can recognize it as mind, otherwise not. My scientific research prospers when I can put to work the certainty of my conscious oneness of *my* world.

It is all which I cannot see as going on *within me*, which suffers me to live any of my scientific work as if it were not personally human. It is my scientific discipline which I can see as my inner workings, which commits me to a kind peaceful search for the attainment of human well-being, to a careful and caring observance of every law that concerns the furtherance of life.

My whole wisdom of life consists in my proper appreciation of LIFE as being that power which alone can make anything possible for me. What gives my presence of mind, my momentary self-awareness, an estimate of genuine solid worth, is my regard for myself as a growing life, as a developing human being, as a treasure of my self's experience. What every scientific meaning is in terms of my own mind's creating it—therein is its only truth (reality, scientific validity) to be found. The highest reach of human science is the clear scientific recognition of the scientist's psychological world. Otherwise must obtain the definition of the scientist as: one who knows more and more (of illusional externality) about less and less (of his own human development). "Learned ignorance," the consciousness of his ever-expanding room for his further human development, is the self-conscious scientist's reward for "hanging on" to his scientific self, for feeling equal to himself.

> "Read not to contradict and confute, nor to believe and take for granted—but to weigh and consider."
>
> FRANCIS BACON, 1620
> *Novum Organum*
>
> "Man one harmonious soul of many a soul
> Whose nature is its own divine control."
>
> SHELLEY

OBSERVATIONS ON INTRAVASCULAR CLOTS

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Laki and Lorand (*Nature*, 166:694, 1950; *Science*, 108:280, 1948) observed that clots formed by the recalcification of plasma were insoluble in 5M urea, whereas clots formed by the conversion of purified fibrinogen with purified thrombin were soluble in 5M urea. In evaluating clots formed by the action of purified *Staphylococcus coagulase* on purified fibrinogen or plasma, it was found that such clots were

soluble in 5M urea. In view of the fact that clots from shed blood were insoluble it seems desirable to study the denaturation characteristics of fibrin clots from autopsy material.

Postmortem clots (chicken fat and red jelly clots) were uniformly soluble in the urea solutions. Evaluation of eleven cases of antemortem thrombosis in which three mural thrombi of the heart, one of the vena cava, one of the renal artery and six from the pulmonary veins were all partially soluble in 5M urea. The degree of solubility varied with the age of the clots and consequent degree of organization. Clots less than four days of age varied in solubility from 80 to 90 per cent.

Histologic observation of residues of clots after incubation in urea revealed cellular elements and small amounts of fibrin. One clot from a case of a ruptured liver following needle biopsy was evaluated for its solubility in 5M urea. This clot was not soluble in urea. In view of the fact that fibrin clots formed in the vessels and those formed outside the vessels have different chemical properties, that is, degree of solubility in 5M urea, it is reasonable to assume that they may have been formed by different mechanisms.

THE NON-ENZYMATIC INDUCTION OF FIBRINOLYSIS

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The *in vivo* induction of mild degrees of fibrinolysis by non-enzymatic substances has been reported for several compounds with vasomotor activity. The intravenous administration of nicotinic acid in man has recently been found to result in fibrinolysis. (*Proc. Soc. Exper. Biol.*, 98:755, 1958). The phenomenon was not found to occur in dog, rabbit, rat, or guinea pig, nor does it result from the *in vitro* addition of nicotinic acid to human plasma. In spite of clear evidence of absorption in man, oral nicotinic acid fails to induce fibrinolysis. Only in one patient, a cirrhotic with a portocaval shunt, did oral nicotinic acid induce lysis, suggesting that initial circulation of all the administered nicotinic acid through the liver is incompatible with fibrinolysis activation. After single doses of nicotinic acid, oral or parenteral, the subject will not respond with lysis to subsequent parenteral doses for several hours or days. Continuous oral medication is followed by prolonged periods (weeks or months) of resistance to the usual lysis pattern of subsequently administered intravenous nicotinic acid.

Other flush producing and vasomotor drugs studied all failed to cause the clear fibrinolysis seen by "thrombelastograph" and test tube observation of plasma specimens after parenteral nicotinic acid. Nicotinamide also does not induce lysis, but does altar the usual lytic response of subsequent parenteral doses of nicotinic acid.

Removal of the clot of a post-nicotinic acid lytic specimen from its serum does not prevent its lysis, presumably because of adsorbed fibrinolysin. Normal clots added to the residual serum are less likely to dissolve than the native clot, although lysis of the normal clot has been clearly observed in some instances. Problems related to clinical application as well as theoretical explanation of the observed phenomena will be discussed.

UROKINASE STUDIES

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Human urokinase is readily prepared by adsorption on porcelain. Pooled urine is filtered through a Coors filtering cylinder (porosity one). It is washed back first with water, eluting urine 'thromboplastin,' and then with 1/20 volume 1 M KSCN, eluting urokinase. The KSCN-solution is cleared by centrifugation, concentrated to 1/10 by evaporation with simultaneous dialysis, and finally lyophilized after further dialysis against distilled water. The yield of urokinase is 12-24 units (4-6 mg) per 1000 ml. urine. 1 ml. of pooled urine contains 0.025-0.05 units of urokinase. In this laboratory, one unit of human urokinase is defined as the amount, added before clotting, which is required to induce dissolution of one ml. of thrombin-clotted human ACD-plasma within 30 minutes at 37°C. Human urokinase incubated with human citrated plasma produces a progressive prolongation of the thrombin time, this is instantly normalized upon the addition of $CaCl_2$. Applied on human plasma plates, the urokinase makes it possible to test the effect of various substances on a homologous human fibrinolytic system. Thymol blue (20/ug./ml.), heparin (5/ug./ml.) and a protein free urine fraction consistently enhance fibrinolysis in this system. Urokinase-induced digestion areas on human plasma plates grow very rapidly for a few hours and then level off. Human urokinase excretion, measured quantitatively (K. N. von Kaulla, E. Schneeberger, M. Curry: *Fed. Proc.*, 17:167, 1958) in connection with cardiac surgery, reveal a decrease after the operation to a fraction of the preoperative values. The minimum excretion occurs on the third-fourth postoperative day; then, there is subsequent gradual return to preoperative values. In both surgical and medical patients, a sudden rise of urokinase excretion to a considerably greater level than precedent values can be, an indication of imminent bleeding.

These changes in the excretion rate are independent from creatinine excretion or specific gravity of the urine. Our previous studies indicated that some types of surgery and pyrogen-induced fibrinolysis in man can also increase urokinase excretion.

In the search for more satisfactory stimuli to induce fibrinolysis and the alteration of urokinase excretion in man, it was found that i.v. $CaCl_2$, Ronicol Compositum, and other drugs bring about a rather pronounced fibrinolytic reaction within minutes, depending on the injection speed. This finding warrants further extensive search for synthetic compounds inducing therapeutically useful fibrinolysis.

PURIFICATION OF UROKINASE AND SOME CHARACTERISTICS OF THE PRODUCT

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Human urokinase has been brought to a high degree of purity by procedures involving its approximately 100-fold concentration by the foam technique (Celander, Langlinais, and Guest: *Arch Biochem. Biophys.*, 55:286, 1955), further purification by Chromatography on silicic acid (Ploug and Kjeldgaard: *Biochim. Biophys. Acta*, 24:278, 1957) followed by ammonium sulfate fractionation and separation from remaining impurities by means of chromatography on diethylaminoethyl (DEAE)-cellulose. The procedure is quantitative through the ammonium sulfate fractionation; the success of the second chromatographic step depends upon obtaining a satisfactory lot of DEAE-cellulose. The material so prepared has approximately 6,000 units urokinase (Celander, *et al, loc. cit.*) per milligram protein, corresponding to approximately 60,000 units per milligram protein when assayed by the method of Ploug and Kjeldgaard *(loc. cit.)*. From the data of the latter authors, the preparation appears to be nearly homogeneous. Under optimal conditions the overall yield approaches 100 per cent. Urokinase so derived has been used (1) in the study of profibrinolysin contamination in human fibrinogen prepared by the freeze-thaw technic with the resulting data indicating that about 0.03 per cent of the profibrinolysin present in human plasma is retained in the average freeze-thaw preparation of human fibrinogen; (2) in pyrogenic studies in which 0.36 mg. of the material, injected into the marginal ear vein of rabbits, produced a 1-2°C. temperature rise; and (3) in studies of antigenicity in guinea pigs and rabbits. In guinea pigs a total of 0.18 mg. urokinase injected in divided doses over a period of one month produced a degree of sensitization sufficient to cause acute anaphylaxis and death when the animal was challenged with 0.18 mg. of the same preparation or with urokinase prepared locally by the method of Ploug and Kjeldgaard. Urokinase, isolated from the urine of rabbits injected with human urokinase, produced similar anaphylaxis in sensitized guinea pigs. Although neither anaphylaxis nor a precipitin reaction was obtained with urokinase in presumably urokinase-sensitized rabbits, the serum globulin of these animals was more inhibitory to urokinase than was the globulin of normal animals. The significance of these findings is discussed.

EPSILON AMINOCAPROIC ACID: AN INHIBITOR OF PLASMINOGEN ACTIVATION

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Numerous substances have been described as plasmin inhibitors, but only in a few cases, due to the ambiguity of the methods used, has distinction been drawn between inhibition of plasminogen activation and inhibition of plasmin action. ε-aminocaproic acid, a newly described "plasmin-inhibitor" (British Patent Office Specification No. 770, 693, 1957) has been investigated not only on account of the intrinsic interest attached to the compound itself, but also as a model substance suited to the development of adequate methodology for such studies. Systems were developed for the obtaining of kinetic data and testing was performed against the plasminogen activators, streptokinase, urokinase and fibrinokinase. The effect of ε-aminocaproic acid was also tested on the enzymes, trypsin and plasmin, which possess both proteolytic activity and plasminogen activator activity (plasmin acts by autocatalytic action). ε-aminocaproic acid competitively inhibited the activation of plasminogen by streptokinase, urokinase and probably fibrinokinase, but inhibited plasminogen activation by trypsin non-competitively. The results were similar whether the appropriate test system contained human plasminogen or bovine plasminogen. ε-aminocaproic acid in concentrations exceeding 0.06 M was a non-competitive inhibitor of the proteolytic activities shown by plasmin or trypsin, but in lower concentrations it enhanced the proteolytic action of plasmin. The results supported the concept that plasminogen activation may occur by two mechanisms yielding plasmins with similar biochemical activities, but of different molecular size (*J. Biol. Chem.*, 233:86, 1958). The inhibitory actions of ε-aminocaproic acid on plasminogen activation were demonstrable at much lower concentrations than were required for plasmin inhibi-

tion. Where, as in plasma, both activities may occur together, the ability of ε-aminocaproic acid to inhibit plasminogen activator at concentration insufficient to effect plasmin activity permits their separate effects to be distinguished.

THROMBOLYTIC THERAPY IN PATIENTS SUFFERING FROM MYCOCARDIAL INFARCTION AND OTHER THROMBO-EMBOLIC STATES. A CONSIDERATION OF ITS PRODUCTION EFFECTS AND HAZARDS

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Thrombolysis, a term used to designate the lysis of thrombin or emboli, is mediated by a mechanism involving the absorption or diffusion of plasminogen activator to a thrombus, consequent activation of intrinsic thrombus plasminogen and resultant thrombolysis. The intravenous injection of a priming dose of streptokinase followed by the infusion of a suitable maintenance dose will produce, in man, a constant and high level of circulating plasminogen activator. Although plasma plasminogen and plasmin concentrations fall to undetectable levels, the plasma, by virtue of its plasminogen activator content, will lyse preformed isotopically labelled human plasma clots. The thrombolytic activity of the plasma measured under these test conditions, which approximate the experimental conditions *in vivo*, is of the order of 100-500 micrograms fibrin lysed/ml plasma/hour. Thrombolytic states of thirty or more hours duration have been induced, by means of this method, in fifty patients suffering from thrombo-embolic disease of whom twenty-four had early acute myocardial infarction. The induced thrombolytic state resulted in the production of a coagulation defect evinced by a rise in the one stage prothrombin time due partly to a fall in plasma accelerator globulin content but more importantly to the development of plasma antithrombin activity. This activity was thought to be caused by the presence of fibrinogen breakdown products and its appearance could in part be prevented by the administration of hydrocortisone. Clinically, there was evidence that in certain instances *in vivo* thrombolysis occurred as a consequence of the treatment and that therapy could be administered without deleterious consequence. Despite possible theoretical objections to its use in patients with myocardial infarction, eighteen of nineteen patients treated early survived for six or more months. It is emphasized that many problems remain for future solution.

CALCIUM PHOSPHATE CHROMATOGRAPHY OF PARTIALLY PURIFIED BOVINE PROFIBRINOLYSIN (PLASMINOGEN) AND ANTIFIBRINOLYSIN (ANTIPLASMIN)

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A 3-fold purification of non-dialyzed bovine plasminogen (*Amer. J. Physiol.*, 191:505, 1957) was obtained by forty-fold dilution and adjustment of the pH to 5.3, the plasminogen being in the precipitate. A further five- to six-fold purification was obtained on a small scale by chromatography on columns of calcium phosphate gel (*Arch. Biochem. Biophys.*, 65:132, 1956). At pH 6.8 plasminogen is eluted in the sodium phosphate concentration range 0.05M-0.10M. This material appears to contain at least one major impurity and has a specific activity approximately equivalent to that of human plasminogen prepared by the method of Kline (*J. Biol. Chem.*, 204:949, 1953). After removal of plasminogen from bovine serum, antiplasmin was precipitated between 40 per cent and 60 per cent saturation with ammonium sulfate. The antiplasmin fraction was further purified by dialysis and precipitation at pH 5.0, the precipitate being discarded. The supernate had a specific activity about five times greater than the original serum. On small calcium phosphate columns, a further ten-fold increase in activity was obtained by elution of the supernate in the phosphate concentration range 0.003M to 0.005M at pH 6.8. The eluted antiplasmin was very unstable, and lost its activity in 3 hours at 5°C. Larger quantities of a more stable preparation, having a lower activity (seven-fold increase only) but higher yield, were prepared by continuously applying the antiplasmin supernate in 0.04M sodium phosphate to a column.

PREVENTION AND PRODUCTION OF THROMBOSIS BY ALTERATIONS IN ELECTRIC ENVIRONMENT

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This study represents an investigation into the association between bio-electric alterations and intravascular thrombosis. An electrically positive environment, achieved by imposing a direct current in the range of 1 to 4 milliamperes across a segment of vein which had been occluded proximally, consistently resulted in the formation of an intravascular thrombus. Heparin uniformally protected against this electrically induced thrombus, while dicumarol had no effect. The heparin protection was to be expected since in-

jection of heparin markedly increased the electronegativity of flowing blood in respect to the adventitia of the blood vessel, concomitant with its increase of clotting time. The impostion of an electrically negative field to a blood vessel prevented or markedly diminished the formation of a chemically induced intravascular thrombus. A current ranging between one and four milliamperes was used to make a segment of the femoral vein electrically negative. The opposite femoral vein was used as a currentless control and 500 units of topical thrombin were injected to both femoral veins which had been occluded proximally. After thirty minutes the veins were opened. In all instances a large thrombus had formed in the control vein while half the veins which were protected with a negative current contained no thrombi. The remainder had minimal thrombi which was significantly smaller than their currentless control. The summation of these results suggests that an electric alteration is one of the common denominators for intravascular thromboses, which occur subsequent to a variety of blood vessel trauma and change in the constituents of blood.

OBSERVATIONS ON THE BIOSYNTHESIS OF STAPHYLOCOAGULASE

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The following relates to both the unique position staphylocoagulase occupies in the clotting of blood and to the close tie it bears the pathogenicity of *Staphylococcus aureus.*

This work was initiated in 1950 with the study of the relationship of coagulase to the blood clotting scheme as the objective. The development and use of a special growth medium made convenient for study a potent concentrate of coagulase. The medium, a dialysate of heart infusion broth, was separated from the coagulase by dialysis and the coagulase was concentrated by lyophilization. Coagulase could also be removed by Seitz filtration. These coagulase preparations had no effect on conversion of fibrinogen in the presence of prothrombin activators. These and other observations offered no definition for the mechanism of coagulase clotting.

A number of special media were tested for coagulase production capacity. Often, luxurious growth coexisted with suppression of coagulase production. The possibility that these media presented varying amounts of material(s) necessary for coagulase synthesis was investigated. Dr. Isabel I. Szeto and I gave characterization to the coagulase production capacity of the dialysate of heart infusion broth. In all tested cases the substance(s) behaved as could a peptide.

THE AMINO ACID COMPOSITION OF THROMBIN PREPARATIONS

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Five bovine prothrombin preparations containing traces of accelerator globulin (*Record Chem. Prog.*, 13:143, 1952) were completely activated at optimum calcium concentration in the presence of an excess of sedimentable lung thromboplastin. After removing the thromboplastin by centrifuging, the thrombin was precipitated from 50 per cent cold acetone. Subsequently, the thrombin was separated by chromatography on the ion exchanger, IRC-50 (XE-64) as described by Rasmussen (*Biochem. et Biophys. Acta*, 14:567, 1954). The active protein was obtained from the chromatographic solvent, 0.3M phosphate buffer, pH 8.0, by the addition of 3 volumes of saturated ammonium sulfate in the cold. The precipitate was collected by centrifuging and reprecipitated three times with 50 per cent acetone after dissolving each precipitate in water. These final thrombin products were dried to constant weight *in vacuo* at 58°C. The nitrogen content was 16.3 per cent of the dry weight. Constant boiling HCl which had been twice distilled in an all glass system was added in the proportion of 1 ml. per 5 mg. of thrombin protein. The solutions were sealed under vacuum and digested at 110°C. for varying periods of from seventeen to seventy-two hours. Very little humin formation was demonstrable.

TABLE I. THE AMINO ACID COMPOSITION OF BOVINE THROMBIN

Residue	μMaa / 100μMN	g. aa Residues / 100 g. Protein
ASP	6.05	8.10
THR	2.99	3.52
SER	3.48	3.51
GLU	7.06	10.86
PRO	3.44	3.89
GLY	5.44	3.62
ALA	3.04	2.51
CYS	1.85	2.20
VAL	3.95	4.55
MET	1.06	1.61
ILEU	2.61	3.45
LEU	5.85	7.70
TYR	2.36	4.83
PHE	2.66	4.22
GAL.NH_2(?)	.64	1.08
LYS	5.32	7.93
HIS	1.37	2.18
NH_3	4.26	— .05
ARG	4.87	8.83
TRY*	1.60	3.24
Total	94.17†	87.88

*Spectrophotometric determination—this determination gave 4.98 for TYR.
† μM aa N recovered per 100μMN.

The hydrolyzates were dried *in vacuo*, the removal of HCl being insured by drying two subsequent aqueous solutions of the hydrolyzed materials *in vacuo*.

Amino acid composition of the hydrolyzates was determined by chromatography on Dowex 50-X4 by the procedure of Moore and Stein (*J. Biol. Chem.*, 211:893, 1954) employing an automatic, continuous-recording apparatus designed after Spackman, Moore and Stein (*Analyt. Chem.*, 30:1190, 1958). Tryptophane and tyrosine were determined by the spectrophotometric method of Holiday and Ogston (*Biochem. J.*, 32:466, 1938). No reducing sugar was detected on reacting the thrombin with anthrone in concentrated sulfuric acid. Corrections for loss of amino acids during hydrolysis are based on their loss from bovine pancreatic ribonuclease A hydrolyzed under identical conditions and include 7.5 per cent for serine, 4 per cent for threonine, 3 per cent for glutamic acid and 1.5 per cent for aspartic acid. The analytical results appearing in the table are from duplicate determinations of a single preparation but are in good agreement with the values for the other preparations analyzed.

The discrepancy between weight and nitrogen recovery remains a problem in considering this data. Sufficient quantities of thrombin were not available for ash determination. It is possible that the thrombin was prepared as the ammonium salt by the fractionation procedures outlined, thus yielding high ammonia figures. Prothrombin (*Arch. Biochem.*, 49:276, 1954) is relatively lower in lysine and higher in serine and alanine content than thrombin. The reducing sugar of the prothrombin apparently is a constituent of the non-thrombin fragment produced during prothrombin activation (*Fed. Proc.*, 17:276, 1958).

METABOLISM OF ISOTOPICALLY LABELED SERUM ALBUMIN

S. Fleischer, H. Walter and F. Haurowitz
Indiana University, Bloomington, Indiana

Rabbits, guinea-pigs, rats and chickens were injected with amino acids containing S^{35} or C^{14}. A few hours or one to two days later the animals were bled; their plasma proteins were isolated and coupled with traces of I^{131}. If the doubly labeled serum albumin was injected into animals of the same or another species, we found invariably that the protein-bound radioactivity of the S^{35}- or C^{14}-amino acids persisted much longer in the circulation than the activity of I^{131}. We attribute the observed difference in the fate of the two isotopes to breakdown of some of the serum albumin in the tissues, excretion of iodinated breakdown products and reutilization of the internally labeled amino acids for the synthesis of new organ proteins. (*J. Biol. Chem.*, 224:107, 1957).

Are the injected serum albumin molecules broken down randomly or are "old" molecules broken down first? To answer this question we injected one group of rats with serum albumin from rats killed eight hours after the injection of S^{35}-amino acids and another group with the serum albumin of rats killed four days after injection of S^{35}-amino acids. We found no significant difference between the half-lives of the young and the old serum albumin molecules (Science, 128:140, 1958). This indicates that the serum albumin molecules are broken down randomly and not in dependence of their age. In other experiments (unpublished) we have injected one group of adult rabbits with the S^{35}-serum albumin of adult rabbits, another group with the serum albumin of new-born rabbits. The half-life of the serum albumins of both groups was approximately 6.5 to 7.0 days. In some of these experiments the serum albumin had been prepared by salting-out with ammonium sulfate, in others by precipitation with TCA and extraction with acetone. No difference between the half-life of these two preparations was detected. We conclude from our experiments that the serum albumin of newborn rabbits is identical with that of adult rabbits and that its metabolism is not affected by treatment with TCA.

BIOCHEMICAL AND PHYSICOCHEMICAL STUDIES OF HUMAN PLASMINOGEN

Werner Baumgarten and Rose B. Cole
Merck Institute for Therapeutic Research, West Point, Pennsylvania

Plasminogen isolated from human plasma possesses two enzymatic functions when activated with streptokinase, the proteolytic and the fibrinolytic (activator) component. Definite differentiation of these two entities has not been achieved, however, it has been established that at least their precursors, proenzyme and proactivator, prior to conversion with streptokinase possess different stabilities. Similar relationships have also been found in purification studies of crude plasminogen by modified Kline procedures and by subfractionation.

THE COMPARISON OF THE HYDROLYSIS OF TOSYL-DL-ARGININE METHYLESTER BY THROMBIN AND TRYPSIN

M. Laskowski, Jr.
Purdue University, Lafayette, Indiana

Sherry and Troll (*J. Biol. Chem.*, 208, 95, 1954) have shown that thrombin hydrolyzes tosyl-L-Arginine methylester (L-TAMe), the best of known substrates for trypsin. Later studies by many workers have shown that while the thrombin specificity towards several substrates is very similar to that of

trypsin the activity towards most tryptic substrates is very weak—thus suggesting a higher degree of preferential specificity for thrombin.

Surprisingly both thrombin and trypsin hydrolyze DL-TAMe almost completely. However, of the two, thrombin appears to discriminate a good deal less between the L and D forms, that is, the ratio of k_3L/k_3D is considerably greater for trypsin than for thrombin. Some implications of this result on preferential specificity of thrombin will be discussed.

SOME ASPECTS OF THROMBOLYSIS IN MAN

A. J. Johnson, W. R. McCarty and W. S. Tillett
New York University-Bellevue College of Medicine, New York, New York

Clinical studies of thrombolysis in man, utilizing streptokinase or streptokinase-plasmin for the therapy of intravascular thromboembolic disease, are complicated by: (a) variations in the natural course of disease, and (b) an anti-inflammatory effect that may follow clinical use of the enzymes.

In the present studies, experimental thrombi were induced in human volunteers. Twenty-four or forty-eight hours later, streptokinase (SK) was infused under controlled conditions to produce a proteolytic system, *in vivo*, consisting primarily of: (1) circulating SK-plasmin; (2) circulating free SK (or activator); or (3) plasmin plus free SK. The relative efficacy of each system was then tested for its ability to produce sustained lysis of the experimental thrombi.

Thirty-eight thrombi were induced by direct irritation of the intima with a dental broach or by chemical irritation with sodium morrhuate. The position and size of the clots were documented clinically and by venograms. No spontaneous lysis occurred in all (13) controls. In each instance, SK was infused systemically, into a contralateral extremity.

In order to produce fibrinolysis, an initial priming dose was given which was calculated to just neutralize the circulating antibody and inhibitor in each patient. Therefore, additional infused SK was free to produce active fibrinolysis. The additional SK was given in an amount appropriate for the production of one of the three proteolytic systems enumerated above.

The duration of the sustained SK infusion (about twenty-four hours), and the amount, were determined by following the various biochemical constituents of the fibrinolytic system in the patient's blood, and by clinical and x-ray appraisal of the experimentally induced clot. After clot lysis had occurred, reformation of the clot was prevented, in those patients with sufficient residual plasminogen, by prolonging the SK infusion for an additional 4-6 hours. These studies demonstrate *in vivo* that: (1) Circulating plasmin, without free SK, was ineffective in the production of sustained clot lysis; (2) Moderate or large amounts of circulating free SK, without plasmin, depleted the circulating plasminogen (and plasmin) so that there was insufficient substrate for consistent, sustained thrombolysis; (3) Small amounts of circulation plasmin *and* free SK produced consistent, reproducible, thrombolysis and prevented reformation of the clots in all eleven instances.

A TIME LAPSE CINEMATOGRAPHIC STUDY OF CLOT RETRACTION

Giorgio Ballerini and Walter H. Seegers
Wayne State University College of Medicine, Detroit, Michigan

The film portrays the process of clot retraction as observed in test tubes. The events of two hours duration are reduced to less than one minute. The influence of some of the more commonly known variables on clot retraction are included for education purposes alone. In addition some of the results of more recent investigations are included. The extent of retraction is dependent upon temperature, cell volume, pH, fibrinogen concentration, thrombin concentration, calcium ion concentration, and platelet concentration. Plasma contains dializable material concerned with clot retraction, and this includes glucose, phosphorus, and perhaps other substances. Plasma also contains one or more proteins of importance to clot retraction.

EFFECTS OF HUMAN SALIVA ON BLOOD COAGULATION

D. H. Kang and P. H. Lee
Yonsei University School of Medicine, Seoul, Korea

Human saliva posseses an ability which accelerates the prothrombin time and coagulation time of rabbit, dog, and human.

The nature of accelerating factor is not fully understood, but the work on its purification is quite advanced. It is destroyed by strong alkali as well as strong acid, is unstable to heat above 50°C and insoluble in alcohol, acetone, and ether, indicating the probability of its being protein in nature.

It is also precipitated by a half saturated to a completely saturated ammonium sulfate solution, and it is non-dialysable.

Further study shows it is absorbed by barium sulfate, but not by other adsorbents such as barium carbonate and kaolin. Since it is adsorbed by barium sulfate, and eluated by 3.8 per cent sodium citrate, we were able to collect a relatively large quantity of it.

It's ability to cause a shortening of prothrombin time in either the one-stage or two-stage procedure and clotting time is probably due to its interrelation with thromboplastin.

Nineteen Hundred and Sixty

With the closing of the old year and the beginning of the new, the world is passing through a very significant epoch. We are entering a new year and also a new decade. History has been teaching us that progress, new methods, and new materials are changing our mode of life and our outlook upon life. The 1950 decade—physically, economically, and in every other indication—has been one of tremendous progress. Medicine has been in the forefront.

In the decade just passed we have seen the introduction of new methods, new drugs, almost a complete new field of surgery and therewith new problems for the doctors and for the public.

We have developed the atom into a useful servant and have adapted it to our medical field in an astounding manner. When one looks over the ten-year period, heart surgery has practically been born during this decade, cranial surgery is very much advanced, and the antibiotics have not entirely, but almost, replaced mastoid surgery.

We have practically doubled the use of our hospitals. In many areas, new wards or isolation areas have been established at tremendous expense where the acutely and desperately ill medical or surgical patients can be kept under twenty-four-hour observation and immediate care of the nursing and medical staff. This has not only increased the cost of medical care but has increased the economic stress of paying for that care.

The public attitude as expressed by articles in the general magazines has undergone a tremendous change. *The Saturday Evening Post* has just concluded a series about what is happening to the family doctor; *Life* has published a series about modern medical problems; *Look* has also presented very illuminating studies; *McCall's* has had many on similar lines; *Ladies Home Journal* has entered the field of sex and family relations, and *Kiwanis Magazine* had a wonderful article about why some hospitals are losing money. Ten years ago, in November, 1949, we had an editorial entitled "Is Your Hospital Spreading Tuberculosis?" in which reference was made to the *Woman's Home Companion*. Editorials in December, 1949 were "Welfare State", "Police State", and "Compulsory Welfare Plans", and in January 1959, "Vicious Publicity" which was stimulated by *Harper's Magazine*.

In this new decade, it is fitting that we look forward. THE JOURNAL of the Michigan State Medical Society is appearing in a partially new dress. We have changed the type faces hoping to make it more legible, more attractive and pleasing to our readers. We are making other changes in an effort to make a more usable journal. The contents page has been reconstructed, and many of the materials and articles are being gathered under different headings. Our scientific papers will have a different title page.

During the year, the Michigan State Medical Society will move into its new home in East Lansing.

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Politics

We are entering upon a new year in local and national political situations and the Federal government is passing through a presidential election year. All political parties will be seeking votes and making programs.

National legislation needs to be watched seriously. The Jenkins-Keogh-Simpson program which will allow self-employed persons—doctors, lawyers, dentists, architects, et cetera, to establish a retirement fund before taxation, rests in the Senate. It has passed the House. This is the opportune time to convince the senators that the enactment of this legislation is desired by the public, not as a favor but as justice to the self-employed. It should be passed.

The Forand Bill, which would place up to 15 million people under socialized medicine, again will be considered more intensely by the congress. We believe that our members all know that this bill makes hospitalization and surgical service available to every person who is a beneficiary of social security. If a person receives security benefits, he is eligible for medical and hospital service under this act. The medical profession is interested in all the above legislation.

Instead of the Forand Bill, the Social Security Act desperately needs an amendment permitting and encouraging our "senior citizens" to work. The Social Security benefits are grievously inadequate but if the beneficiary works more than a pitifully small stint, his benefits are cancelled. *This restriction against working should be completely removed.* The forced retirement from gainful activity by legislation has never had justification in practical fact.

Michigan Economics

Michigan is in financial trouble. The situation and the analysis depends on whether you are a Democrat or a Republican. The two do not agree either as to the seriousness of the economic situation or the method of caring for it. All agree that the State of Michigan is slow in paying its bills.

The medical profession is a wise and well educated group, trained to analyze and diagnose. Whenever given an opportunity, our members should lend their advice to the solving of Michigan's problems.

Constructive, cohesive, building-up efforts are sorely needed. As a profession we have the ability—not to mention the historic and traditional background—attributed to the revered "family doctor."

Many of our doctors are now, and have been, serving their communities. Information about one of the new Councilors, Dr. R. J. Mason, Birmingham, calls attention to his serving on the United Fund. Another, Dr. O. B. McGillicuddy, served in Lansing, and recently headed a very successful campaign. Luther R. Leader, M.D., of Detroit, Chairman of the Relative Value Study Committee, for years has been on the Detroit area United Fund—Red Feather Board, and very active. His Board for several years has set unprecedented campaign records. Dr. B. M. Harris is a member of the State United Fund Board. In Battle Creek, Dr. E. F. Jones, M.D., is president and two other doctors of medicine serve on the board of the Battle Creek Area United Fund. We are sure a canvass would show many more giving their active aid in numerous public trusts.

Hospitals

Hospitals in Michigan and throughout the United States are in serious trouble.

Almost all of them must take care of indigent, aged, relief and welfare patients, the blind, the handicapped, and others with utterly inadequate incomes. The great advances in services, equipment, and facilities of the hospital have caused a tremendous increase in the basic cost of operating hospitals. In almost every state there are provisions to pay for welfare patients, but in most of them the amount paid is never equal to the cost required for maintenance and operation of those hospitals.

This situation holds in Michigan. We had such a sample this past year when our Crippled Children's Commission was over one-half million dollars in arrears in paying for services at University Hospital which is not State supported, contrary to the opinion of most people.

By legislation, the state has placed an upper limit on the amount it will pay for services to these patients. That leaves nearly half of the bill unpaid. The State *is* in financial difficulties, but in the social welfare department and for crippled children, it should make payments adequate to cover hospital cost. The state is faced with a major readjustment. If it buys automobiles or other materials, it pays the charges; but in the area of medical and hospital services, it puts an upper inadequate limit upon its payment. In present readjustment, governmental planners must face facts, correct defects, and prepare to pay welfare and relief bills on a prompt and just basis.

Elections

William Amos Scott, M.D.

At the annual session in September 1959, William A. Scott, M.D., of Kalamazoo, was elected Councilor of the Fourth Councilor District to fill the unexpired term of Ralph W. Shook, M.D., who died August 9. This term expires in 1961.

Doctor Scott was born in Kalamazoo on November 23, 1904. He attended Kalamazoo College and the University of Michigan, receiving his medical degree in 1930. He took his psychiatric internship at Traverse City State Hospital in 1930-1931, Ypsilanti State Hospital in 1931-32, was assistant physician at Ypsilanti State Hospital from 1932 to 1937 and has been in private practice in Kalamazoo since that time. He is psychiatrist to Kalamazoo College and Western Michigan University. He was consultant to the surgeon general at Percy Jones General Hospital in Battle Creek.

From 1942 to 1944, he served with the AAF, officer in charge of professional services at Amarillo, AAF Regional Hospital. From 1944 to 1945 he served overseas in Alaska with the Eleventh Air Force Command.

Doctor Scott is a member of the Michigan State Medical Society, the American Medical Association, and Michigan Society for Mental Hygiene. He is also a member of the Kalamazoo Chamber of Commerce, the Galens, Alpha Kappa Kappa, the Kalamazoo Club, and the Park Club. His office is at Bronson Medical Center. He is married and has two children.

Robert J. Mason, M.D.

Robert J. Mason, M.D., was selected by the House of Delegates at the annual session in September as Councilor for the Fifteenth Councilor District, to fill the unexpired term of D. Bruce Wiley, M.D., which expires in 1960. Doctor Wiley resigned to become Secretary of the Michigan State Medical Society. Doctor Mason was born February 5, 1905, at Salida, Colorado. He attended the University of Chicago getting his A.B. degree in 1925, and medical degree from Rush Medical College in 1929. He was intern and resident at Henry Ford Hospital in Detroit from 1929 to 1932 in pediatrics.

He has been practicing in Birmingham since 1932. He is a member of the Oakland County Medical Society. He served as commander, medical corps, United States Naval Reserve, 1942 to 1946. Member of the Birmingham Chamber of Commerce (Director and Past President). In 1949, he was Director of the Birmingham United Fund, member of City Planning Commission, Fellow of the American Academy of Pediatrics, member of the American Medical Association, Michigan State Medical Society, Detroit Pediatric Society (past-president), Chairman of the MSMS Pediatric Section in 1951, and of the Child Welfare Commission. He is married and has three children.

* * *

B. M. Harris, M.D., Ypsilanti, was re-elected Councilor of the Fourteenth District, and William Bromme, M.D., Detroit, was re-elected Councilor of the Eighteenth District.

Michigan Medical Service President

G. Thomas McKean, M.D., of Detroit, was elected President of Michigan Medical Service. He was selected at the first meeting following the death of L. Fernald Foster, M.D., who had been serving for about three years.

On September 29, 1959, four new directors were elected to the Board of Michigan Medical Service by the members of the Corporation, meeting during the annual session of the MSMS. J. S. DeTar, M.D., who had previously served on the Michigan Medical Service Board was returned to that Directorship. Six members of the previous board were continued in office.

On October 7, 1959, the Board held its annual election. At this time, much discussion revolved about the office of president and the need for a full-time executive in this position. Pending decisions in this regard, election of a new president was deferred and Doctor McKean continues in the office.

Doctor McKean was born in Detroit in 1908, received his A.B. degree from the University of Michigan, and his M.D. from Harvard Medical School. Internship and residency training were at the Boston City Hospital and at University Hospital, Ann Arbor. He was licensed to practice in Michigan in 1936 and

was certified by the American Board of Internal Medicine in 1942. During World War II, he served with the 17th General Hospital in the Army Medical Corps. Doctor McKean is clinical associate professor of medicine at Wayne State University College of Medicine and attending consultant at Herman Keifer Hospital. He is a staff member of Harper and Receiving Hospitals, Detroit. He was Secretary of the Wayne County Medical Society in 1948-50.

In 1958-59, he was chairman of the medical section of the Michigan State Medical Society and from 1950 to 1956 served on the Michigan State Sanatorium Commission. He has been active on the Committee on Prepaid Medical Care Plans of MSMS. He is a member of the American Medical Association and the American College of Physicians, Wayne County Medical Society, Michigan State Medical Society, American Trudeau Society, Detroit Academy of Medicine, Detroit Surgical Association, Detroit Medical Club. He has also been a councilor of the Michigan State Medical Society since July, 1955, and has been a member of the Board of Michigan Medical Service since 1955.

EDITORIAL COMMENT

For Medical Examiners

Kalamazoo Gazette, October 24, 1959

The case for replacement of coroners by medical examiners which Prosecuting Attorney Jacob A. Dalm, Jr., made before the Kalamazoo Academy of Medicine demands serious consideration both by the medical profession and by the Board of Supervisors.

Dalm asserted that what is needed is "a pathologist with medico-legal training and experience."

The matter is not, of course, a pressing one for Kalamazoo County. The local coroners, presently, are doctors.

But that might not always be the case. The office is elective, and no special requirements are set up.

As the prosecutor pointed out, while nineteen of the eighty-three counties in Michigan have medical examiners rather than coroners, fifty-seven of the other sixty-four have coroners who are laymen.

Few can doubt that under such circumstances, a layman coroner often may fail to discover any telltale signs of homicide, or that coroners' juries (also, almost invariably laymen) have little background for deciding upon their verdicts.

The coroner system, however well adapted to a more primitive society it may have been, has largely been outmoded by the progress of science.

The prosecutor emphasized that he was not criticizing the coroner system as it functions now in Kalamazoo County.

We should look ahead, however. Changing the system takes time. It requires a resolution by the Board of Supervisors putting the question on the ballot, and approval by vote of the people.

Fortunately, this county's situation is such that mature consideration by all, including the voters, can be had.

Medical Care Appraisal Plan

AMA Annals of Internal Medicine, October, 1959

In 1956, a Committee of the American College of Physicians developed a plan by which the quality of practice of internal medicine in the hospitals of this country can be appraised.

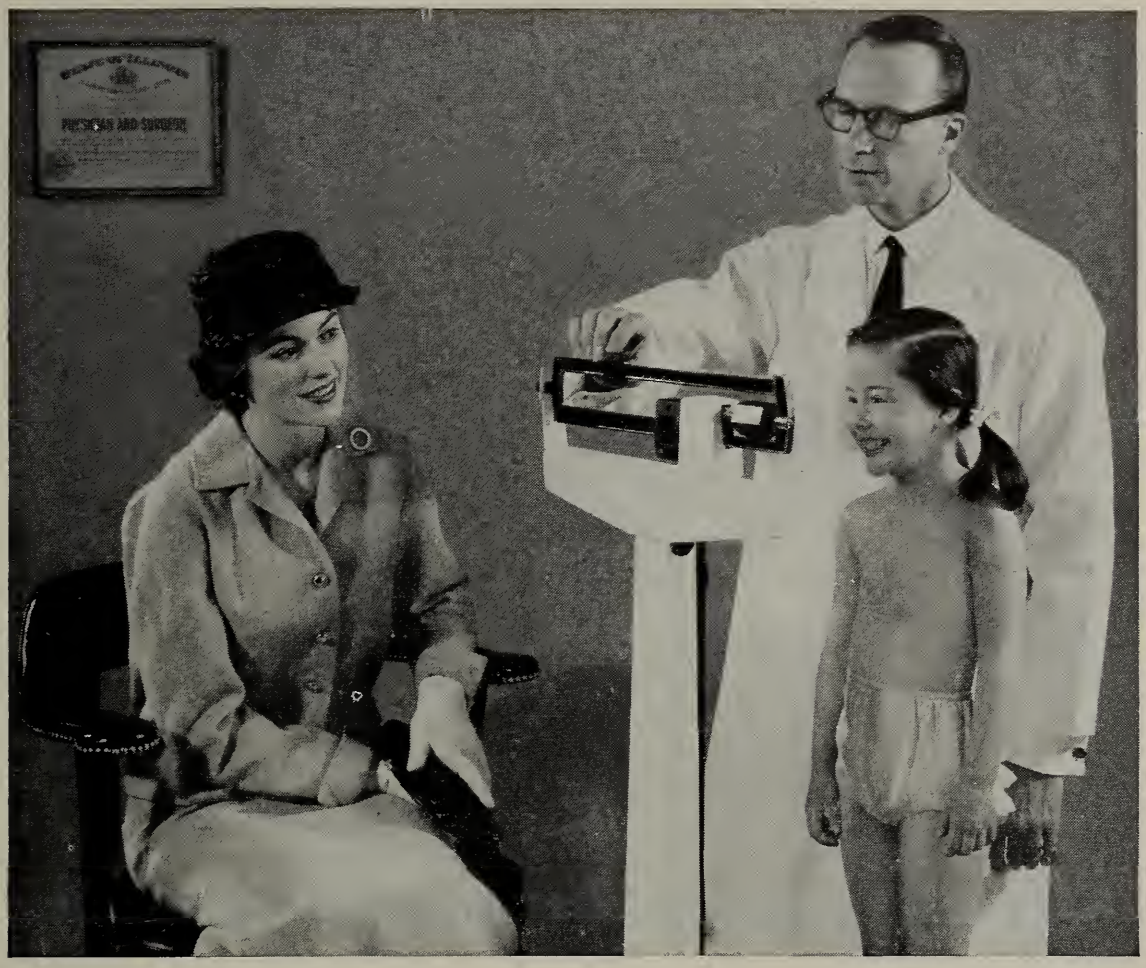
This study evaluated the quality of medical performance. It was made possible by an appropriation of $37,000 by the American College of Physicians and additional grants by the National Institutes of Health.

It was concluded that the quality of practice of internal medicine in hospitals can be judged by evaluating the records of a variety of patients by physicians who are trained as internists. The hospital staff has to assess the quality of its own work.

After three years of field work, a Medical Care Appraisal Plan was developed. This plan calls for the organization of an Appraisal Committee chosen from members of the hospital staff who practice general medicine or allied specialties. This Committee will evaluate medical care and act in an educational capacity only. Disciplinary action, if needed, would be left to the Executive Committee of the staff.

Medical records of patients treated, as well as those who have died, would be evaluated; the number of records examined being determined by the number of medical admissions each month. These should equal 20 per cent of such admissions. Records from different disease categories should be evaluated each month. Some records of every staff member who practices internal medicine should be examined at least once a year. A written report should be made for each record, but must *not* be kept with the patient's record. It should be available only to the Committee.

(Turn to Page 134)



Underweight Children Gain and Retain Weight with Nilevar®

One of the most convincing evidences of the anabolic activity of Nilevar, brand of norethandrolone, has been its ability to improve appetite and increase weight in poorly nourished, underweight children.

A highly important feature of the weight gain thus produced is that it is not ordinarily manifested by deposition of fat but as muscle tissue resulting from the protein anabolism induced by Nilevar.

Anorexia and "Weight Lag" Study—Brown, Libo and Nussbaum have reported* consistent and definite increases in rate of weight gain in eighty-six patients, ranging in age from 7 weeks to 15½ years. This beneficial action of Nilevar was observed in the patients with organic and traumatic disorders as well as those whose only complaints were poor appetite and/or persistent failure to gain weight.

In this study, the weight gained was not lost after discontinuance of Nilevar therapy although many patients did not continue the sharp gains effected by the drug.

The authors are of the opinion that Nilevar is a highly useful anabolic agent for influencing weight gain in underweight children.

When Nilevar is administered to children a dose of 0.25 mg. per pound of body weight is recommended and continuous dosage for more than three months is not recommended.

Nilevar is supplied as tablets of 10 mg., drops of 0.25 mg. per drop and ampuls of 25 mg. in 1 cc. of sesame oil. Further dosage information in Searle Reference Manual No. 4.

G. D. Searle & Co., Chicago 80, Illinois.
Research in the Service of Medicine.

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*Brown, S. S.; Libo, H. W., and Nussbaum, A. H.: Norethandralane in the Successful Management of Anorexia and "Weight Lag" in Children, Scientific Exhibit presented at the Annual Meeting of the American Academy of Pediatrics, Chicago, Oct. 20-23, 1958.

Perinatal Mortality

The most dangerous experience in man's life, before he ultimately passes on, is being born. More people die aborning than between age one month and forty years. Hospitals and communities have accepted this high mortality as they accepted the high maternal mortality before 1930.

Perinatal loss is a problem that concerns the medical scientists, clinicians, public health workers; and through its impact on our socio-economic status, it becomes the concern of political scientists, nutritionists, economists and sociologists and the general public.

Public health agencies have played a pre-eminent role in the attack on the problem of perinatal loss. But there never will be a solution until the obstetrician, whether he be a general practitioner or a specialist, develops a permanent sustaining interest in the long range program of research, the basis of which is the perinatal mortality conference. At these hospital conferences all, or a selected group of foetal and neonatal deaths, are discussed by an inter-departmental group attended by obstetricians, pediatricians, pathologists and others interested in the problem.

A fringe benefit of the mortality study should reveal an improvement in morbidity, with the lessening of long range after effects of cerebral spastics, mental retardation and possibly congenital abnormalities.

Perinatal mortality studies are active in Saginaw, Detroit, Grand Rapids, and are being developed in other localities. We have all been interested for years in the near "obstetrical tragedy," and perinatal mortality studies help us to further evaluate these close calls. Dr. Toshach is too modest to mention his Michigan pioneer work in this field, but we of the maternal health committee are proud of his efforts and are vigorously supporting his original efforts.

Editorial Comment

(Continued from Page 132)

This plan is not intended to seek out instances of mismanagement, but rather to promote systematic investigations of hospital performance which will benefit every member. Suggestions of the committee would form the basis of general discussions at staff meetings and hence would encourage all members of the staff to assist in elevating standards.

Further information may be obtained from the national office of the American College of Physicians, 4200 Pine Street, Philadelphia 4, Pennsylvania.

Farm Bureau Says Forand Bill Is "Socialized Medicine"

Lapeer County Press, September 10, 1959

A spokesman for the American Farm Bureau Federation last week rejected, as "an opening wedge to socialized medicine," proposals to increase the social security tax and provide payment of hospital and surgical costs for persons receiving social security benefits.

Keith Wallace, president of the Vermont State Farm Bureau, told a House Ways and Means Committee hearing that the Forand bill (H.R. 4700) would "very seriously impair, if not completely supersede," efforts to promote voluntary prepaid health and hospital insurance plans.

Mr. Wallace said the social security tax is "already a heavy burden" on farmers and other self-employed persons.

"The tax burden on the self-employed is not only greater than on the employed, but the responsibility for meeting such substantial payments accentuates for him the burden of the tax," he added.

"To further increase this burden by 3/8 of one per cent is undesirable, unneeded, and not requested by the people. It should not be imposed."

AMA Washington Report

Social Security Expansion Looms as Election Issue

Congress embarked on a crucial election year session with expansion of the Social Security program shaping up as one of the major issues.

It was virtually a foregone conclusion that some liberalization of the program would be voted in the Democratic-controlled Congress, but the key question was how far the changes would go. In every Presidential election year during recent years, the House and Senate have approved a broadening of the program.

One of the prime reasons Social Security has been an election year "favorite" is that the program can be boosted without affecting the Federal budget. This is because it is financed through employer-employe contributions and is theoretically self-supporting.

* * *

OF SPECIAL INTEREST to physicians, of course, is the fate of the so-called Forand bill that would provide hospitalization, surgical services, and nursing home care for Social Security beneficiaries. This would be accomplished through even higher taxes on employes and employers than now scheduled through already-voted step increases.

Supporters of the controversial legislation—vigorously opposed by the Administration, the American Medical Association, and allied organizations—launched their move to win enactment this session.

Sen. Pat McNamara, (D., Mich.), whose Senate Subcommittee on Aging held a series of hearings across the country during the recess, announced at the conclusion of the hearings that they showed a need for expanding Social Security to include health care for the aged. He indicated he thought the Forand bill did not go far enough.

* * *

A BATTERY OF SPEAKERS at a meeting here of the American Public Welfare Association also urged a sharp increase in benefits, with some advocating "cradle to grave" security for all.

Not all of the proposals for extending the program involved health care.

The Administration indicated it would recommend some expansion, especially in the disability program under which the Federal government helps the states provide assistance to persons over age fifty judged to be totally and permanently disabled. An influential lawmaker, Rep. Burr Harrison (D., Va.), disclosed that he would introduce legislation to remove the age fifty limitation to allow all persons regardless of age to participate. He estimated this would not require any hiking of the taxes. Rep. Harrison is Chairman of a House Ways and Means Subcommittee that held recess hearings on administration of the disability program.

Meanwhile, Chairman Wilbur Mills (D., Ark.) of the full Ways and Means Committee cleared the way for full-scale hearings this Congressional session on the entire issue of Social Security. In listing specific phases to be considered, however, the lawmaker did not mention the Forand proposal.

* * *

A SPOKESMAN for the American Medical Association told the Federal Communications Commission that the AMA believes the best solution to objectionable advertising and programs on television and radio is for the industry "to clean its own house."

Eugene F. Hoffman, M.D., co-chairman of the AMA's Physician's Advisory Committee on Television, Radio and Motion Pictures, declared "the medical profession stands ready to assist the networks and individual stations in determining accuracy and good taste of broadcast material involving health or medicine—either commercial or public service."

Report of AMA House of Delegates

December 1 to 4, 1959, Dallas, Texas

ACTION IN BRIEF

- Approved resolution stating: "Lest there be any misinterpretation, we state unequivocally that the AMA firmly subscribes to freedom of choice of physician and free competition among physicians as being prerequisites to optimal medical care. The benefits of any system which provides medical care must be judged on the degree to which it allows of, or abridges, such freedom of choice and such competition."
- Called upon each individual physician to wage "a vigorous, dynamic and uncompromising fight" against the Forand type of legislation.
- Reaffirmed previous policy statement approving in principle relative value studies by state medical societies.
- Urged state and local medical societies and individual physicians to implement the AMA program for recruitment of high-grade medical students.
- Urged medical schools to include course work in social, political and economic aspects of medicine.
- Reiterated the AMA's support of the Blue Shield concept.
- Urged Americans to get proper tetanus toxoid, original and booster, and other immunizations as indicated from their physicians.
- Suggested that AMA make available to school libraries information and literature showing the advantages of private medical care and the American free enterprise system.
- Approved creation of special study committee to evaluate present scholarship program and to investigate new aspects of programs to help meet the need for an increasing number of physicians in the future.
- Urged promotion of "Guides for Medical Care in Nursing Homes and Related Facilities."
- Reaffirmed the 1951 "Guides for Conduct of Physicians in Relationships with Institutions."
- Named Chesley M. Martin, Elgin, Okla., as "1959 General Practitioner of the Year."
- AMA President Louis M. Orr urged every physician "to take more active interest in politics, public affairs and community life."

Professional Relations Conference Set for Blue Shield

The 1960 Blue Shield Professional Relations Conference will be held from February 1 to 3 at the Drake Hotel in Chicago, according to an announcement made today by Russell B. Carson, M.D., chairman of the Professional Relations Committee of the National Association of Blue Shield Plans.

A record attendance is anticipated for this 10th annual program, which brings together representatives of the medical profession and Blue Shield Plans for the specific purpose of discussing relationships between the Plans and physicians.

The 1960 conference theme is "Facing the Facts—in the Future of Blue Shield." Among the subjects to be discussed by recognized leaders in American medicine and Blue Shield are: "The Federal Legislative Climate and the Future of Voluntary Health Care Programs," "Blue Shield Coverage for the Aged," "Public Opinion and Its Application in Shaping Future Developments in Blue Shield," and "How Business Management Judges Health Care Coverage in Relation to Present Needs and Future Developments."

Cancer Research Institute Directors Organize

Directors of cancer research institutes in America have formed the Association of Cancer Institute Directors for the purpose of exchanging information among the various institutes.

The first president is George Moore, M.D., director, Roswell Park Memorial Institute, Buffalo, New York.

The Association of Cancer Institute Directors has been designed to support investigations of the causes, nature, treatment and prevention of malignant diseases; to encourage the exchange of ideas, information, personnel and special facilities between groups with predominant interests in cancer; to foster educational opportunities in the bio-medical sciences; to provide guidance to private and civil organizations concerning cancer research, education and the care of cancer patients, and to expedite the dissemination of information by the meeting together of the scientific executive officers of cancer institutes.

Among the members of the Association is the Detroit Institute of Cancer Research.

Explains Medical Care Obligations

Professor B. James George, of the University of Michigan Law School, has issued a warning that parents who deliberately fail to authorize needed medical care for their children for religious reasons may be found guilty of manslaughter if the child dies.

"Parents are under a legal duty to provide food, clothing, shelter, and medical care for their children to the extent of their means and ability," he explains.

"This duty is imposed on parents without regard for their own personal beliefs. The state has an interest in seeing that at least minimum safeguards are taken for the health and welfare of minor children.

"Under the laws of most states, it's possible for a child to be made a ward of probate or juvenile court when his parents refuse to authorize needed medical care.

"Removed from his parents' physical and legal control, the child can then receive needed care and treatment under orders of the court. In this way, through expeditious legal proceedings, blood transfusions and other necessary procedures can be carried out and the child's life saved.

"This is the paramount interest, so far as the legal system is concerned."

Adults enjoy somewhat broader legal rights, the University of Michigan professor points out. When his refusal to accept medical treatment does not endanger the lives or well-being of others, the individual may decline any help. He is allowed to preserve his religious integrity, even at the risk of death.

Only when vaccinations or other types of treatment are imposed by law can the individual be compelled to accept them. The fact that some public official believes it is in the public interest to have everyone inoculated against polio, for instance, is not sufficient to force individual compliance to his commands, unless they are based on law.

Rule Premiums Deductible

Premiums paid for "package" health insurance are fully tax deductible. The Third Circuit Court of Appeals of the United States in a recent decision ruled that in the case of an insurance policy that provided both for reimbursement for medical expenses and for benefit payments for loss of income or loss of life resulting from accident or sickness, the premiums were fully tax deductible.

The revenue service and the tax court long have contended that under the tax law only premium payments which provide coverage for medical care may be deducted as a medical expense. Hence, they argued, for a policy combining coverage for loss of life or income with medical reimbursement, only that part of the premium attributable to the medical benefits qualified as a medical deduction.

The appeal court disagreed. It said Congress had not intended to draw so fine a distinction between amounts paid for various types of health and accident protection, but sought rather to permit a deduction for such coverage in full.

—(Bulletin—Los Angeles County Medical Association)

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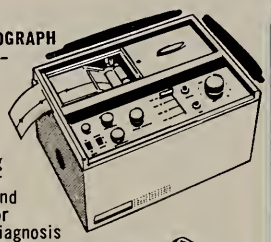

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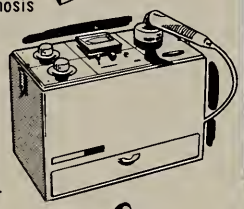

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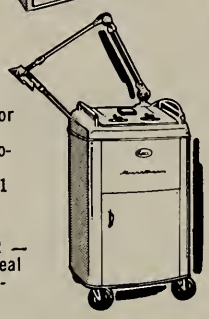

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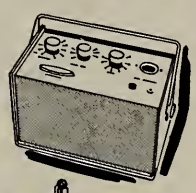

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Significant Tax Decision

U. S. Tax Court decision that a wife, though not a physician, may be recognized as a true partner in her husband's medical practice may find broad application. Cases are tried and decided on their merits, and the outcome of this one (Nichols vs. Internal Revenue) does not automatically extend this tax-advantage privilege to every such couple. But in cases where the wife is as essential to her husband's practice as was Mrs. Beulah Nichols, probability of these couples' qualifying for similar tax treatment would seem to be great, judging by crispness of this decision.

Following dissolution of a partnership with other radiologists in Seattle, Dr. Harold E. Nichols took his wife as a partner in April, 1953, with the approval of his accountant. Mrs. Nichols often worked seven days a week, handling billings, purchasing supplies, paying the bills, checking clinical reports and taking x-ray films home for her husband to read after illness in late 1953 curtailed his activities.

Dr. Nichols died in May, 1954. Internal Revenue Service subsequently held the partnership "a sham and invalid" in finding an income tax deficiency of $24,618 for the calendar year 1953. This decision was appealed by the widow, and the tax court has now held in her favor.

Autopsy Limitation

Dear Doctor:

I have your letter inquiring as to the permissible scope of a validly authorized post mortem examination.

I find no statutory provisions or adjudicated cases in Michigan which place any specific restrictions on the scope of an authorized autopsy.

It is my opinion, therefore, that in the absence of any specific restriction in the consent or permit, the physician performing the autopsy is authorized to conduct it in the usual and approved manner practised by the profession and to remove for examination and study such parts of the body as must be examined and studied in order to accomplish the purpose of the examination.

In short, if the consent or permit is without restriction as to the scope of the examination, I believe it is sufficient to authorize examination of the brain if such examination is consistent with the purpose of conducting the autopsy. If, of course, the examination of the brain is not consistent with the purpose for which the autopsy is being done or if the consent to autopsy specifically restricts its scope, such examination should not be done without specific consent.

It must always be kept in mind that the person who has the right to authorize a post mortem examination has the right to impose the limits within which it is performed, and if such limitations are imposed in the consent, such limitations must be observed.

I trust that the foregoing satisfactorily answers your inquiry.

Very truly yours,
LESTER P. DODD
Legal Counsel

(Turn to Page 150)

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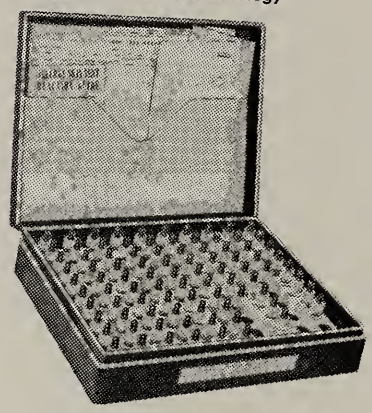

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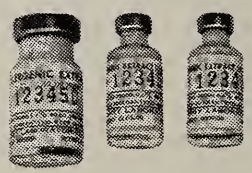

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(Continued from Page 148)

Rescission of Surgical Privilege

Dear Doctor:

I have your inquiry regarding the law in relation to actions for damages for slander or defamation in cases of rescission of surgical privileges in an accredited hospital.

Generally speaking, the elements of an action for defamation, which includes slander and libel, are (a) that the defendant has published or communicated to others statements which are false, (b) or of a defamatory nature, and (c) as to which no legal privilege existed. Generally, the truth of a claimed defamatory statement is a complete defense.

Applying these general principles to the situation arising from the recission of a doctor's surgical privileges, the first test would be to ascertain whether or not any statements were made, recorded or published which could be said to be defamatory. If not, it is difficult to see how any action could arise. If, in the handling of such a matter, any defamatory statements were made or necessarily implied, it would be necessary to test them both as to truth and good faith. If true, and made in good faith, it would seem that no action would arise.

There is also, I think, some degree of qualified privilege present in such a matter assuming, of course, that the rules, regulations and by-laws of the hospital and staff were strictly followed in whatever proceedings were taken. I think this latter is important both in relation to a possible action for defamation and as bearing on any right of action which the physician might have to reinstate his privileges. In short, if the rules, regulations and by-laws of the hospital and staff are followed strictly and if the action taken is in good faith and is not tinctured by personal considerations or other outside influences, no legitimate cause of action could be expected to occur.

There are no statutory provisions in Michigan bearing on this subject nor, so far as I have been able to learn, any adjudicated cases in Michigan on the subject. Cases embodying these principles have occurred in other states, however, and I believe the foregoing is in accord with the general weight of authority.

Sincerely yours,
LESTER P. DODD
Legal Counsel

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Offers 103 Scholarships

THE NATIONAL FOUNDATION.—Health Scholarship Program, now entering its second year, will offer 103 health scholarships for four years of study at fully-accredited schools of medicine. To be eligible, a student must be currently enrolled as an undergraduate at an accredited college and must be accepted for admission to medical school for the fall of 1960 by the applications deadline of April 1, 1960. The only obligation of Health Scholarship winners is to have the intention of completing their education and of serving the health field as a member of their chosen profession.

Information about the program may be obtained from the National Foundation Health Scholarships, 800 Second Avenue, New York 17, New York.

MEDICAL PSYCHOLOGY.—Monsignor Arthur F. Bukowski, president of Aquinas College, Grand Rapids, announces that John Ignatius Nurnberger, M.D., of Indiana University, will deliver the Aquinas College Lectures in Medical Psychology for 1960, Wednesday, February 24.

Doctor Nurnberger, chairman in the department of psychiatry of the Indiana University School of Medicine and director of the University's Institute of Psychiatric Research, will speak in the afternoon and again in the evening. A dinner in the college dining room will be served between the two lectures.

Dr. Nurnberger's afternoon lecture will be entitled "Sex and Psychotherapy: A Clarification," and the evening lecture will be on "The Major Manifestations of Mental and Emotional Disorders: A Guide to Rapid Appraisal."

All MSMS members are invited to these lectures.

LAWRENCE REYNOLDS, M.D., HONORED.—On February 5, at the Roosevelt Hotel in New York, the Gold Medal of the American College of Radiology will be bestowed on Dr. Lawrence Reynolds, Detroit, by unanimous action taken by the Board of Chancellors in recognition of "distinguished and extraordinary service to the American College of Radiology and the profession for which it stands." Dr. Reynolds has received the honorary degrees of Doctor of Laws, from the University of Alabama (1949) and the Wayne State University (1956). He is an honorary member of the Radiologic Societies of Germany, Italy and Columbia. He is Pancoast Lecturer (1942), Caldwell Lecturer (1944), Hickey Lecturer (1954), Past President of the American Roentgen Ray Society (1948), Gold Medalist of the Radiological Society of North America (1956) and now President of the American College of Radiology.

Contributions for this "News Briefs" department are invited from individual physicians, from county societies, and from other health organizations. Please direct your contributions to the Editor.

NEW ORGANIZATION.—William L. Bedwell, M.D., Detroit, is the president of the newly organized Detroit Society for Psychoanalytic Study. The organization of Wayne-Oakland area psychiatrists will study psychoanalytic theory and its usefulness for the technique of psychotherapy. Other officers are Bella M. Rabinovitch, M.D., Detroit, vice president; Clinton J. Mumby, M.D., Pontiac, secretary, and Norman R. Schakne, M.D., Pontiac, treasurer.

SELECT EXECUTIVE.—Lawrence J. Linck is the new executive vice president of the National Association for Mental Health, which has 800 state and local affiliates. The NAMH business address is 10 Columbus Circle, New York 17, New York.

DONORS NEEDED.—"Lack of adequate supply of blood of all types from local donors may soon become a limiting factor in carrying out heart surgery," states William W. Coon, M.D., University of Michigan assistant professor of surgery.

Growing demands for blood in modern surgical care have caused the U-M Medical Center to issue a strong appeal for professional donors. Patients at University Hospital use about 850 pints of blood each month, while the professional donor list totals only 500 people. Doctor Coon reports they must double or triple the present list as quickly as possible.

In addition to heart cases, other large individual users at U-M are persons having severe burns, internal bleeding, and brain operations.

DEDICATE WAYNE BUILDING.—Dedication of Wayne State University's new Cohn Memorial Building took place Wednesday, November 18. The Cohn Memorial Building will house the College of Nursing, the division of graduate instruction and research, and also the School of Social Work.

The Cohn Foundation provided one of the two grants through which the building was made possible; the other came from the Greater Detroit Hospital Fund.

FOSTER COOPERATION.—A top-level liaison committee has been formed between the American Medical Association and the American Nurses' Association to explore matters of mutual concern in the interest of improved health care.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY.— The next scheduled examinations (Part II), oral and clinical, for all candidates, will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from April 11 through 16, 1960. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates. Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as

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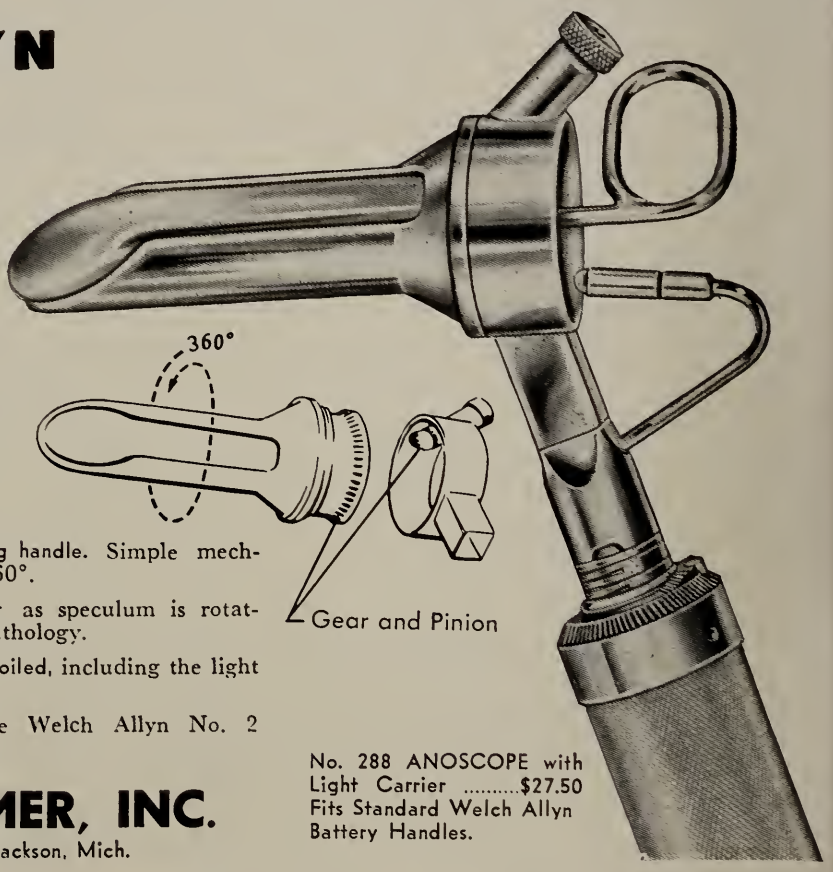

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RETIRED AS REAR ADMIRAL.—Herman D. Scarney, M.D., chief of staff of William Beaumont Hospital, Royal Oak, has been placed on the retired list of the United States Navy Reserve with the rank of Rear Admiral.

H. D. Scarney, M. D.

Admiral Scarney completed over thirty years of service in the United States Navy and was active in the aviation arm of the Navy during World War II. His active duty included senior medical officer and chief flight surgeon at the Naval Air Station, Grosse Ile, and as senior medical officer and chief flight surgeon aboard the Aircraft Carrier *U.S.S. Cabot.* A member of the Wayne County Medical Society, Admiral Scarney is a past president of the Detroit Ophthalmological Society, and is affiliated with numerous other medical organizations.

TO GIVE ADDRESS.—Jerome W. Conn, M.D., Ann Arbor, will speak at the eighth postgraduate course in Diabetes and Basic Metabolic Problems, Los Angeles, January 20-21-22. He will discuss "Newer Diagnostic Methods in Diabetes."

REPORTS ON STUDY.—C. Thomas Flotte, M.D., University of Michigan Medical Center, reports, "We have learned from mummies that diseases of 3,000 years ago are essentially the same ones that are present today."

He cites an archaeologists's discovery of a mummy with a kidney abscess. Material from the abscess was taken to a laboratory "and the scientists were able to culture the same type of organism that will cause kidney infections at the present time."

STUDIES IMMUNIZATION.—The National Institutes of Health in Washington awarded V. K. Volk, M.D., Saginaw, a two-year grant in the amount of $49,772.00 or $24,886.00 per year, to carry on a study of immunization of infants against diphtheria, whooping cough, tetanus, and poliomyelitis. This study will be carried out in cooperation with the Michigan Department of Health, the School of Public Health, University of Michigan and Saginaw physicians.

The purpose of the study is to acquire a greater knowledge on the best method of immunization of infants against these diseases.

CONFERENCE LEADER.—William J. Burns, MSMS Executive Director, recently served as chairman of a general session and also moderator of a panel for the Professional Association Executives Division at the annual meeting of the American Society of Association Executives.

TALKS AT DETROIT.—Lewis Cohen, M.D., Detroit, presented an exhibit and a paper entitled "Electrovasography: Quantitative Diagnosis of Vascular Disorders" at the annual meeting of the Gerontological Society in Detroit, November 12 to 14, 1959.

INVITE APPLICANTS.—The University of Cincinnati Institute of Industrial Health offers graduate fellowships in industrial medicine. The Institute, a division in the College of Medicine, provides professional training for graduates of approved medical schools who have completed at least one year of internship. Requests for information should be addressed to: Secretary, Institute of Industrial Health, College of Medicine, Eden and Bethesda Avenues, Cincinnati 19, Ohio.

JOHN ALEXANDER LECTURE.—The third Annual John Alexander lecture was given at the University of Michigan Medical Center, November 12 by Michael E. DeBakey, M.D., chairman of the Department of Surgery, Baylor University College of Medicine, Houston, Texas.

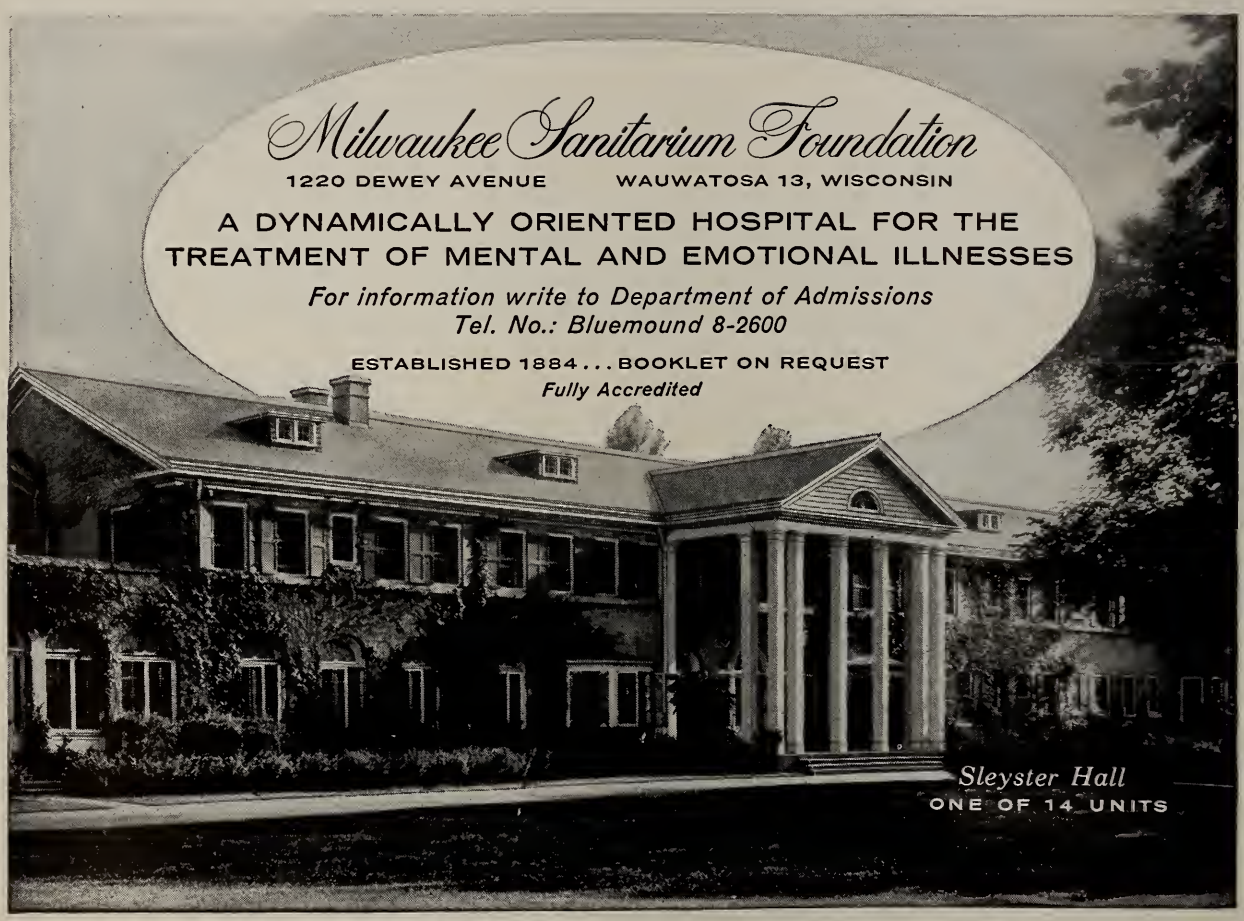
The lectureship was established by the John Alexander Society in 1957 as a memorial to the former chief of thoracic surgery at the U-M. The Society—doctors who have trained in thoracic surgery under Dr. Alexander and his successor—invite a distinguished surgeon to present the lecture each year.

RECEIVES HONORS.—J. P. Gray, M.D., Detroit, was awarded the American Medical Writers Association Distinguished Service Award at the AMWA's 16th annual meeting in St. Louis.

Doctor Gray, one of six honored at the convention, was cited for "unusual and distinguished service to the medical profession."

MATERNITY REPORT.—According to a survey of group surgical insurance claims, the Health Insurance Institute reports that 87.5 per cent of the maternity claims were for normal deliveries and 3.9 per cent for cesarean sections. The survey also showed that 8.1 per cent ended unsuccessfully in miscarriages and the remainder were extrauterine pregnancies. The Institute report was based on a 1957 survey by the Society of Actuaries of more than 118,000 group surgical insurance claims.

GETS NATIONAL POST.—Edward C. Rosenow, Jr., M.D., Los Angeles, has been named executive director of the American College of Physicians. He will succeed Edward R. Loveland, who retired December 31, 1959, after thirty-four years as the executive secretary. Doctor Rosenow has been on the faculty of the University of Southern California School of Medicine, and has been the executive director of the Los Angeles County Medical Association since 1957. His varied activities have included editor of *Audio-*



Digest since its inception in 1954, and past president of the Los Angeles County Medical Association.

PRESENTS TALKS.—M. K. Newman, M.D., Detroit, participated in the following conferences and gave the following talks: (1) "Rehabilitation Requirements in Terms of Workmen's Compensation Laws," at a combined conference of the National Rehabilitation Association and the Group Health Association, Washington, D. C., October 9; (2) "Diagnosis and Management of Circulatory Impairment of the Lower Extremities," before the State Meeting of the Michigan Chiropody Society, Statler-Hilton Hotel, October 31; (3) "Current Aspects of Rehabilitation in Chronic Illness and Disability," before the Oakland County Department of Health, Pontiac, on October 23; and (4) "A Community Approach to Rehabilitation" before the Michigan Welfare League, Grand Rapids, November 4.

GOLDEN JUBILEE.—The 50th anniversary of American Red Cross First Aid Service will be observed throughout 1960 and with special emphasis at the national convention in Kansas City next May. The Service was officially inaugurated by Red Cross January 1, 1910, during which year the first textbook on first aid was published. Since that time, the Red Cross is the only organization to offer continually a nationwide first aid training program. Since 1910, some 21,000,000 certificates for Red Cross first aid training have been granted. Certificates of Merit for saving lives have been issued to 2,200 persons during the past seventeen years. Countless other lives have been spared by this vital Red Cross program.

SPEAKS IN GUATEMALA.—H. Marvin Pollard, M.D., Ann Arbor, gave two talks at the National Medical Congress of Guatemala, November 25 to 27 at Guatemala City. Doctor Pollard also visited the Nutrition Hospital in Mexico City during his trip.

BOOST PENBERTHY FUND.—The Wayne State University Board of Governors at its November meeting accepted a gift of $7,713.21 from the estate of the late William A. Spitzley, M.D., for the Grover C. Penberthy Research Fund in the College of Medicine.

BIG BUSINESS.—In the fourteen-year period since the end of World War II, the National Library of Medicine has had 172,360 volumes bound in outside binderies, and has bound, mended or repaired 77,068 additional volumes in its own shop, for a total of a quarter of a million volumes, or almost fifty for every calendar day during the period.

HONOR U-M ALUMUS.—Among four University of Michigan alumni who received Outstanding Achievement Awards Saturday night, November 21, was Charles W. Shilling, M.D., deputy director of the Division of Biology and Medicine of the Atomic Energy Commission, Washington, D. C. Doctor Schilling was born Sept. 21, 1901 at Upland, Indiana, and he joined the United States Navy Medical Corps immediately after receiving his M.D. degree in 1927. He retired from the Navy in 1955 to assume his present post with the Atomic Energy Commission.

OFFER ASSISTANCE.—Thirty scholarships providing tuition, room and board at the Midwest Institute of Alcohol Studies at Madison, June 13 to 17 and another fifteen scholarships to the Yale School of Alcohol Studies, June 26 to July 22, will be granted by the Michigan State Board of Alcoholism. Applications may be requested from Ralph Daniel, director, State Board of Alcoholism, 230 N. Grand, Lansing.

PRICE REDUCTION.—The Upjohn Company has announced a reduction in the price of its oral antidiabetic agent Orinase. The reduction, which is effective immediately, should result in a saving to patients of approximately 50 cents a bottle, or a cent a tablet.

MEDICALLY IMPORTANT MOSQUITOES.—"Mosquitoes of Medical Importance," by Richard R. Foote and David R. Cook, a handbook, will enable both military and civilian entomologists, especially those concerned with public health, to identify mosquitoes in any part of the world. Copies of "Mosquitoes of Medical Importance" may be obtained without charge from the Entomology Research Division, Agricultural Research Service, U. S. Department of Agriculture, Washington 25, D. C.

YAMASAKI HONORED.—Minoru Yamasaki, architect who designed the new Michigan State Medical Society building, was awarded the 1959 Gold Medal of the Detroit Chapter, American Institute of Architects.

COMING MEETINGS

The Industrial Medical Association will hold its forty-fifth annual convention in the new War Memorial Auditorium, Rochester, New York, April 26-28, 1960.

The sixty-seventh Annual Conference of the Association of Military Surgeons will be held at the Mayflower Hotel, Washington, D. C., October 31, November 1 and 2, 1960.

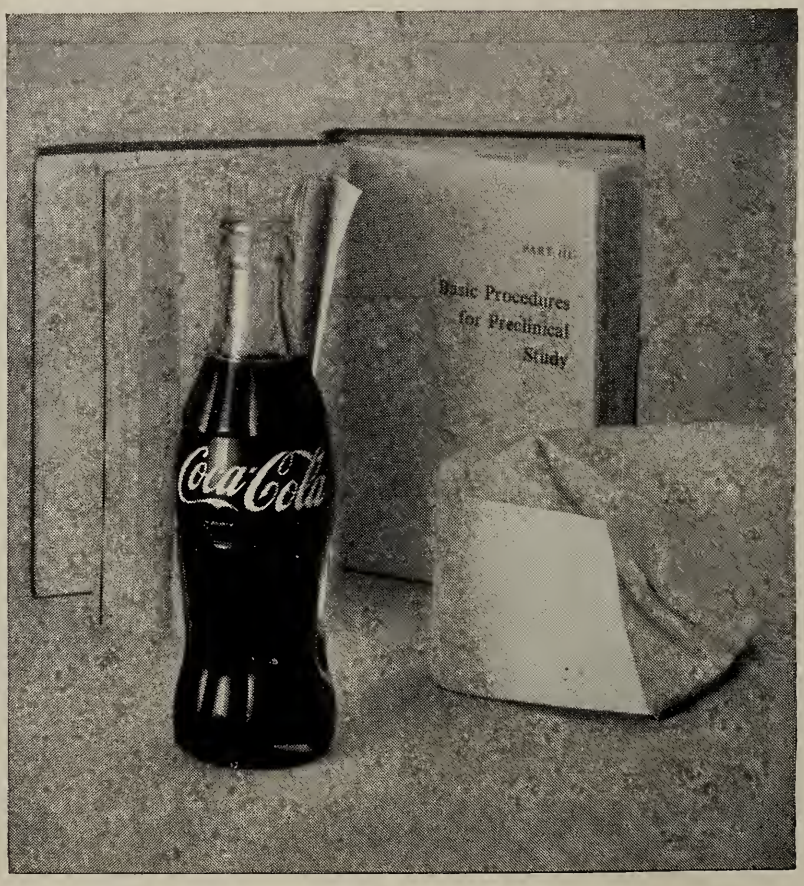
The American Otorhinologic Society for Plastic Surgery will meet at Miami Beach, March 6 to 13, 1960.

The American College of Surgeons will conduct a four-day Session for Surgeons and Nurses in Boston, February 29, March 1, 2, 3, 1960.

The American College of Radiology will hold its annual session in New Orleans, Louisiana, February 3 to 6, 1960.

The American Radiation Society will meet in San Juan, Puerto Rico, March 17 to 19, 1960.

The Third International Congress of Physical Medicine will be held August 21 to 26, 1960, inclusive, at The Mayflower, Washington, D. C. For information write: Dorothea C. Augustin, Executive Secretary, Third International Congress of Physical Medicine, 30 N. Michigan Avenue, Chicago 2. Illinois.



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DRUG FIRMS WIN.—Five major drug firms have been acquitted of charges that they rigged the price of Salk anti-polio vaccine. The companies hailed the decision as "vindication" and "exoneration."

Federal Judge Phillip Forman ruled yesterday that the government had not shown a definite conspiracy through its evidence, and he saw no reason to let the case go on to add the defense testimony. He granted defense motions for directed verdicts of acquittal after a two hour and forty-five minute summary of the evidence. The jury had been exused. Thus the all-male jury, which had sat through five weeks of prosecution arguments and testimony, never heard the end of the case.

Lewis Bernstein, the government's prosecuting attorney, said the dismissal cannot be appealed since the charges were criminal in nature. The companies could have been fined $200,000 each if found guilty.

Acquitted were Eli Lilly & Co., Indianapolis, Indiana; Parke-Davis company, Detroit; Wyeth Laboratories of American Home Products corporation, New York; Pitman-Moore division, Allied Laboratories, Kansas City, Missouri; and Merck Sharp & Dohme Division, Merck, Inc., Rahway, New Jersey.

The government contended the companies had a hold-the-line agreement on prices to federal and state agencies. They sold $53,000,000 in vaccine to the U.S. government from 1955 through 1957, and, generally, bids on contracts were identical.—*Lansing State Journal*, Dec. 1, 1959.

MITRAL AND AORTIC STENOSIS

(Continued from Page 103)

they have reached the point of actual failure, a satisfactory degree of correction can be accomplished without an unacceptable risk. On the other hand, if these patients are presented for operation only after they have experienced bouts of severe failure, the risk is high owing to the fact that the ventricle is exhausted and the changes in the aortic valve are so extensive that simple commissurotomy (either by open or closed methods) does not produce a degree of functional correction which is satisfactory. In our own practice, we have developed a technique of increasing the coronary artery flow and maintaining the central blood pressure just before and during transventricular aortic valvulotomy. This technique consists in construction of the descending aorta to maintain the proximal pressure. This has materially reduced the incidence of ventricular arrythmias during the operation.

An ideal not yet attained, but entirely feasible, with the modern pump oxygenators is that one day we will be able to remove the aortic valve *in toto* and replace it with a dependable prosthesis.

IN MEMORIAM

GEORGE H. BAERT, M.D., eighty-nine, Grand Rapids physician for sixty-one years, died November 5, 1959.

Doctor Baert was born in Zeeland. He was graduated from Hope College in 1888 and received a degree in pharmaceutical chemistry from the University of Michigan in 1890. After a year at Purdue University as a chemistry teacher, he entered the University of Pennsylvania Medical School in 1891 and was graduated in 1893.

He opened practice the same year in the Kendall Professional Building, Grand Rapids, where he maintained offices until his retirement. In his early years of practice he served as pathologist at Blodgett Memorial Hospital.

He was a member of the East Congregational Church, York Lodge No. 410 F.&A.M. and DeWitt Clinton Consistory and for many years was active in area art groups as an oil painter.

In 1947, Doctor Baert was the recipient of an MSMS Fifty-Year Award, an honor for having practiced medicine for half a century.

JOHN D. McKINNON, M.D., eighty, Highland Park physician for thirty-eight years, died November 6, 1959.

Doctor McKinnon was graduated from the University of Michigan Medical School in 1908, and had practiced in Calumet before moving to Highland Park.

A former head of the obstetrics department at Highland Park General, he was a member of Calumet Lodge No. 271, F.&A.M., Calumet Chapter 153, Royal Arch Masons and Montrose Commandery 38, Knights Templar.

OLIN EARL PARMELEE, M.D., eighty-five, Lambertville community doctor for over fifty years, died October 21, 1959.

Born on a farm near Hillsdale, Doctor Parmelee worked as a farm hand and on a railroad as a young man and later became a bellboy in a Chicago hotel.

His early interest in the medical profession prompted him to become a male nurse in a Chicago hospital before he enrolled in Harvey College at Chicago.

Graduating from the University of Illinois Medical School in 1905, he interned at a Chicago hospital and in 1906 set up his practice in Lambertville.

He was a member of the Methodist church, IOOF and various Masonic orders.

PHILLIP H. PAYE, M.D., fifty, chief of radiology at Cadillac's Mercy Hospital and Manistee Community Hospital, died November 6, 1959.

A native of Grosse Pointe, Doctor Paye was a graduate of the University of Detroit High School and St. Louis University College of Medicine. He took advanced training at the Detroit Memorial Hospital and later joined the United States Public Health Service at Washington, D. C.

He served in the Army medical corps in World War II, advancing to the rank of lientenant colonel in charge of x-ray and pathology at the Wichita, Kansas, veterans administration hospital.

Doctor Paye was a member of St. Ann's Catholic church, Cadillac, the Elks club, the American Radiological society and was a director of Dirkes Industries of Detroit.

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Medical Authors

F. BRUCE FRALICK, M.D., Ann Arbor, is the author of an article entitled "Surgical Anatomy, Physiology, and the Three Main Operative Approaches," a part of a symposium: Ptosis Complications, which was presented as a special program of the Committee on Reconstructive Plastic Surgery: Ophthalmology at the Sixty-third Annual Session of the American Academy of Ophthalmology and Otolaryngology, October 12 to 17, 1958, Chicago, and published in *Transactions*, American Academy of Ophthalmology and Otolaryngology, September-October, 1959.

ARAN S. JOHNSON, M.D., Detroit, is the author of an article entitled "Surgery in Acquired and Congenital Coronary Insufficiency," published in *Clinical Medicine*, October, 1959.

Z. E. TAHERI, M.D., F.A.C.S., F.I.C.S., D.A.B., Bay City, is the author of an article entitled "Urevert in Cranial Trauma and Brain Surgery," published in *the Journal of the International College of Surgeons*, October, 1959.

CLARENCE E. RUPE, M.D., and STEWART N. NICKEL, M.D., Detroit, are the authors of an article entitled "New Clinical Concept of Systemic Lupus Erythematosus," published in the *Journal of the American Medical Association*, October 24, 1959.

EARL J. HALLIGAN, M.D., Jersey City, New Jersey, and FOUAD A. RABIAH, M.D., Highland Park, are the authors of an article entitled "Primary Idiopathic Segmental Infarction of the Greater Omentum," published in *A.M.A. Archives of Surgery*, November, 1959.

JEROME POLLACK, M.D., Detroit, is the author of an article entitled "Opinion Survey and Relative Value Study," published in the June issue of the *Journal of the Michigan State Medical Society*, and reprinted in *Connecticut Medicine*, October, 1959.

JOHN W. HENDERSON, M.D., Ann Arbor, is the author of an article entitled "Neuro-Ophthalmology," published in *A.M.A. Archives of Surgery*, November, 1959.

HAROLD F. FALLS, M.D., Ann Arbor, is the author of an article entitled "Manifestations of the Chronic Renal Tubular Insufficiency Symptoms," in *A.M.A. Archives of Ophthalmology*, August, 1959.

C. B. ROLAND, M.D., Lansing, is the author of an original article, "Pheochromocytoma in Pregnancy," which appeared in the *Journal of the American Medical Association*, November 28, 1959.

I. A. SCIME, M.D., and E. J. TALLANT, M.D., Detroit, are authors of an original article, "Tetanus-Like Reactions to Prochlorperazine (Compazine)," which appeared in the *Journal of the American Medical Association*, November 28, 1959.

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JOHN G. REID, M.D., is the author of an article entitled "Osteochondritis Desiccans," presented before the Detroit Academy of Medicine, December, 1958, and published in *Harper Hospital Bulletin*, September-October, 1959.

C. C. HERRINGTON, M.D., and C. R. REINERS, M.D., Detroit, are the authors of an article entitled "The Management of Bile Duct Strictures," published in *Harper Hospital Bulletin*, September-October, 1959.

HUBERT U. WAGGENER, M.D., JAMES P. MULDOON, M.D., and J. RICHARD HEATON, M.D., Grand Rapids, are the authors of an article entitled "Asymptomatic Tuberculous Enteritis Simulating Carcinoma of the Cecum," published in the *Journal of the American Medical Association*, November 7, 1959.

B. F. MC CABE, M.D., and MERELE LAWRENCE, Ph.D., Ann Arbor, are authors of an article entitled "Inner-Ear Mechanics and Deafness," published in the *Journal of the American Medical Association*, December 5, 1959.

R. A. STRAFFON, M.D., and A. J. COPPRIDGE, M.D., Ann Arbor, are authors of an article entitled "Respiratory Paralysis and Severe Potassium Depletion after Ureterosigmoidostomy," published in the *Journal of the American Medical Association*, September 12, 1959.

JOHN M. HAMMER, M.D., PATRICK H. SEAY, Ph.D., RICHARD L. JOHNSTON, D.V.M., Kalamazoo, EDWARD J. HILL, M.D., FRANK H. PRUST, M.D., and RUTH J. CAMPBELL, Detroit, are the authors of an article entitled "The Effect of Antiperistaltic Bowel Segments on Intestinal Emptying Time," presented at the seventh annual meeting of the Michigan Chapter of the American College of Surgeons, Detroit, March 10, 1959, and published in *AMA Archives of Surgery*, October, 1959.

GEORGE L. WALDBOTT, M.D., Detroit, is the author of an article entitled "'Constitutional' Allergic Reactions and Their Prevention," published in the *Journal of the American Medical Association*, October 31, 1959.

J. MARTIN MILLER, M.D., ROBERT C. HORN, M.D., and MELVIN A. BLOCK, M.D., Detroit, are the authors of an article entitled "The Increasing Incidence of Carcinoma of the Thyroid in a Surgical Practice," published in the *Journal of the American Medical Association*, October 31, 1959.

Z. STEPHEN BOHN, M.D., Detroit, is the author of an article entitled "Morbid Changes in Mental Deficiency, the Experience of 28 Years with a Large Colony for the Mentally Defective," published in *Harper Hospital Bulletin*, September-October, 1959.

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The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

NUTRITION AND ATHEROSCLEROSIS. By Louis N. Katz, M.D., Director, Cardiovascular Department, Medical Research Institute Michael Reese Hospital; and Professorial Lecturer in Physiology, University of Chicago, Chicago, Illinois. Jeremiah Stamler, M.D. Previously Assistant Director, Cardiovascular Department, Medical Research Institute, Michael Reese Hospital, Chicago, Illinois, and Established Investigator of the American Heart Association; Presently Director, Heart Disease Control Program, Chicago; Board of Health, Chicago, Illinois. Ruth Pick, M.D., Assistant Director, Cardiovascular Department, Medical Research Institute, Michael Reese Hospital, Chicago, Illinois, and Established Investigator of the American Heart Association. 67 Illustrations. Philadelphia: Lea & Febiger, 1958. Price, $5.00.

This small book of something over 100 pages is a concise review of the literature pertaining to the rapidly moving field of research in atherosclerosis, particularly emphasizing the relation of the disease to nutrition. Data from personal studies of one of the authors is also presented. Although other endogenous factors in the development of atherosclerosis are carefully evaluated, diet assumes the key role in this dissertation.

Various proposed prophylactic and therapeutic regimens are critically reviewed in the light of the research of the last ten years. The author presents an interim approach to this as yet unsettled question of the best means of prevention and management with specific practical recommendations. An extensive bibliography of the literature particularly since 1953 is included, together with many illustrative charts and graphs.

It is recommended reading for the cardiologist, the internist, nutrition experts, and the well informed general practitioner of medicine as well as the young physician approaching the "dangerous age" with a thought to his personal welfare.

R.W.B.

SYNOPSIS OF OPHTHALMOLOGY. By William H. Havener, B.A., M.D., M.S. (Ophth.) Professor and Chairman, Department of Ophthalmology, Ohio State University; Member of Attending Staff, University Hospital, Columbus, Ohio; Consultant, Veterans Hospital, Dayton, Ohio; Member of Consulting Staff, Children's Hospital and Mount Carmel Hospital, Columbus, Ohio. 189 illustrations. St. Louis: The C. V. Mosby Company, 1959. Price, $6.75.

Havener's Synopsis of Ophthalmology is exactly what the title implies, but it is the most complete synopsis one could ask for. The introductory parts give the equipment and facilities necessary for an ophthalmological office. The discussion and description of diseases are clear but short and are illustrated with well-selected pictures sufficiently large to illustrate the subject. It is pocket size with round corners—a very handy reference book. It will be useful to students, both in general medicine and in ophthalmology.

CLINICAL ORTHOPAEDICS. By Anthony F. DePalma, Editor-in-Chief, with the assistance of the Associate Editors, the Board of Advisory Editors, and the Board of Corresponding Editors. Number 14, Summer, 1959. Albert B. Ferguson, Jr., Guest Editor. Philadelphia and Montreal: J. B. Lippincott Company, 1959. Price $7.50.

This volume, like the earlier ones, is divided into a lead section dealing with a given subject or area of discussion, a second section on items of general orthopedic interest, and a final section on scattered subjects, often involving uncommon, but annoying, problems.

The first section, involving recent advances in orthopedic surgery in infancy and childhood, in itself makes the modest price of the book worthwhile. In particular, the article on juvenile amputees by Drs. Frantz and Aitken is "must" reading for those not already familiar with their stature in this field.

The general section has two particularly good reviews, one of the role of surgical procedures in the treatment of arthritis, and the other an excellent discussion of the painful coccyx.

The last section presents no pearls this time, but the lead section, as always, continues to make this volume a highly desirable addition to its predecessors in the series.

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DIAGNOSIS AND TREATMENT OF MENSTRUAL DISORDERS AND STERILITY. Fourth Edition. By S. Leon Isreal, M.D., Professor of Gynecology and Obstetrics, Graduate School of Medicine, University of Pennsylvania; Chief Gynecologist, Graduate Hospital; Gynecologist and Obstetrician, Pennsylvania Hospital, Philadelphia. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 1959. Price, $15.00.

This volume contains the completely rewritten material of the previous three volumes with the addition of three new chapters dealing with the role of androgens, thyroid and adrenal cortex in menstrual disorders.

The problems arising in everyday practice are emphasized and discussed from the clinician's point of view. At the end of each chapter, there is an excellent list of references for those who want more detail.

One of the highlights of this book is the discussion of sterility. It includes not only the female factors but the male factors as well.

This book is very detailed and introduces many new concepts. The chapters on recurrent abortion and artificial insemination are up to date and all-inclusive. This book is very well written and is of special value to the busy clinician as well as to the student.

J.R.P.

THE CIBA COLLECTION OF MEDICAL ILLUSTRATIONS. Volume 3. A Compilation of Paintings on the Normal and Pathologic Anatomy of the DIGESTIVE SYSTEM. Part I. Upper Digestive Tract. Prepared by Frank H. Netter, M.D. Edited by Ernst Oppenheimer, M.D. Commissioned and published by CIBA, 1959. Price, $12.50.

Part I of Volume 3 is concerned with the Digestive System. It is a magnificent anatomical exposition of the digestive tract. Its many pages include color pictures with extremely fine detail including the anatomy of the mouth and pharynx, teeth, tongue, glands. It also includes anatomy of the esophagus, stomach, duodenum, functional and diagnostic aspects of the upper digestive tract, diseases of the mouth and pharynx, the esophagus, and diseases of the stomach and duodenum. These pictures give the anatomy of the muscles, the arteries, the veins, the nerves, the lymphatic system including also, where applicable, microscopic sections showing the various areas. There are 172 full color plates. The descriptions are clear and lucid. The reviewer is greatly pleased with the book, which compares well with its predecessors.

SYNOPSIS OF GYNECOLOGY. Fifth Edition. By Robert James Crossen, M.D., Associate Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine, St. Louis, Mo.; Daniel Winston Beacham, M.D., Assistant Professor of Clinical Obstetrics and Gynecology, Tulane University School of Medicine, New Orleans, La.; Woodard Davis Beacham, M.D., Professor of Clinical Obstetrics and Gynecology, Tulane University School of Medicine, New Orleans, La. St. Louis: C. V. Mosby Company, 1959. Price, $6.50.

This hand book is one of the most complete synopsis of the subject of Gynecology written today. It is an important supplement to the standard texts.

The chapter on gynecologic examination and diagnosis is outstanding because of its comprehensive text and excellent accompanying charts and diagrams.

This edition is completely rewritten and new chapters have been added—one on endometriosis and one on the complications of pregnancy. Other subject material has been reorganized and brought up to date. Laboratory work and associated clinical findings are correlated with the history for the purpose of diagnosis.

This book is of great value to all practitioners in all fields of medicine.

J.R.P.

BOOKS RECEIVED

THE FAMILY MEDICAL ENCYCLOPEDIA. By Justus J. Schifferes, Ph.D. Illustrated by Louise Bush, Ph.D. A Health Education Council Book. Boston and Toronto: Little, Brown & Co., 1959. Price, $4.95.

BONE TUMORS. By Louis Lichtenstein, M.D., Chief Pathologist, General Medical and Surgical Hospital, Veterans Administration Center, Los Angeles; Fellow, New York Academy of Medicine; Professor Extraordinario, National University of Mexico; Consultant in Bone Tumors, Tumor Tissue Registry of California Medical Association Cancer Commission; Consultant in Pathology, Los Angeles County Hospital; Consultant, City of Hope Medical Center. 220 illustrations. Second edition. St. Louis: The C. V. Mosby Company, 1959. Price, $12.00.

Say you saw it in the Journal of the Michigan State Medical Society

PATIENT CARE AND SPECIAL PROCEDURE IN X-RAY TECHNOLOGY. By Carol Hocking Vennes, R.N., B.S., formerly Surgical Supervisor and Clinical Instructor, University of Minnesota Hospitals, Minneapolis, Minnesota, and John C. Watson, R.T., Director of Courses in X-Ray Technology, University of Minnesota Hospitals, Minneapolis, Minnesota. Illustrated. St. Louis: The C. V. Mosby Company, 1959. Price, $5.75.

THE TREATMENT OF DIABETES MELLITUS. Tenth edition, revised. By Elliott P. Joslin, Howard F. Root, Priscilla White, and Alexander Marble. Illustrated. Philadelphia: Lea & Febiger, 1959. Price, $16.50.

501 QUESTIONS AND ANSWERS IN ANATOMY. By Stanley D. Miroyiannis, B.S., M.A., Ph.D., F.A.A.A.S., F.I.A.S., Professor of Anatomy and Chairman of the Department, Still College. Formerly: Lecturer in Comparative History, Boston University; Professor of Vertebrate Anatomy and Chairman of the Department of Biology, Northeastern University; Professorial Lecturer in Mammalian Anatomy, Graduate School, Massachusetts College of Pharmacy; Professor of Gross Anatomy and Chairman of the Department, The New England Institute of Anatomy; Major, The Medical Service Corps, Staff and Faculty, 373rd General Hospital Unit; Lt. Colonel, Staff and Faculty 5904th Medical Department, 5904 School, USAR. Presently: Lt. Colonel, The Medical Service Corps, USAR; Professor of Human Gross Anatomy and Chairman of the Department, Still College, Des Moines, Iowa. With an introduction by Ernest V. Enzmann, Ph.D., Associate Professor of Histology and Embryology, Still College. New York, Washington, Hollywood: Vantage Press, 1959. Price, $5.00.

AMINO ACIDS AND PEPTIDES WITH ANTIMETABOLIC ACTIVITY. Symposium Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc. 28 illustrations. Boston: Little, Brown and Company, 1959. Price, $8.75.

THE PLASMA PROTEINS. Clinical Significance. By Paul G. Weil, B.A., M.D.C.M., M.Sc., Ph.D., Director, Transfusion Service and Assistant Physician, Royal Victoria Hospital; Lecturer in Medicine, McGill University; Consultant in Medicine, Queen Mary Veterans and Grace Dart Hospitals; Consultant in Transfusion, Queen Elizabeth and Royal Edward Laurentian Hospitals. Philadelphia and Montreal. J. B. Lippincott Company, 1959. Price, $3.50.

NUTRITION AND ATHEROSCLEROSIS. By Louis N. Katz, M.D., Director, Cardiovascular Department Medical Research Institute, Michael Reese Hospital; Professorial Lecturer in Physiology, University of Chicago; Chicago, Illinois. Jeremiah Stamler, M.D., previously Assistant Director, Cardiovascular Department, Medical Research Institute, Michael Reese Hospital, Chicago, Illinois, and Established Investigator of the American Heart Association; presently Director, Heart Disease Control Program, Chicago; Board of Health, Chicago, Illinois. Ruth Pick, M.D., Assistant Director, Cardiovascular Department, Medical Research Institute, Michael Reese Hospital, Chicago, Illinois, and Established Investigator of the American Heart Association. 67 illustrations. Philadelphia: Lea & Febiger, 1958. Price, $5.00.

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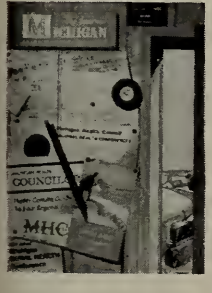

THE COVER

The homey, rural bulletin board interestingly describes many of the Michigan Health Council services. Another cover by Artist Dirk Gringhuis.

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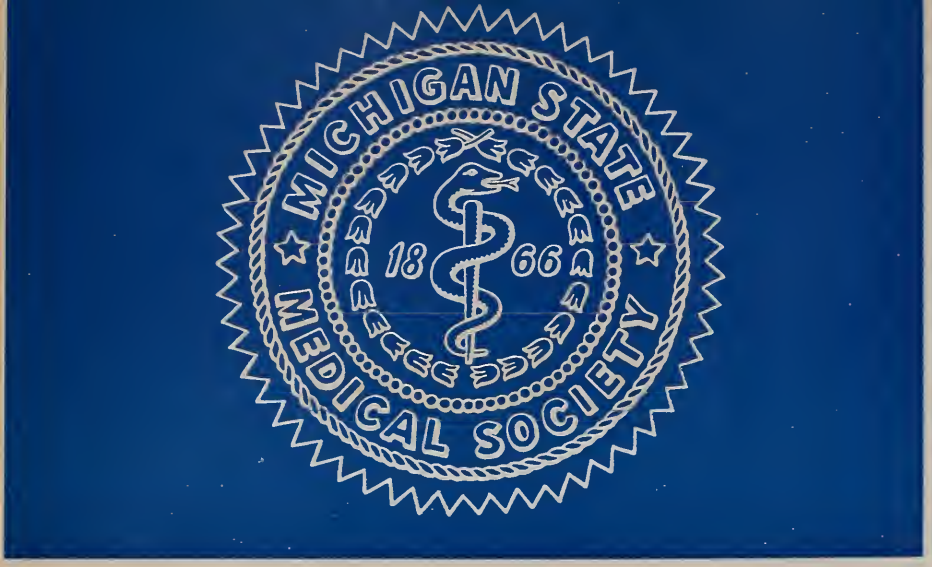

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DELEGATES TO A. M. A.

Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Creek	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

*To fill unexpired term of R. W. Shook, M.D., deceased.

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President's Page

THE BIG JOB

Milton A. Darling

President
Michigan State Medical Society

Michigan Medicine has long sought for ways and means to better serve the people of this state and nation. Its record is a proud one.

We recall the long list of famous "firsts" of which the MSMS very modestly boasted. These were projects or programs or organizations which originated in the minds and hearts of our confreres of yesteryear. They made our Society the envy of every other state society in the nation.

Each of these "firsts" treated a basic problem or an important segment of health activity or knowledge.

Yet, no single one of them ever "involved" the interest and service of *all* MSMS committees and members.

A new program has been begun which may do just that—demand the interest, cooperation and thinking of every committee, the zeal of every member.

This is called "The Presidential Program," probably for want of a better name. It's an intriguing project and the more you think about it the more interesting it becomes. It has a beginning and an end. It has a hard-to-reach, challenging goal. It offers opportunity for participation by every responsible organization in Michigan interested in health and promises much of value to every citizen.

I think you will want to read about this program in this number of your *Journal*. I know you will want to participate in this project. I am confident we have opportunity to do the BIG job.

MCI Offers Clinical TV

For two hours each day, doctors attending the Michigan Clinical Institute will see special teaching television programs, in color, emanating from Detroit's Harper Hospital. The programs, set for 10:30 a.m., March 9, 10, 11, will be carried over a closed circuit using the electronic equipment and TV cameras of Smith, Kline & French Laboratories.

The daily subjects are:

Wednesday—Surgery of the Skin and Subcutaneous tissues; Varicose Ulcers; and Hospital Care of a Surgical Wound.

Thursday—The Physical Signs of Congestive Heart Failure; The Diagnosis of Carotid Arterial Occlusion; Cardiac Arrest in the Operating Room; Glaucoma With Instruction in Tonometry; Common Ocular Fundus Findings; and Common External Eye Diseases.

Friday—Early Detection of Cervical Carcinoma; Cytologic Techniques; Prolapse Uteri; and Clinical Aspects of Aging.

E. A. Osius, M.D., Detroit, coordinator of the MCI Color Television committee, said, "This year the closed circuit telecasts again will emphasize the practical aspects of medical subjects discussed by the eminent 'teachers' drawn from throughout the state. All the material presented will be down-to-earth and applicable in daily practice."

Thirty-Day Deadline Applies Only to Care of Afflicted

Penalties on physicians treating crippled (but not afflicted) children have been eased somewhat by a recent ruling of the state Attorney General.

Until last year, the Crippled Children Commission had denied payment for care of either category if the physician's billing was submitted more than ninety days after the patient's discharge from the hospital. This deadline was changed to thirty days in the 1959 Session.

In December, the Attorney General held that this deadline did not apply to billings for care of crippled children. He pointed out that restrictive language in the crippled children law differed in meaning from that in the afflicted children law, and that the thirty-day limitation in the first instance was merely "directory."

In the afflicted care law however, the Commission still is specifically prohibited from paying bills that are submitted after the new thirty-day deadline.

HIGHLIGHTS of MSMS Council Meeting

Meeting of December 16, 1959

The full Council met in Detroit at the Wayne County Medical Society Building and in a seven-hour session considered 81 items. Chief in importance were:

- Review of actions of 1959 MSMS House of Delegates: The Speaker was authorized to transmit, in good order, to Michigan Medical Service all matters in the House of Delegates Proceedings pertinent to that organization, as soon as possible annually after receipt of the transcript.
- Reply from Michigan Hospital Service (Blue Cross) re Resolution No. 30 (itemization of Blue Cross-Blue Shield premium notices) was presented; also follow through by the Michigan Association of the Professions re resolution No. 39 (professional services for senior citizens). The Council referred to its County Societies Committee a recommendation that widows of MSMS members be permitted to carry on Michigan Medical Service contracts held by the MSMS group.
- Proposed Presidential Program (Five-Year Plan) was presented by Doctors Milton A. Darling, Detroit, and K. H. Johnson, Lansing. In essence the Presidents' Project provides for a program to advance the useful years of the people of Michigan by the application of existing health knowledge. Stress is to be laid on the *useful* years of life rather than on the mere extension of the life span. The Council approved the Presidential Program and requested all MSMS Committees to help implement the Program when it is completely drafted.
- President Darling presented a résumé on certain testimony presented before the McNamara Committee in Detroit on December 11, and the publicity accruing therefrom. The President's statement contained in a letter to Michigan Hospital Service was approved by The Council.
- Report of AMA House of Delegates (December 1959 Session in Dallas) was presented by Chairman W. A. Hyland, M.D., Grand Rapids.
- Speaker J. J. Lightbody, M.D., Detroit, announced the appointment of House of Delegates Committees, as authorized by the 1959 House.
- Resignation of Council Chairman. A. E. Schiller, M.D., Detroit, submitted his resignation as of January 1960 as Chairman of The Council, for health reasons, indicating he would be able to continue as Councilor for the First District. Doctor Schiller's resignation was acknowledged with deep regret and with an expression of high thanks for his contributions to Michigan Medicine.
- Relative Value Study Committee's questionnaire. Report from Chairman Luther R. Leader, M.D., Detroit, indicated that RVS questionnaires had been mailed to all MSMS members on November 27 and that returns to December 14 totaled 2,255.
- New Uniform Fee Schedule for Governmental Welfare Agencies has been distributed to all MSMS members, as per instruction of The Council.
- Editor Wilfrid Haughey, M.D., Battle Creek, reported on progress with the new format of THE JOURNAL: the January 1960 Number will be improved typographically in accordance with plans to help the reader find material more easily. News material will be divided into sections: Scientific, Editorial, State Society, Public Relations, Socio-economic, National and World, Ancillary and News Briefs. Other changes are in improved headlines, table of contents page and placement of advertising.
- Legal Counsel Lester P. Dodd, Detroit, presented opinions re (a) problems involved in utilization of practical nurses in administration of drugs and medication; and (b) liability of physicians who volunteer for emergency call service at local hospitals.

  Mr. Dodd reported he had advised the Liaison Committee with Health Insurance Council, which asked whether insurance companies may take up certain matters with county medical society mediation committees, that this is the only body of the county medical society that can hear outside representatives and that insurance companies and private individuals should have free access to the advice of these county society committees.
- The Public Relations Counsel presented a progress report on legislation; on revising film "To Save Your Life"; Michigan Association of the Professions membership which has reached 2,656 and on its "Congress of the Professions" to be held in Detroit January 23.
- Committees: (a) Reconsideration of Item 8 of the National Defense Committee minutes of October 21 meeting resulted in The Council approving cosponsorship of the proposed national defense symposium with the other groups indicated, to the extent of notifying component county societies of the meeting and urging them to send representatives.

  (b) Reconsideration of Items 9 and 10 of the October 29 minutes of the Maternal Health Committee: Item 9, having to do with survey of dental and x-ray examinations and the sending of a questionnaire, was approved provided the reporting physician's permission has been obtained. The Council felt it would be helpful to send the patient's letter to the doctor of medicine for forwarding to

the patient because with this advance knowledge, the physician could prevent any feeling on the part of the patient that the Federal Government was questioning the competency of the physician.

Item 10 (re polyvalent flu vaccination for pregnant women): The Council's action of November 18 in disapproving this item was sustained.

(c) Minutes of the joint meeting of Big Look and Finance Committees, meeting of December 13, were presented and approved.

(d) Appointments: 1. Katherine McMorrow, M.D., Mt. Clemens, was appointed to the Child Welfare Committee's Subcommittee on School Health; 2. George H. Lawrie, M.D., Ann Arbor, to the Child Welfare Committee; 3. D. Bruce Wiley, M.D., Utica, to the Liaison Committee with the Michigan State Board of Registration in Medicine; 4. Lester P. Dodd, J.D., was authorized to attend the AMA Law Conference in Chicago, May 20; 5. G. Thomas McKean, M.D., Detroit, and Messrs. Herbert A. Auer and Warren F. Tryloff of the executive office to attend the Blue Shield Professional Relations Conference in Chicago, February 1; 6. M. H. Seevers, M.D., Ann Arbor, to be the MSMS Delegate to the United States Pharmacopeial Convention in Washington, D. C., March 28; 7. Milton R. Weed, M.D., Detroit, as General Chairman of Arrangements for 1960 MSMS Annual Session; 8. Wm. M. LeFevre, M.D., Muskegon, as two-year Director and G. B. Saltonstall, M.D., Charlevoix, as one-year Director to the Michigan Association of the Professions; 9. Wm. Bromme, M.D., Detroit, as Chairman of the Committee to Arrange Conference of Residents-Interns-Senior Medical Students scheduled for March 10 during M.C.I. in Detroit; 10. George A. Zindler, M.D., Battle Creek, to the Liaison Committee with Health Insurance Council; 11. Merle A. Haanes, M.D., Pontiac, to the Medical Care Insurance Committee; 12. F. E. Luger, M.D., Saginaw, Chairman of 8th Councilor District Medical Care Insurance Committee; 13. J. W. Rice, M.D., Jackson, as Chairman and James W. Logie, M.D., Grand Rapids, as Vice-Chairman of the Medical Care Insurance Committee; 14. R. J. Mason, M.D., Birmingham, to the Michigan Clinical Institute Press Relations Committee.

Ralph H. Pino, M.D., Detroit, was nominated to the Governor for membership on the Michigan Social Welfare Commission.

The Council's Committee on Professional Liability was discontinued, in view of action of the 1959 House of Delegates in creating its own committee on this same subject.

Schedule of Meetings of MSMS Council for 1960

Monday, March 7	Sheraton-Cadillac Hotel, Detroit (before Michigan Clinical Institute)
Wednesday, April 13	Peninsular Club, Grand Rapids
Wednesday, May 18	Detroit Golf Club, Detroit
Wednesday, June 22	Country Club of Flint
Thursday and Friday, July 14-15	Grand Hotel, Mackinac Island
Wednesday, August 24	New MSMS building, East Lansing
Saturday and Sunday, September 24-25 and Thursday, September 29	New MSMS headquarters (Dedication on Sunday, September 25); second meeting, Sheraton-Cadillac Hotel, Detroit
Wednesday, November 16	New MSMS headquarters
Wednesday, December 14	Great Lakes Club, Detroit

New MSMS Headquarters Pre-cast Roof Vaults Erected in March

Although construction progress on the new headquarters continued steadily during December, almost none of it was visible at the building site.

William S. Jones, M.D., Menominee, chairman of the Big Look Committee, in his monthly building progress report to The Council explained, "In structures of traditional design, all construction is done at the building site, however, the newer methods used in the MSMS headquarters permits off-site construction of the entire roof, the endwalls, and front and rear supporting columns. These units are being precast of aggregate surface concrete in special workshops and will be transported to East Lansing when completed."

Support columns were scheduled for erection at the building site by February 25 and the roof vaults are to be in place by mid-March. At this point, the building exterior will be in near-final form as scaffolding is removed and glass walls are installed.

Doctor Jones said that the steel shortage was responsible for a slight delay in building progress. The current estimated completion date is July or August.

Salute Laboratory Animals

"It isn't often that man gives his 'best friend' the recognition so justly deserved," said Milton A. Darling, M.D., MSMS president, at the U-M Medical Center. William N. Hubbard, M.D., dean of the U-M Medical Schools, holds the dog who now wears the silver medal of "Research Dog Hero of 1959." Doctor Darling explained that "while this medal goes to Pansy alone, we recognize she is a symbol of laboratory animals throughout the nation."

Re-registration Fee

New legislation enacted in 1959 requires every M.D. to re-register annually with the Michigan State Board of Registration in Medicine. The Board is mailing applications to all physicians; the fee is $5.00. Although the law imposes an extra $5.00 penalty on registrations received after January 1 of each year, the Board is delaying this provision until March 1, due to its difficulty in obtaining I.B.M. and other processing materials.

Conduct Project in Upper Peninsula

The Chippewa-Mackinac County Medical Society conducted a diabetes testing program during the annual Diabetes Week. The testing center was established at the Sault Ste. Marie War Memorial Hospital. D. D. Finlayson, M.D., was chairman.

Changes Explained in Medicare

A comprehensive report about Medicare contract changes has been mailed to all MSMS members by the Michigan Medical Service. The mailing explained the certain areas of care which were restored, effective January 1, 1960, to the Dependents' Medical Care Program.

Society Conducts Diabetes Project

A diabetes detection project was conducted in Grand Haven during the annual Diabetes Week by the Ottawa County Medical Society with the cooperation of the Grand Haven Junior Chamber of Commerce. Also assisting, was the American Diabetes Association. Many junior chambers of commerce are active in the diabetes control project which is a public health project recommended by both the national and Michigan JCC organizations.

Patients Honor Macomb M.D.

Because he has been "a modern doctor with an old-fashioned interest," a Centerline (Macomb County) physician received special recognition by his patients.

James W. Bryce, M.D., was presented with a bronze plaque on January 2, in a simple ceremony in his office by a committee representing about 150 of his patients. The group was especially appreciative of Doctor Bryce's willingness to make house calls.

Michigan Medical Meetings and Clinic Days

February 25-27	National Conference on Rural Health	Grand Rapids
March 8-11	Michigan Clinical Institute	Detroit
March 17, 18, 19	International Symposium on Platelets	Detroit
March 21-22	Michigan Conference on Comparative Medicine	East Lansing
March 30	Physician and Hospital Workshop for Disaster Medical Care	Battle Creek
April 7	Ingham County Medical Society Spring Clinic	Lansing
April 13	Genesee County Cancer Day	Flint
May 4	Wayne State University Clinic Day and Alumni Reunion	Detroit
June 17-18	Upper Peninsula Medical Society	Escanaba
July 28-29	Coller-Penberthy Clinic	Traverse City

It Can Happen Here

By B. E. Freamo

Assistant Secretary (Economics)
Canadian Medical Association
Toronto, Ontario

(Because of the importance of this subject, The Council of MSMS directed that excerpts of Mr. Freamo's remarks be reprinted. Talk delivered in Chicago, August 20, 1959, and reported by R. W. Teed, M.D., Ann Arbor, Chairman, MSMS Public Relations Committee.)

The cliche, "It can't happen here," in the past has been a particularly apt phrase to describe the attitude of many physicians in Canada toward the introduction of government-sponsored health insurance programs. During the past two years they and we have had to face reality. As a result of our experiences we can say with some assurance that "It can happen here."

In Canada, the private practice of medicine, in hospital and out, has traditionally been performed on a fee-for-service, private-enterprise basis with two limited exceptions.

Our hospitals are almost all public general hospitals rather than proprietary or private institutions. Traditionally, all levels of government—municipal, provincial and federal—have made substantial contributions to the cost of hospital construction and maintenance. Nonetheless, some hospitals have always been hard-pressed to finance mounting deficits.

Canada is a federation of provinces and health has always been a provincial responsibility. However, because provincial revenues have not been sufficient to meet increasing expenditures, federal financial assistance in the health field has been courted by most provinces.

Two Programs Inaugurated

During the past two years we have seen the introduction of a federal scheme of hospitalization insurance, and one of our provinces has further implemented a program which provides free in-hospital medical services for all children up to age 16.

Today in Canada three-quarters of our citizens are covered for basic ward care by a comprehensive plan of hospital care insurance initiated and substantially financed by the Federal Government but administered by the respective provincial governments. The coverage basically approximates that which was previously provided by Blue Cross, with these important differences: There are no waiting periods and no restrictions on cost of drugs or length of stay other than medical necessity.

Nine of the ten provinces have signified their intention to participate, and seven of the nine have now initiated their programs.

It is important to note that the governments do not own the hospitals. Control of the individual hospital remains with its board of

governors. However, the administering agency does have budgetary control and must approve all hospital budgets.

This facet of the program—admittedly usual when government monies are being spent—is nonetheless disturbing to the medical profession in its long-term implications.

This hospitalization program was initiated by a Liberal government and implemented by a Conservative government. It has won wide-scale public approval. The legislation was the subject of an extended debate in Parliament, and adverse comments related to the inadequacy of the benefits proposed and the bill was finally adopted without a dissenting vote.

Hospitals Approve

The attitude of the hospitals is favorable. The Canadian Hospital Association, with some minor reservations, is on record as approving the program.

The attitude of the medical profession varies widely. Some members of the profession consider that Canadians now have made the philosophical decision that health services should be provided by the state, and that the next step—the provision of medical services—is a problem only of timing and finance. Other doctors believe that this is a wholly desirable development which will be of the utmost assistance to their patients and one which will materially aid the practice of medicine.

The Canadian Medical Association has long favored a program of basic hospital insurance for all Canadians. However, the legislation, as enacted, goes beyond the provision of ward care coverage. Diagnostic services are included as insured benefits. The profession in Canada does not agree that laboratory and radiological services are hospital services but rather has repeatedly asserted that these services are medical services.

Nonetheless, they are insured services. As expected, utilization has increased sharply, and the profession is concerned that the revenues of these departments remain adequate to allow the provision of sufficient personnel to maintain quality of service despite the increased demands made.

Medical Services Included

Of immediate concern is the medical services program which has been introduced in Newfoundland. In 1957, Premier Smallwood announced that a program would be introduced which would provide free in-hospital medical services for all Newfoundland children up to age 16. The profession in Newfoundland was astounded. There had been no prior consultation or discussion. It was obvious that the Premier intended to put this program into effect and that his government's position was sufficiently strong to minimize any opposition.

The profession had no alternative but to accept the arrangement as a fait accompli. Subsequently, after a strenuous series of meetings and negotiations, a reasonable arrangement was concluded. Provision was made to insure continuation of free choice of doctor and patient, and payment was arranged on a fee-for-service basis.

One of the lessons we have learned from this program is that a fee-for-service method of payment is only a partial economic protection for members of the profession participating in government-sponsored programs. It has become very evident that no matter what type of payment arrangement is accepted by government, it is likely and indeed inevitable that governments will impose limitations or ceilings on earnings.

Why These Developments?

The reasons for these sociological developments are many and varied. I expect that some of them are equally as applicable in the United States as in Canada.

First, we must admit that some problems do exist. While we cannot delimit the area of concern, there is no doubt that some Canadians do not receive the medical care they need. The reasons are varied but in some instances must be economic. This problem will not disappear just because we may choose to ignore it, and it is essential that we both recognize the problem and do something about it.

The cost of medical care is rising and will probably continue to rise as advances in medical science create new and more intricate avenues of treatment. The mercenary attitude of a small proportion of the profession increases this cost.

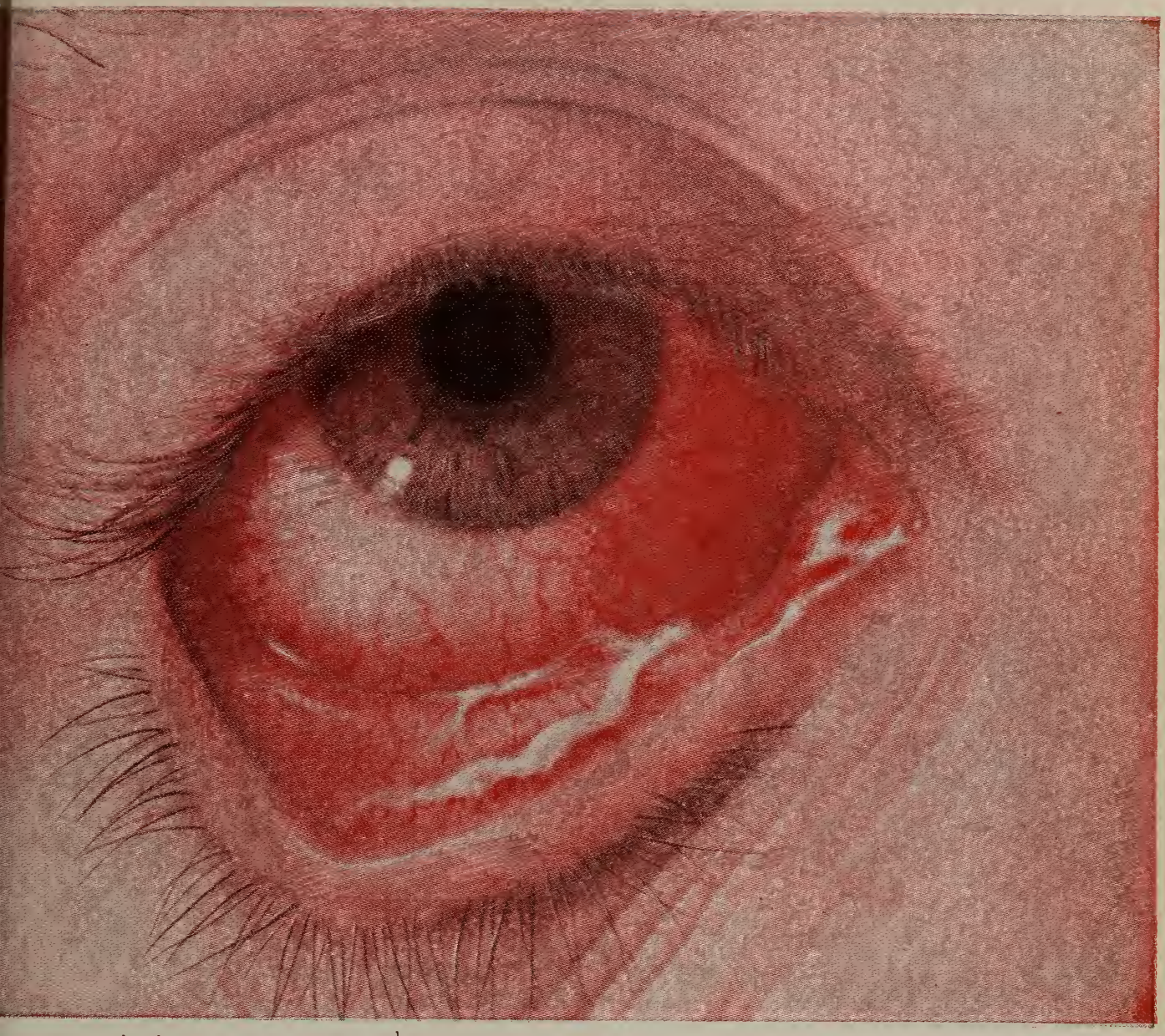
This factor of cost alone is compelling many members of the public to regard with favor the suggestion that government should ease the burden by legislative action. Governments have been quick to accept this ideological concept of a partial welfare state. This is evident in the social security measures which have been introduced and accepted.

In Canada, rising living standards have tended to eliminate differences of political ideology. Political parties are no longer the "haves" and the "have-nots" but rather the "ins" and the "outs." Each party is looking for issues that will insure election. The National Hospital Insurance Program was implemented by a Conservative government. A medical care program, properly presented, would have tremendous emotional appeal.

Fiscal Irresponsibility

It is my view that governments have recently tended

(Continued on Page 204)



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1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

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It Can Happen Here

(Continued from Page 202)

to become more fiscally irresponsible. This is due to our "educated" approach to financial and economic problems, and it has engendered in both government and the public a lackadaisical attitude toward balanced budgets. They no longer hesitate to implement a program just because we can't afford it.

These reasons suggest to me the possibility that governments might, for reasons of political opportunism alone, implement a program of medical care insurance. I hope that I am wrong and that mature consideration by both the profession and government will alleviate present problems without destroying our medical tradition.

I am concerned about the future of the practice of medicine because I see in recent government interest implications which are far greater than many of you may realize. You can probably foresee the possibility of bureaucratic control; loss of freedom in the treatment of your patients; misuse or abuse of your time and knowledge by insincere patients; loss of true professional status, and an eventual reduction in real income.

Some of these problems would likely arise. You would find their application annoying and unjust. However, they would only represent apparent symptoms of the predictable long-term result—decadence in the art of medicine.

I cannot foresee that the art of medicine can possibly be enhanced under the conditions which must eventually be associated with government control. Further progress in the quality of medical care is not consistent with a program which must stress equality of care.

Under our traditions, the practice of medicine in Canada is rewarding—financially and spiritually—to each physician in accordance with his capabilities. This professional climate is essential in medicine if we are to encourage new entrants to the profession in sufficient numbers and with sufficient skills to enable us to progress still further in the provision of quality in medical services.

The health care of our nation is as dependent upon the attitude and response of the public to medical advice as it is dependent upon the skill of physicians. Complete elimination of personal responsibility will tend to reduce the effectiveness of competent medical opinion and thus negate further medical progress.

Air New Radio Series

A new public service radio series, under the supervision of the American Medical Association, began in December over the nationwide network of the American Broadcasting Company. The series, called "Highroad to Health," is being presented in cooperation with Lederle Laboratories, a Division of American Cyanamid Company. Weekly programs of fifteen minutes each will deal with a wide range of health problems.

Each program will open with a nine-minute dramatization of a health problem. This will be followed by a five-minute discussion of the problem by a guest physician who will also answer questions posed by the program host.

"Highroad to Health" is available to ABC stations each Wednesday at 2:15 p.m. and also each Saturday at 10:30 a.m.

ABC reports that the following Michigan Stations are carrying the series—WELL of Battle Creek, WBCM of Bay City, WXYZ of Detroit, WLST of Escanaba, WBBC of Flint, WLAV of Grand Rapids, WMIQ of Iron Mountain, WIBM of Jackson, WJIM of Lansing, WKLA of Ludington, WDMJ of Marquette, WKBZ of Muskegon, WTTH of Port Huron.

New Films Available from American Medical Association

"FIRST CONTACT" is a 26-minute dramatic color film emphasizing the key role played by the physician's medical assistant in creating good public relations. It shows the mistakes a new office assistant can make unless she is properly trained for her job, and points out that medical assistants group provide opportunities for increasing on-the-job efficiency.

"A MATTER OF FACT," the latest film in the American Medical Association-American Bar Association "Medicine and the Law" series, brings to focus the serious consequences of an inadequate post-mortem medical examination. It portrays a typical situation in which an innocent man is accused of murder due to the lack of technical training of a county official. This 30-minute film is a 16 mm., black and white sound film.

"RADIATION: PHYSICIAN AND PATIENT" brings together the nation's most authoritative scientists and physicians in a discussion of radiation exposure and protection in diagnostic use of medical radiology. The 45-minute, 16 mm., sound and color film is sponsored by the American College of Radiology.

Federal Program Under Way

To carry out its broad responsibilities under the new Federal Employes Health Benefits program scheduled to go into effect in July 1960, the Civil Service Commission has designated an employe in each of its eleven regional offices to be regional health benefits representative.

The new program was authorized by the Federal Employes Health Benefits Act of 1959 and closes a major gap between fringe benefits in Federal employment and those offered by progressive private employers. It is a voluntary contributory program with the Government paying up to a maximum of 50 per cent of the cost and the employes paying the remainder. Approximately 1,800,000 Federal employes, stationed all over the world, and about 2,200,000 of their dependents are expected to be covered by the program.

The health benefits representatives include John J. Murray, Seventh Region, Chicago.

The Federal Employes Health Benefits program is the largest employer-sponsored health benefit program in the world and is one of the most complex because of the variety of benefit plans that will be offered. Under the act, the Commission will contract for or approve four types of plans. These are a Government-wide service benefit plan, a Government-wide indemnity benefit plan, health benefit plans of Federal employe organizations which wish to participate in the program, and comprehensive medical plans that may be offered by individual associations which also wish to participate. It is estimated that there may be as many as forty different health benefit plans included under the program.

To prepare the health benefits representatives for their new assignments the Commission held an intensive indoctrination course in Washington, D. C., January 18 through January 29. Following this indoctrination, the regional health benefits representatives will set up similar programs for appropriate Federal agency personnel in their own regions.

Home Care Experiment Started by Blue Cross

A one-year limited experiment in "home-care" coverage by Michigan Blue Cross has been approved by the State Insurance Department.

The objectives of such an experiment, points out William S. McNary, Blue Cross executive vice-president, are to determine if such a home-care plan is of advantage to the patient and how much it might reduce the length of hospital stay in cases where home-care is medically indicated by the doctor.

Involved in the experiment, under carefully controlled conditions, are the Detroit Visiting Nurses Association, four Detroit area hospitals and their medical staffs and a typical Blue Cross employe group of 1,000 subscribers.

The one-year trial will cover 300 patients in the post-acute stage of hospital care selected by their doctors for earlier discharge than would otherwise be possible. Choice of whether to participate in the home-care plan will rest with the patient.

Home-care covered in full by Blue Cross will include visits by VNA physical therapists, VNA social workers, plus all drugs and dressings related to the patient's hospitalized illness. Follow-up laboratory and x-ray services will be covered under the terms of the Blue Shield M-75 coverage. In addition, Blue Cross will pay one-half the cost of VNA home aide service (housekeeping) when required.

Although it is estimated that home-care cost per day is probably about one-quarter of in-hospital care, such cost-reduction is not the only reason for the program. One of the most important reasons for this experiment is to determine the psychological advantages to the patient, who with home-care assistance, can leave the hospital sooner and complete his recovery more advantageously in his familiar home and family environment.

The total cost of the experimental program will be $90,000. However, since in-hospital costs for the patients would total nearly $143,000, the net saving would probably be over $50,000.

A similar home-care experiment conducted in New York indicated the majority of patients were in favor of it.

Checked Your Drivers License Lately?

Three out of every ten people who renew their drivers license do so after the expiration date of their old license has gone by.

A special audit ordered by the Secretary of State office showed that 323 drivers out of 1,100 had failed to renew their license on or before the expiration date. The state office suggests that citizens should automatically check their license as their birthday approaches to make sure that it will not expire on their upcoming anniversary.

Report Blue Shield Gains

A report of the National Association of Blue Shield Plans for the first nine months of 1959 reveals that

Enrollment figures increased more than 1,600,000 and

Payments for medical-surgical care totaled more than $487,500,000.

"Of significance is the fact that the nine-month enrollment gain for 1959 reflected a substantial improvement over the 244,673 gain for the corresponding nine months of 1958," the national association stated in its report. Total membership in the various Blue Shield Plans reached 44,214,441 as of September 30, 1959, which represents an enrollment of nearly 24 per cent of the total United States population.

Total payments to doctors in behalf of members, which exceeded 480 million dollars during the nine-month period, represented 90 per cent of the total income of all Plans. The Plans expended less than 10 per cent of total income for administrative expenses.

"Both the nine month financial and enrollment reports," the national association reported, "bear out the vital part Blue Shield plays in the health care of the nation. The enrollment gain reflects the continued acceptance on the part of the public for the medical-surgical programs offered by Blue Shield Plans, and the benefits provided represent an all time high for a nine month period and serves to point up the extent to which Blue Shield is helping pay the nation's yearly doctor bills."

Report Medical Care Expenditures

Americans will spend an average of $100 each for medical care this year, the Social Security Administration estimates.

It represents an increase of about 5 per cent over 1958, when per capita expenditures for medical care were figured at $95.65, and about 10 per cent over the $91.19 spent in 1957.

Included in the estimates are such expenses as hospital fees, health and hospitalization insurance premiums, physician's fees, nursing care, drugs and medicines, and prosthetic appliances.

Increases in hospitalization fees and insurance premiums account principally for the higher 1959 outlays, according to preliminary data of the Division of Program Research in SSA.—*Scope*, Vol. IV, No. 47

"YOU CAN DEDUCT THE COST of attending a professional convention only if you prove you attended it primarily to advance your own practice, says a new I.R.S. ruling. If you attend primarily on some association's business—say as a medical society delegate—your deduction may be disallowed." (From *Medical Economics*, Vol. 36, No. 22.)

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"A PAMPHLET CHIROPRACTORS ARE CIRCULATING says: The doctor of chiropractic is what we call an 'average American' . . . He keeps (his fees) modest and within the means of his patients, as compared with the often high fees charged by the physicians whose high overhead and scarcity of competition pressure them to demand all the traffic will bear." (From *Medical Economics*, Vol. 36, No. 22.)

Rural Community Health

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A LINGERING IMAGE of rural community health is made of a red quarantine sign, a health officer hauling a carcass from the river, a sanitarian pacing off 50 feet from a privy to a well, and a nurse performing head lice inspection. This dates back to the days when "father doled out medicine from his red pill box and the miserable one who felt something coming on took his salts and senna and worked it off with repeated excursions to the little house well back from the road." Medicine has changed. So has rural community health. Today, we see two portraits of rural health, neither looking much like the tintype many people carry in their heads.

Rural-farm.—One portrait is of bona-fide rural communities and families. The 1950 Census classified fewer than 700,000 Michigan people as rural-farm—a drop of 19 per cent in ten years. Demographers suggest that the 1960 Census will show another decline. Farm families have many of the health problems of earlier years, but they also face a variety of newer and changing hazards. The gantlet includes the teeth of the cornpicker, the poison of chemical insecticides, diseases such as Q fever, increased chronic illness, together with the quackery of food supplement salesmen.

Rural-suburban.—The second type of rural community health is in areas around metropolitan centers. The 1950 Census classified over 1,575,000 people as rural nonfarm, representing a 67 per cent increase in ten years. A strong suburbanization trend has continued. This is the growth of cities all over again, with the problems made more complicated by newer technology. Neighbors risk drinking each others' sewage from septic tanks which overflow with waste from garbage grinders and the flood from the automatic washers. Open garbage dumps threaten suburbanites with flies and rodents. Even country air in some areas is polluted. Outmoded political boundary lines inhibit some services. Health services for youngsters often falter because of city-township squabbles over schools, districting, incorporation, annexation, taxes, millage, and assessment.

Development of Health Services

While many professions and agencies help provide health protection for rural communities, full-time local health departments are a focal-point for many services.

Historical.—Governmental public health interest in Michigan started in 1831, when the Legislative Council of the Territory of Michigan forbade the slaughter or cleaning and dressing of animals

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within 80 rods of the Detroit River and within three miles of Detroit. In 1927, the State Legislature gave Boards of Supervisors permission to establish county health departments. Local incentive, together with assistance from the Kellogg Foundation and the Children's Fund of Michigan, encouraged counties to set up health services. At present, sixty-eight counties contribute to the support of thirty-seven approved, full-time county and multi-county health departments. Although this record is the envy of many states, some of our important farm communities are not included in areas covered by approved, full-time local health departments. Counties without approved departments are: Berrien, Cass, Clinton, Gogebic, Gratiot, Huron, Ionia, Jackson, Lapeer, Livingston, Marquette, Montcalm, Sanilac, Tuscola and Van Buren.

SEPTIC TANK SUBURBS—Haphazard sewage disposal and water supplies pose a threat to health in suburban areas. Satellite communities need protected public sewerage and water systems.

SANITARY LANDFILL—Many open garbage dumps, once beyond the city boundary lines, now are bordered by suburban homes. The sanitary landfill results in burying refuse so it will not serve as spawning grounds for flies, rodents and other potential disease carriers.

Functions.—Local health departments in rural communities as elsewhere in Michigan have been developed by legislation and experience as "community health physicians," responsible for taking a history of health needs, diagnosing community problems and co-ordinating resources for prevention, correction or cure. Local departments are a convenient contact point between people and the health professions. They help handle many community health problems involving medical judgment which cannot be met by the individual family or the individual practitioner. The physician can treat the abscess which his patient develops on return from the hospital, but group effort may be needed to overcome conditions which lead to the spread of staphylococci. Health departments can give leadership in organizing such effort and act as a channel to needed specialists.

Partnership.—The old myth that a health department was somehow in cut-throat competition with private medicine has given way. There is steady growth of a partnership based upon mutual trust which reinforces the relationship of the doctor to his patients and community, encourages the voluntary agency, improves the use of facilities, and also helps the official health agency give taxpayers a greater return.

MILK SANITATION—Because of modern transportation and food processing, one sanitation failure can cause illness among consumers over a wide area. Health department sanitation programs for dairies, restaurants and food processing plants face demands of growth and new technology.

Some problems testing this partnership in rural areas already have been mentioned—sanitation, occupational disease, child health and long term illness. They are worth a closer look.

Sanitation

Water and Sewage.—We take satisfaction from the fact that Michigan has not had typhoid traced to a public water supply in a quarter of a century. Yet, about 1,600,000 Michigan people are not served by protected municipal supplies. Potential hazards of water-borne disease became a reality again last summer in the northern town of Posen where eighty-nine out of fewer than 400 people contracted infectious hepatitis. The organism apparently spread through septic tanks, into the ground and through cracks in the limestone which underlies that area, into the shallow wells. The Posen incident calls upon suburban rural communities to make haste to secure services of public water and sewerage systems. In areas which cannot be served by public supplies, private wells should be properly constructed and safeguarded from contamination.

Food.—Most rural communities do not have food ordinances or effective sanitation programs, so local residents as well as tourists dine out only at their own risk, and outbreaks of food-borne disease and poisoning are all too common.

Rural areas need to exchange the open dump—an eyesore as well as a health hazard—for the sanitary landfill, which provides for prompt burial of garbage and refuse.

Still another growing sanitation problem in rural resort areas as in other parts of the state, is pollution from watercraft. In one area, sewage from pleasure craft was being pumped into the lake only a stone's throw from a bathing beach and a water intake. There is cause for concern over the fact that only about half of Michigan's resorts and motels—many of them in rural areas—wear the green and gold "Health Department Approved" sign. And in many rural areas, sanitation safeguards for migrant labor camps remain inadequate.

Occupational Disease

Accidents.—As farming has become mechanized, the accident potential of rural families has increased. In the past two years, 145 Michigan persons were killed by farm accidents—with machinery the number one offender. In this field, again, the continued

partnership of groups such as Extension Service, farm organizations, Safety Councils, health departments, and others is needed. Public health nurses and sanitarians can do much to promote safety through their routine visits because they already are accepted in the role of family counselors.

HEARING SCREENING— Co-operative hearing screening projects check about 500,000 Michigan children yearly compared with 69,000 screened in 1948.

Two communicable diseases merit special mention as rural occupational hazards.

Tuberculosis.—In the past year, the Department of Agriculture reports about one out of every sixty-six head of cattle tested was found infected with tuberculosis and an estimated 25,000 people may be in contact with infected herds. The resurgence of Tuberculosis in cattle calls for a strong bovine TB eradication program, and is another reason for vigilant public tuberculosis control in rural areas.

Q Fever.—Evidence of the Q fever organism (Coxiella burneti) has been found in milk from 176 out of 1,606 dairy herds checked recently in sixteen Michigan counties. This rickettsia parasite can live in cows, sheep and goats without apparent ill effects, but causes illness similar to pneumonia or influenza when spread to man through unpasteurized milk, animal excreta, barnyard dust or uncooked meat from infected animals. Pasteurization standards have been increased slightly to safeguard milk supplies, but the farmer's protection is close attention to basic sanitation procedures. Other problems related to milk supplies include undulant fever, dangers of antibiotic contamination of milk and evidence of cross-infection between livestock and man involving resistant staphylococci.

Besides accidents and the zoonoses, many farmers are poisoned through careless use of newer, potent insecticides and herbicides. A dermatitis in celery workers is under study in Michigan by the state health department and U. S. Public Health Service, and research so far indicates this may be associated with handling celery which has "pink rot."

Child Health

Childbirth.—Today 99 per cent of the births in Michigan occur in hospitals, compared with 60 per cent twenty years ago. During these years, there have been marked reductions in maternal and infant deaths. Some of the progress can be traced to the co-operation of physicians, hospitals and health departments. As one phase of the effort, twenty years ago health departments nurses began virtually a "crash" program with parents on the importance of prenatal care by the physician. In the last few years, the increase in the number of younger mothers calls for intensified educational effort both in high schools and through expectant parent classes. The local department, both in its co-ordinating and educational functions, should continue to play a major role in

organizing such services. The state health department continues to work with schools on maternal education—to help teenagers who are children one day and parents the next.

Other child health services needing emphasis in rural areas include vision, hearing and immunization. Vision and hearing screening programs in the schools, while growing rapidly, still fall short of reaching the number of youngsters who reasonably should be tested each year. Sample surveys of immunization levels have indicated that there are low immunization pockets which could trigger outbreaks of poliomyelitis or diphtheria.

Long-Term Illness

Care.—Most rural areas have no visiting nurse service, no nearby rehabilitation or physical restoration facility, few if any quality nursing homes or homes for the aged and crowded general hospitals. A new design of rural community health is needed to match the lengthening lifespan—expanding the scope of services and facilities to include long-term illness. Health department or voluntary agency home nursing services on referral from physicians of the community can reinforce the physician's orders, give the patient incentive to keep under medical care, teach the family or neighbors simple home care techniques and help families through crisis situations with catastrophic disease. Health department licensing and consultation for 572 nursing homes and homes for the aged which started in 1956 should be further developed to aid the homes in improving their services and in using simple physical restoration measures. Rural general hospitals should be expanded to provide rehabilitation units, and more definitive care, including out-patient services, is needed in county medical care facilities.

Screening.—As well as stimulating a blend of care facilities and services most effective and least expensive for the long term patient and the community, health departments in rural areas can be of help in screening programs. Testing programs screen out persons who may have disease in early stages and encourage them to go to their physicians for examination and diagnosis. Screening is a newer phase of the partnership between private medicine and public health. It is a necessary supplement to but not a substitute for periodic health appraisal—conserving the physician's time by bringing him persons who are more likely to have disease.

In recent co-operative programs with physicians:

- 8,552 women were screened for cervical carcinoma in the nine projects using the Papanicolaou smear test, resulting in thirty-three confirmed cases, or 3.9 per thousand screened;

LONG-TERM ILLNESS—Development of home nursing, quality nursing homes and chronic disease rehabilitation units in rural areas is needed for patients with long-term illness.

- 27,780 persons were screened for diabetes using the Wilkerson-Heftman method for blood sugar determination in ten projects, and further examination of suspects by private physicians confirmed 117 new cases—a rate of 4.2 per thousand screened.
- 1,679 persons were screened by physicians for glaucoma using the tonometer in one project and follow-up examinations of suspects by ophthalmologists so far have confirmed twenty new cases.

Expansion of these programs in rural areas could help prevent disability and save many lives.

Manpower and Motivation

Rural community health needs can be met by providing increased resources and by persuading people to act in the interest of their own health and the health of their family and community.

Manpower.—A number of rural local health departments are crippled by lack of funds—unable to do work delegated by the state and unable to hire enough staff to carry out the basic services. Follow-

ing a recommendation made by representative Citizens Community Health Advisory Committee and supported by MSMS, the state health department has requested an increase from $315,000 to $500,000 in state assistance for local health departments, with the added $185,000 to be shared by forty-six counties which contribute to the support of multi-county departments. Most of these counties have large rural areas and all but two are in northern Michigan.

DIABETES SCREENING—Blood specimens are checked for syphilis and diabetes. Device in the background is the clinitron, which performs the Wilkerson-Heftman blood sugar determination in about three minutes. Persons whose blood sugar is apparently abnormal are referred to physicians for examination and diagnosis.

Motivation.—Some sociologists estimate that as few as fifty per cent of the people are "joiners," that is, they belong to organized community groups. Group channels can be used to help reach these people with health information and to attempt to persuade them to make better use of available medical and health services. The other half of the population, difficult to reach on a group basis, can be given equal opportunities in health only through continued joint effort through all channels—and the role of the individual doctor of medicine remains the most important of all.

Summary

1. Two types of rural community health are identified—farm-rural and suburban-rural.

2. Most Michigan rural communities are covered by local health departments, which have developed as "community health physicians" to marshall health resources.

3. Rural community sanitation problems include haphazard water and sewerage systems, lack of food ordinances, open garbage dumps, pollution from watercraft and resorts which do not have health department approval.

4. Occupational disease problems include an increased farm accident potential, an upsurge of bovine tuberculosis, Q fever, poisonous insect sprays, and other disease entities peculiar to farming.

5. Child health needs include added education for the increased number of younger mothers, and renewed emphasis on vision, hearing and immunization programs.

6. Public health services and facilities should be expanded to include more emphasis on long term illness, both through improving care facilities and by use of screening programs in co-operation with private physicians.

7. Local health departments need additional manpower, and continued effort is needed to persuade people to care for their own health, with the family physician in a key role.

The Michigan Health Council

A True Story of Service and Progress

Harry B. Zemmer, M.D.
Lapeer, Michigan

HOW would you like to have someone take part of the load off your shoulders in community affairs or help you find an assistant when the demands of your practice have you snowed under with work? You would probably like it, too, if someone would take the initiative for you in recruiting young people to select medicine as a career or get them interested in the advantages and opportunities open to them as medical associates. It might even be helpful if someone could demonstrate to your patients that the surgical and other procedures you perform in your office are not lengthy, fearsome ordeals but relatively painless undertakings which are accomplished in a very short time.

It may come as a surprise to some doctors in Michigan to learn that there is an organization working for them which does all these things and many more besides. That organization is the Michigan Health Council.

Here are a few examples of what the Health Council has done—

- in five years of operation, the M.D. Placement Service has been directly or indirectly responsible for helping 354 doctors find locations to practice where they are needed most in Michigan.
- in four concentrated weekly Regional Health Conferences last year it informed more than 2,000 high school and college students about health careers.
- for the past nine years it has presented a weekly half hour television show on health subjects.
- in three strategic, high-listener areas of the state it supplied major assistance in the production of one hour television shows, which reached more than a million people, to take them behind the scenes in a doctor's office.
- in eighty-three towns, cities and villages of the state it encouraged local groups to band together in community health councils to see how each community could solve its particular health problems the voluntary way.

While this is but a partial list of accomplishments, it is quite apparent that the Michigan Health Council not only provides direct benefits to the medical profession but reaches out to all people in our state.

The Organization

It is not uncommon in a gathering of doctors to have a few wear a quizzical expression when the subject of the Michigan Health Council is brought up. So, for the benefit of those who have a vague conception about the organization, and for the many young doctors who have joined the Michigan State Medical Society in the past years, let's take a closer look at this health group which provides some of the muscle in the strong right arm of our Society public relations efforts.

Quite simply, the Michigan Health Council is a non-profit, educational, voluntary organization made up of 80 state-level associations, societies, universities and other groups which have a major interest in health. They provide financial assistance through annual grants and are called Voting Members. Each Voting Member has only one vote no matter the size of its contribution. A new category of participation was adopted in 1958 to give recognition to those individuals, associations and corporations who are interested in the work and purpose of the Michigan Health Council and who wish to contribute financially. They are called Associates and do not have voting rights. So far, four Associates have joined the Health Council.

The Council was founded in 1943 with four charter members—the Michigan State Medical Society, Michigan Hospital Association, Michigan Hospital Service and Michigan Medical Service. Beginning in 1947, it was reorganized and has come to be recognized as a vital force which is a prime mover in health matters in Michigan.

Its primary objective is to encourage, stimulate

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and support the establishment of health and medical care programs in local areas of Michigan on a voluntary basis. The name of the association gives a hint of how it operates to reach the objective. It is a *Michigan* organization carrying out *health* programs through member organizations who *council* together to work out jointly sponsored health programs.

Even though many of the members have local programs, the Health Council acts as a co-ordinating force to draw all these efforts together into a unified onslaught against disease, unhealthy conditions, ignorance or uncertainty. This effective co-ordination goes a long way toward eliminating unnecessary duplication or overlapping of health programs by individual groups in our state.

The Executive Office, staffed by four people, is located at 712 Abbott Road in East Lansing only a stone's throw from the new MSMS building. While the mechanics of carrying out the many Health Council programs emanate from this office, the real direction and guidance for these programs comes from a twenty-one-man Board of Trustees who are elected from the voting membership. The prominent men and women of the Board† are not figureheads. Instead, they have become an important asset to the Health Council by being a working Board of Trustees, who actually participate in the operation of the Health Council, because they are persons with a vital interest in the activities and progress of the organization. They are top level, dedicated experts, representing a variety of fields of knowledge. Each makes an important contribution by drawing on a wealth of experience in facets of state and community living which bear directly on the health of the people of Michigan.

The Board meets three times a year in March, September, and at the annual meeting in conjunction with representatives from voting members in December. In the interim, the Executive Committee meets periodically to provide the necessary advice and guidance. In addition, the thirteen Committees of the Health Council meet as required to give direction to Council activities.

The sound organizational structure would be for naught, however, unless the Health Council developed and implemented programs to give it a reason for existence. Suppose, then, that we review briefly the programs and let you be the judge whether the Health Council merits the fine support it has been receiving from the Michigan State Medical Society.

†See list at end of this article.

Placement Service

It is difficult to determine which Health Council project is most important because each supplies a particular need for different groups. However, of all the programs of the Health Council, the Professional Placement Services currently attract the greatest amount of financial contributions. Almost half of the total annual budget of the organization comes from corporations or foundations which have a specific interest in the three placement programs—M.D. Placement, Dentist Placement and Veterinary Medicine Placement.

The M.D. Placement Program, which the Health Council adopted in 1953, is rated nationally as one of the finest programs in the country. It is operated under the guidance of the Michigan State Medical Society Committee on Rural Medical Service—almost identical in membership with the Michigan Health Council's M.D. Placement Committee. The Service is financed in part by an annual grant from The Upjohn Company of Kalamazoo. The late Ralph W. Shook, M.D., was instrumental in bringing this project to the attention of E. Gifford Upjohn, M.D., in its early years.

The whole key to the program is to place doctors in Michigan communities where medical service is most needed. The Service is offered free of charge, both to doctors looking for a place to practice and to communities looking for a doctor. It has been most helpful also to physicians already established in a practice who are looking for an associate. At the same time it is another outlet for a doctor or a doctor's widow to publicize a practice that is for sale.

Since the project began in 1953, more than 354 physicians have been placed in Michigan. At the present time, 104 communities are listed on the general practice and twenty-five on the specialty rosters. These rosters are available for distribution to all doctors registered with the Service. The information also goes to the teaching hospitals in Michigan.

Several years ago, the Michigan State Medical Society Executive Committee recommended that the Immediate Past President of its component county medical societies act as local advisors to the M.D. Placement Service. They have two main functions. Whenever there is a question of need in a particular community which has requested the Service, the local advisor is contacted for an evaluation of the situation. The knowledge of the advisor about the local medical services is also invaluable to a doctor seeking information about possible practice locations.

Naturally, in a project of this magnitude, there is a great deal of routine work connected with the preparation of rosters and answering correspondence. To give you an idea of what is done in operating the Service, here is just a sample of some of the activities carried on with—

Medical Students and Interns

- Every graduate of a Michigan medical school is contacted each year and offered the free M.D. Placement Service.
- Every Michigan resident who goes to medical school in some other state is contacted and urged to use the Service and return to his home state to practice.
- Questionnaires are mailed to these new physicians to give them a chance to indicate what type of community they are interested in, what branch of medicine they will practice, and where they would like to locate.
- Presentations are made to Senior Medical Students to let them know about the placement Service available to them when they graduate.

Communities

- Whenever a community requests assistance, a questionnaire is sent to it to obtain a general picture of what the town needs in the way of medical service. (The need is also verified by the local advisor, always an M.D.)
- Correspondence is carried on with communities, offering them advice and encouragement in obtaining a doctor.
- Personal field trips are made to communities to investigate the potential opportunities and to gather additional material about the location.

All Doctors of Medicine

- A doctor requesting the Service receives a questionnaire asking him to note his qualifications, where he would like to practice, what type of community he is looking for, and when he is ready to establish that practice.
- A General Practice and Specialty Roster is maintained which lists each community with a brief summary of the type of practitioner needed. Each doctor receives a Roster. The Rosters are revised annually to keep them up-to-date.
- As a supplement to the Rosters, Special Bulletins are prepared and mailed to doctors and teaching hospitals which cover new opportunities as they become available.
- Correspondence is carried on with doctors from all parts of the United States informing them of the Placement Service available to them in Michigan.
- Interviews are conducted at the office of the Michigan Health Council with doctors who seek additional advice and guidance on opportunities in Michigan.

Of course, the Health Council Services works closely with the American Medical Association Physician Placement Service and other organizations have an interest in this activity.

Dentist Placement

A second placement service is one operated for the dentists. It's a relatively new program which was established in 1958. The first three years of the program are being financed by the W. K. Kellogg Foundation. Guidance for the project comes from the Michigan State Dental Association.

The pattern of operation for this program is much the same as the M.D. Placement Service. For instance, contacts are made with Michigan dental students and those going out of the state for training. A total of 148 dentists and thirty-seven communities are now registered with the Service, and nineteen placements had already been made at the time of this writing.

Veterinary Placement

When work was begun on the establishment of a Veterinary Placement Service, The Upjohn Company once again came forward with financial assistance. It is believed that assisting veterinarians to find locations where they are needed throughout the state will have an indirect—but marked—effect on rural health.

The preliminary tasks of setting up the Service have gone ahead. Officers and other key people of the Veterinary Medical Association see the need for the Service and have appointed an advisory committee to work closely with the Health Council. As soon as the majority of the membership of the Association becomes more familiar with the Health Council and the worth of this project, it is expected that more rapid progress will be made.

Conferences

Like other organizations, the Michigan Health Council conducts an annual conference for its mem-

bership and other interested participants. For the past twelve years, it has helped in the arranging of a two or three-day meeting called the Michigan Rural Health Conference.

The Conferences provide the opportunity for people to get together to discuss health problems with recognized experts. In the early years, the meetings stressed rural health. As heavy concentrations of the population began pushing into the rural areas, however, the subject matter of the meeting shifted to include the flood of new health problems posed by this population movement. For the past several years, one day of the Conference has been devoted to the professions and topics are slanted to the special interests of medicine, dentistry, and other services in the area of rural-urban health.

Lately, the emphasis has been placed on accidental injuries and deaths along with a gargantuan subject which might well become the sole topic of a conference—health careers.

Attendance at the meetings has usually averaged between 300 and 400, except for the record-breaking Conference in April, 1959, which attracted 800 persons.

In an effort to bring these important meetings to more people, conference planners decided to take the meetings on tour. As a result, four one-day Regional Health Conferences were held during a four-week period in the Fall of 1959 at Marquette, Kalamazoo, Mount Pleasant and Detroit. The Conferences featured three major topics—health careers, highway safety, and rural, community and school health programs.

The majority attending the regional meetings were high school and college students who were interested in careers as a member of the medical and health teams. When registration figures were tabulated, it was apparent that more than 2,000 students had received the latest information about health careers from 100 program participants who were actually working in the careers presented. Newspaper and television coverage of the Conferences also supplied information to those unable to attend.

Health Careers

With the tremendous interest in health careers verified by the response of students, parents and counselors during the Regional Health Conferences, the Michigan Health Council is encouraged to continue and augment its plans for a whole new program on this vast topic. As a matter of fact, it is entirely possible that such a program would attract financial contributions to equal or even surpass the money now contributed to the Placement Services.

The Michigan Health Council is the logical organization to conduct a careers program to ease the shortage of trained medical associates. Its membership includes many groups which have a vital interest in health careers. Actually, some health career is represented in nearly every member organization.

The first tentative steps were taken to launch a positive careers program when a thirty-member Health Careers Committee was appointed and held its first meeting in November, 1958. The committee members included key officials in nearly every health group as well as deans and other educators from colleges and universities.

Until adequate financial support is forthcoming, the Health Council is carrying on health career activities through existing projects of the organizations such as the Conferences mentioned above and through Council television programs. Since proper financing is a "must" to put the program in full operation, a proposal outlining the essentials has been submitted to a Michigan foundation.

When the new program moves into gear, it will get information to young people through speakers bureaus, films, television, radio, exhibits, health fairs, junior medical associates organizations in schools, distribution of literature, vocational week celebrations, career caravans and liaison with high schools, colleges and universities where credit courses are already in operation.

Television

The Michigan Health Council pioneered in medical and health television programming. Beginning in 1950, it began weekly television broadcasts from the studios of WJBK-TV, Detroit, to reach a large audience in the southeastern section of Michigan. The programs present a variety of health subjects and give members of the Council an opportunity to publicize their activities and services through this medium. Doctors of Medicine have been, and will continue to be, the major source of participants on the show to provide authentic health information.

In 1958, the Health Council joined forces with the Michigan State Medical Society and local county societies to take another giant step in television production. Together they launched a series of one-hour programs which have been presented in three high-listener areas of the state in Detroit, Kalamazoo and Grand Rapids. The sixty-minute telecast is called "The Family Doctor" and presents some of the things

which go on in a doctor's office. The format includes a physical examination and four procedures—surgical, obstetrical, orthopedic, general—which can be accomplished in the office. Audience response from the show indicates the program has taken a step forward in demonstrating that the procedures are not the awesome ordeals they had imagined.

The "Family Doctor" show will continue to play in other areas of the state wherever television studio facilities can accommodate this large-scale production.

Community Councils

No story about the Health Council would be complete without the mention of the community health council program conducted through chapters of the organization. There are eighty-three community health council chapters in operation in Michigan. The local programs are a true grass roots project which lets people work out their health problems on a democratic, voluntary basis.

The medical profession can play a vital part in this movement. While the dedicated people, who are actively engaged in local health programs, take part of the load off the shoulders of doctors in the area of community health matters, they still need the advice and guidance from the person best equipped by training and experience in health—the doctor of medicine.

Publications

There are two Health Council publications of interest to the medical profession. One is *The Councilor*, which is published four times a year. This goes to key people who are opinion leaders in health matters and keeps them informed about activities and current projects. The other publication is the *Michigan Health Council Directory*. The Directory contains a compilation of the many health organizations in Michigan and describes their functions and services as well as listing the local units of these organizations.

Both publications are available to interested physicians.

The Final Word

The Michigan Health Council is a growing organization. A continuing effort is being made by the Finance and Membership Committee to increase the membership and to interest other groups in joining. They will not only receive benefits of Health Council membership but will make a real contribution to programs and projects according to their specific interests.

Future programs and projects, which the Health Council might undertake in the months or years ahead, are limited only by the financial support available to the organization from public-spirited groups, corporations or foundations. It is fortunate that MHC has the same tax-exempt status as a foundation, university or charity. Due to this fact, it can receive grants from foundations, and all gifts are tax exemptions for the donors.

This is an association which has proved itself and its worth in the past. It stands ready to be of service in any important health program that is in the best interests of the people of Michigan and one which follows the voluntary way—the American way of freedom and individual enterprise.

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Medical Manpower in Michigan

The Distribution of Physicians

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THIS REPORT of a study undertaken for the Committee on Medical Education Needs in Michigan describes the distribution of physicians in Michigan with reference to rural-urban differences. Trends in the supply of physicians in the several geographic regions of the state are described and an attempt is made to explain the striking changes over the past twenty-five years in the age distribution of rural and urban physicians in Michigan. In addition, changes in the type of practice of rural and urban physicians are discussed.

Fig. 1. Medical Service Areas.

Fig. 2. Regions of Michigan.

It has been customary to discuss the distribution of physicians in a state by comparing the supply of physicians in rural and urban areas. Prior to 1940, rural and urban areas could readily be distinguished. Rural areas were generally defined as the farming areas or the small towns. Now the high degree of movement of goods, services and people between the larger cities and the rural areas surrounding them has broken down the former isolation in many places. Many small towns, formerly isolated and rural, are now satellite communities to metropolitan areas. This has made size of place a less adequate measure of rural-urban differences. In our view, rurality can best be described by considering the degree of isolation of small towns or farm areas from the larger centers of population.

Geographic Regions

Previous studies of the distribution of physicians have used as geographic units of analysis, communities[1] counties,[2] medical service areas[3] and broad geographic regions.[4] In Michigan, the large centers of population are concentrated in the southern portion of the state, and as one moves northward away from

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these population centers the distance between communities, and presumably the degree of isolation, tends to increase. Since this is the case, it becomes possible to distinguish between rural and urban areas in Michigan on the basis of broad geographic regions.

the several regions of Michigan over the past quarter of a century. From 1930 to 1957, the number of physicians increased in all regions except the Northern Peninsula. The greatest increase occurred in the Detroit area.

TABLE I. SELECTED CHARACTERISTICS OF GEOGRAPHIC REGIONS IN MICHIGAN, 1950

Region	Largest City	Size of Largest City	Per Cent of State's Population	Per Cent of Population Which Is Rural Farm	People Per Square Mile	Per Capita Income (1949)	Per Cent of Population in Isolated Counties
Northern Peninsula	Sault Ste. Marie	17,912	5	14	18	$ 948	100
Northern part of the Lower Peninsula	Traverse City	16,974	4	31	20	842	100
Central	Saginaw	92,918	12	26	64	1,158	23
Southern, excluding Detroit Area	Grand Rapids	176,515	31	17	139	1,416	0
Detroit Area*	Detroit	1,849,568	49	2	1,149	1,786	0
Total			101	11	113	$1,521	11.2

*Detroit Area includes the counties of Wayne, Macomb, Oakland and St. Clair.
Source: U.S. Census Bureau, Census of Population: 1950, Vol. II, Part 22.

Michigan has been divided into five geographic regions which follow county lines and which represent aggregates of medical service areas (Figs. 1 and 2). These five geographic regions are: Northern Peninsula, northern part of the Lower Peninsula, Central, Southern, excluding the Detroit area, and the Detroit area. The rural northern portion of the state has been divided into two regions, and the generally urban southern portion of the state has also been divided into two regions. Between the rural northern and the urban southern regions lies a region which is intermediate in its rural-urban character.

The data for the relative degree of rurality of the five geographic regions described above are presented in Table I. The two northernmost regions have the lowest population density (people per square mile) and lowest per capita income. The northern part of the Lower Peninsula, along with the Central region, has the highest proportion of rural farm population. All the people in the two northernmost regions live in counties classified as isolated.* It is quite clear that these two regions are the most rural and that the Central region is intermediate in rurality between the two northernmost regions and the two southern regions.

Physicians Relative to Population

Table II shows the total number of physicians in

TABLE II. TOTAL NUMBER OF PHYSICIANS IN MICHIGAN BY GEOGRAPHIC REGION, SELECTED YEARS, 1930 TO 1957

Region	Year				
	1930	1937	1949	1955	1957
Northern Peninsula	233	271	219	218	212
Northern part of the Lower Peninsula	170	194	194	205	208
Central	500	551	528	603	619
Southern, excluding Detroit Area	1,832	2,014	2,282	2,653	2,774
Detroit Area	2,850	3,112	3,717	4,218	4,307
Total*	5,585	6,142	6,940	7,897	8,120

*The total for 1955 and previous years includes physicians on active duty with the Medical Reserve Corps of the Army, Navy, Air Force and Public Health Service. They have been excluded in the total for 1957.

Source: 1930: Report of the Committee on Survey of Medical Services and Health Agencies, Michigan State Medical Society, 1933.
1937: Number of Physicians in the United States by County, American Medical Association, 1938.
1949: American Medical Directory, 1950.
1955: American Medical Directory, 1956.
1957: American Medical Directory, 1958.

The increase in the number of physicians in Michigan over the past twenty-five years has not kept pace with the rapid increase in the state's population. Figure 3 shows the total number of physicians per 100,000 population in each region in the 1930-1957 period, and reveals that Michigan as a whole has experienced a slow but steady decline in its physician-population ratio since 1937.

Contrary to findings for other states, the urban regions in Michigan exhibit about the same rate of decline in the number of physicians relative to population as do the rural regions. There were some slight departures from a consistent pattern, but, in general, all the regions of Michigan showed a slow but steady decline in their physician-population ratios.

*Isolated county is a county which does not contain a city of 50,000 population and over, and which is not contiguous to a metropolitan county. *Metropolitan county* is a county which contains a city of 50,000 population or over, or a county without such a city which is economically and socially interdependent with a county which has a city of 50,000 population or more.

In the United States as a whole, prior to 1940, there was a consistent improvement in the supply of physicians in urban areas accompanying a sharp drop in the supply of physicians in rural areas.[5] In at least three states, New York,[6] Minnesota,[7] and Missouri,[5] the same pattern of increase in urban areas and decline in rural areas has persisted through the early 1950's. Whether most other states also show a persistence of these trends is not known, so Michigan may be an atypical state. In any event, additional study is needed to provide a clearer picture of rural-urban shifts in the 1950's in the supply of physicians in the United States as a whole.*

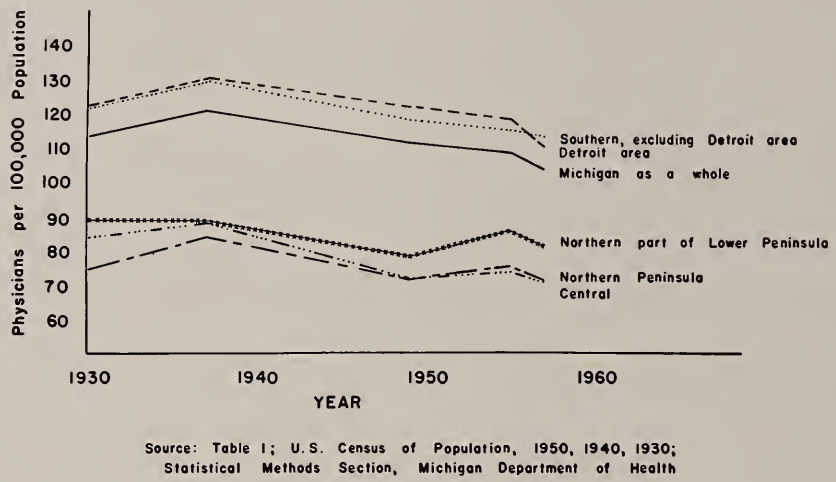

Fig. 3. Number of physicians per 100,000 population by geographic region, selected years, 1930, to 1957.

While the decline in the physician-population ratio exhibited by the state as a whole was found in both the rural and urban regions of Michigan, there has been a wide and consistent difference between the two southern urban regions and the three rural regions in their physician-population ratio. The three rural regions of Michigan clearly show a greater need for additional physicians.

Previous authors have noted that the physician-population ratio of an area tends to vary with its per capita income. In general this holds for Michigan, but there are some exceptions. The Central region with the lowest physician-population ratio has a moderately high per capita income. The northern part of the Lower Peninsula with the lowest per capita income, has a moderately high supply of physicians and its supply appears to be improving.

Age of Physicians

The maldistribution of physicians between urban and rural areas is believed to be aggravated because rural physicians are older and therefore less effective than urban physicians. Mountin and Pennell found that in 1938, physicians fifty-eight years of age and over constituted 45 per cent of the physicians in rural counties of the United States and only 23 per cent in metropolitan counties.[10] In Michigan in 1930, physicians were found to show approximately these same rural-urban age differences.[4] In the two most rural regions of the state, the Northern Peninsula and the northern part of the Lower Peninsula, 38 per cent and 48 per cent of the physicians in active private practice were fifty-five years of age and over. The corresponding figure for Wayne County was 21 per cent.

Twenty-five years later these rural-urban age differences among Michigan physicians had disappeared. In 1955, the age of physicians in the Detroit area was about the same as the age of those in the Northern Peninsula. Physicians fifty-five years of age and over constituted 37 per cent of those in active private practice in the Northern Peninsula and 34 per cent of those in the Detroit area. In this twenty-five year period, the physicians in the Northern Peninsula maintained about the same age distribution, while the physicians in the Detroit area had acquired a progressively greater proportion of older physicians. On the other hand, the other rural region of the state,

*Until 1949, the gap between rural and urban areas in the number of physicians per 100,000 population in the United States had been widening.[5,9] However, as far as we have been able to determine, nationwide studies of this problem have not been done since 1949.

the northern part of Lower Peninsula, provided the most dramatic shift in age composition of physicians of any region in the state. In 1930, this region had the oldest group of physicians in the state, 48 per cent age fifty-five or over compared with 32 per cent for the state as a whole. By 1955, this region had the youngest group of physicians in the state, 23 per cent age fifty-five or over compared with 32 per cent for the state as a whole.

The increase in the proportion of older physicians in the Detroit area and the marked decrease in the average age of physicians in one of the most rural regions of the state are contrary to the findings generally reported for rural-urban age differences of physicians. There is some evidence that Michigan is not the only state undergoing this change. For example, recent studies in Colorado, and New York likewise show no rural-urban age differences among physicians.[6] On the other hand, it should be noted that in Missouri and Kentucky there are still differences in the age of physicians in rural and urban areas.[8] Perhaps this change in rural-urban age differences of physicians is occurring in the wealthy urban states but not in the poorer rural ones.

The reasons for this change are not entirely clear. Taking Michigan as an example, the gradual increase in the proportion of older physicians in active private practice in the Detroit area may simply be due to the recent increase in the number of young physicians in metropolitan areas in internship and residency training programs. This group of young physicians has been excluded from the count of physicians in active private practice. This may be a partial explanation. However, even when interns and residents are counted with physicians in active private practice, it is found that the proportion of older physicians in the Detroit area in 1955 is still about the same as for the state as a whole.

The present age distribution of physicians in rural and urban areas can be explained in large part by population shifts in previous decades. Rapidly growing areas attract young physicians, and areas of population stability or decline are left with older ones. In Michigan there was a concentration of young physicians in the Detroit area in 1930 as a result of its very rapid population growth in the preceding twenty years. With virtually no population growth in the rest of the state from 1910 to 1930, particularly in the rural areas, young physicians generally did not locate in out-state areas. After 1930, the rate of population increase in the Detroit area and in the rest of the state was more nearly equal. This meant that young physicians no longer settled predominantly in the Detroit area. In addition to this change in the location patterns of young physicians over the past twenty-five years, most older physicians concentrated in the rural areas in 1930, had died by 1955. The physicians who were young in 1930 and concentrated in the Detroit area have remained in Detroit and are now in the older age group. Thus, the recent diffusion of younger physicians throughout the state, and the aging of physicians in the Detroit area has led to an older group of physicians for the Detroit area than for the rest of the state.

TABLE III. PER CENT OF TOTAL PHYSICIANS IN MICHIGAN IN ACTIVE PRIVATE PRACTICE BY GEOGRAPHIC REGION, 1930 AND 1955

Geographic Region and Classification of Physicians	1930	1955
Northern Peninsula		
Total physicians	233	218
Active private practice	210	175
Per cent active private practice	90.1	80.3
Northern part of Lower Peninsula		
Total physicians	170	205
Active private practice	156	167
Per cent active private practice	91.8	79.0
Central		
Total physicians	500	603
Active private practice	467	505
Per cent active private practice	93.4	83.7
Southern, excluding Detroit		
Total physicians	1,832	2,653
Active private practice	1,444	1,591
Per cent active private practice	78.8	60.0
Detroit Area		
Total physicians	2,850	4,218
Active private practice	2,448	2,793
Per cent active private practice	85.9	66.2
Michigan		
Total physicians	5,585	7,897
Active private practice	4,725	5,226
Per cent active private practice	84.6	66.2

Source: Report of the Committee on Survey of Medical Services and Health Agencies, Michigan State Medical Society, 1933; American Medical Directory, 1956.

The changes in the age distribution of physicians in the two rural regions of the state furnish an interesting contrast. In both these regions in 1930, there was a concentration of older physicians. By 1955, one of them, the northern part of the Lower Peninsula, had replaced enough of its older physicians with younger ones so that it had, on the average, the youngest group of physicians in the state. In the other, the Northern Peninsula, older physicians were not replaced as rapidly and as a result there is still a concentration of older physicians there.

There are apparently many rural areas throughout the country which are not replacing their physicians who retire or die. Further study of the two rural regions in Michigan, one of which has been able to obtain replacements for its retired and de-

TABLE IV. PHYSICIANS IN ACTIVE PRIVATE PRACTICE IN MICHIGAN BY SPECIALIZATION STATUS AND GEOGRAPHIC REGION, FOR SELECTED YEARS, 1930 TO 1955

Geographic Region and Specialization Status	1930		1949		1955	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Northern Peninsula						
Full-time specialists	25	11.9	35	19.3	36	20.6
General practitioners and part-time specialists	185	88.1	146	80.7	139	79.4
Total—Active private practice	210	100.0	181	100.0	175	100.0
Northern part of the Lower Peninsula						
Full-time specialists	11	7.1	29	18.4	44	27.2
General practitioners and part-time specialists	145	92.9	129	81.6	118	72.8
Total—Active private practice	156	100.0	158	100.0	162	100.0
Central						
Full-time specialists	41	8.8	115	24.5	162	32.1
General practitioners and part-time specialists	426	91.2	354	75.5	343	67.9
Total—Active private practice	467	100.0	469	100.0	505	100.0
Southern, excluding Detroit						
Full-time specialists	203	14.1	542	36.1	675	42.4
General practitioners and part-time specialists	1,241	85.9	960	63.9	916	57.6
Total—Active private practice	1,444	100.0	1,502	100.0	1,591	100.0
Detroit Area						
Full-time specialists	493	20.1	1,064	40.0	1,363	48.8
General practitioners and part-time specialists	1,955	79.9	1,599	60.0	1,430	51.2
Total—Active private practice	2,488	100.0	2,663	100.0	2,793	100.0
Michigan						
Full-time specialists	773	16.4	1,785	35.9	2,280	43.6
General practitioners and part-time specialists	3,952	83.6	3,188	64.1	2,946	56.4
Total—Active private practice	4,725	100.0	4,973	100.0	5,226	100.0

Source: Report of the Committee on Survey of Medical Services and Health Agencies, Michigan State Medical Society, 1933; American Medical Directories, 1950 and 1956.

ceased physicians, and the other of which has been less successful, might provide some clues as to why some rural areas are able to replace their physicians and others are not.

Type of Practice

Table III indicates the changes which took place from 1930 to 1955 in the proportion of all physicians who were in active private practice in the several regions of Michigan.* For the state as a whole, there was a decline in the proportion of physicians in active practice from 85 per cent to 66 per cent. This decline occurred in all regions, but it was most marked in the two southern ones. By 1955, the differences which had existed earlier between the three northern rural regions and the two southern urban regions had become pronounced. In large part, this was due to the increase in the number of interns, residents, and physicians who are full-time hospital employes in these more urban regions.

Table IV shows the proportion of the physicians in active private practice in each region who were full-time specialists in 1930, 1949, and 1955. There has been an impressive growth in specialization among Michigan physicians during the last twenty-five years. From 1930 to 1949, the proportion of Michigan physicians who were full-time specialists increased from 16 per cent to 36 per cent. In the next six-year period the trend toward increasing specialization did not slow down as some had hoped, and by 1955, 44 per cent of all physicians in Michigan in active private practice were full-time specialists.

The trend toward specialization in medical practice is by no means limited to urban areas. From 1930 to 1955, there were marked increases in the proportion of full-time specialists, even in the most rural regions. However, specialization is a more prominent feature of urban practice, and full-time specialists are more concentrated in the two urban southern regions. Table IV shows the close correspondence between the degree of rurality of a region and the proportion of its physicians who are full-time specialists. Almost half the physicians in active private practice in the Detroit area were full-time specialists in 1955.

In Michigan, as in the rest of the country, the American Specialty Boards are occupying an increasingly important role in the definition of full-time specialty practice. More than half the full-time specialists in active private practice in Michigan in 1955, were certified by American Specialty Boards, and the proportion of full-time specialists with such certification is about the same in the several regions of the state.

Table V shows the number and type of Board certified specialists in active private practice in each region in 1955. In the two most rural regions in Michigan, there were no Board certified specialists in urology and in dermatology and syphilology, neuro-

*The number of physicians in active private practice in 1955 was obtained by deducting from the total number of physicians the following: (1) those with a hospital address (for the most part interns and residents); (2) those in full-time teaching, research and administration; (3) those who have retired; and (4) those "not in practice."

logical surgery, thoracic surgery, plastic surgery, and physical medicine and rehabilitation. Moreover, there was only one Board specialist in private practice for both regions in each of the following: psychiatry and neurology, anesthesiology and proctology. Sparsely settled rural regions isolated from metropolitan centers might not be expected to support such "super-specialists" as neurosurgeons, plastic surgeons and thoracic surgeons. However, there are over half a million people to be served in these two rural regions and the need for a full complement of adequately trained physicians in the more frequently used specialties is a problem which should be faced.

TABLE V. BOARD CERTIFIED SPECIALISTS IN ACTIVE PRIVATE PRACTICE IN MICHIGAN, BY SPECIALTY AND BY GEOGRAPHIC REGION, 1955

American Specialty Board	Number of Board Certified Specialists					
	Northern Peninsula Region	Northern Part of Lower Peninsula Region	Central Region	Southern, Excluding Detroit Area Region	Detroit Area Region	Total
Internal Medicine	1	5	9	52	113	180
Surgery	3	5	9	55	101	173
Obstetrics and Gynecology	2	1	9	30	101	143
Ophthalmology	6	5	18	47	63	139
Pediatrics	2	2	9	44	75	132
Radiology	7	6	10	27	43	93
Psychiatry and Neurology	—	1	3	18	61	83
Otolaryngology	5	—	10	18	37	70
Orthopedic Surgery	1	2	7	18	29	57
Urology	—	—	3	13	24	40
Dermatology and Syphilology	—	—	2	8	23	33
Anesthesiology	—	1	1	8	12	22
Pathology	1	3	2	3	7	16
Neurological Surgery	—	—	1	5	7	13
Proctology	—	1	2	2	4	9
Thoracic Surgery	—	—	—	2	5	7
Plastic Surgery	—	—	—	4	3	7
Physical Medicine and Rehabilitation	—	—	—	—	3	3
Not Classified	—	—	—	2	—	2
Total	28	32	95	356	711	1,222

Source: American Medical Directory, 1956.

Summary

Rural-urban differences in the distribution of physicians in Michigan can be summarized as follows:

1. The inequality in the supply of physicians in rural and urban areas in Michigan, noted in 1930, has persisted for the last twenty-five years. Unlike some states, where the disparity in the supply of physicians between rural and urban areas has increased in recent years, in Michigan the differences between rural and urban areas have remained unchanged.

2. Since 1930, rural-urban age differences among physicians in Michigan have virtually disappeared. These findings do not support the widely accepted belief that rural physicians are older than urban physicians. The current age distribution of physicians in the rural and urban areas of Michigan can be explained in large part by population shifts in the state in previous decades.

3. There has been a decrease in the proportion of physicians in active private practice, and a striking increase in the proportion of physicians who are full-time specialists since 1930. Both changes are more marked in the urban regions of the state, but even in Michigan's most rural regions already almost a quarter of all the physicians are full-time specialists.

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Ten Easy Lessons on How to Land in Court

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THERE ARE, of course, countless ways in which any citizen can run afoul of the law and wind up in court. He can, for example, strangle his mother-in-law, rape the maid, burn down an orphanage, cheat on his income taxes, strike a pedestrian in a crosswalk, or operate a still in his basement—but these are all crude and unimaginative methods which hardly befit the dignity of the medical profession.

My present purpose, therefore, is to suggest to you some of the more subtle methods of submitting yourselves to dissection by a jury of your peers in the field of medical professional liability.

It is really fairly easy to become a defendant once you acquire the simple knack of it. Let me assure you that you need not necessarily be a wallflower while your more fortunate colleagues are bragging about the big verdicts that have been rendered against them. If you have never been sued, it may be merely that your technique is faulty. Just the other day a good doctor friend of mine confided to me, rather plaintively, that he had acted as an expert witness in behalf of colleagues on various occasions but had never once been sued himself. I detected a rather wistful note in his voice as though to ask, "why am I always a bridesmaid but never a bride?—Do I have legal halitosis?—Won't my best friends tell me?"

Perhaps, you too have such secret worries. If so, be of good cheer. You too can become law suit prone. It's merely a matter of knowing and following a few simple rules.

The first of these is what I like to call borrowing from the vernacular of the prize ring, the punch-and-counter-punch system. I recommend it highly to the neophyte because of its utter simplicity and completely foolproof nature. Statistics (and I ask forgiveness for using the dirty word) will show that this is demonstrably the most effective of the simple elementary methods by which you can get yourself sued for malpractice. First, all you need do is make sure that your bill to your patient is stiff enough to make him thoroughly mad. Then sue him immediately to collect it. This forces him to go to his lawyer whose first inquiry naturally is, "What defense do you have?" Now manifestly, even a second class moron knows that he is obliged to have some better reason for refusing to pay than that he doesn't like to part with money. And so, aided on occasion, as I am forced to admit, by the helpful questions and/or suggestions of one of my less scrupulous brethren at the Bar, he searches his memory and dredges up a distinct recollection that although you told him you were going to remove his tonsils, you actually relieved him of his gall bladder, besides which he is sure that a couple of sponges are still lurking in his abdomen, and he certainly couldn't have had such terrific gas pains if you had known your business. Presto, you have achieved your ambition to be sued for malpractice. Provided, of course, that you haven't dallied too long in sueing the patient. Although, under the statute of limitations you have six years in which to sue him, you must remember that he has only two years after the last treatment in which to sue you. You must, therefore, be sure to start your action within two years in order to protect his right to counter punch. Obviously, of course, the sooner you bring your suit after rendering your bill and while he is still at his boiling point, the more likely you are to be successful in keeping your suit record up and your lawyer off the welfare relief rolls.

Now the second in my list of guaranteed rules is, "never admit an error or mistake." Only the weak or the innocent do so, and they don't deserve to be sued. If the sponge count is out of balance, forget it;

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Sponges are cheap and probably won't hurt the patient anyhow. If a retractor is missing and a subsequent x-ray shows it to be in the patient's abdomen, brazen it out; He must have swallowed it. If the original diagnosis was wrong, go right ahead with the original treatment; the patient will never know the difference. He won't be able to read the autopsy report.

In cases of error or mistake, the old-fashioned fellow who has a morbid dread of being sued will probably be naive enough to go voluntarily to the patient or his family, confess his error, and by his frankness and solicitude, disarm a potential plaintiff. But not our hero! He knows that it is a human trait to sympathize with and forgive an admitted error and that his chances of being sued will be greatly diminished by any such childishly innocent approach.

The third in my list of simple rules is one of which all too few doctors take full advantage. It is, "don't be afraid to guarantee results." Innumerable proprietary concoctions can be bought in any cut-rate drug store on a "money-back" basis. Obviously, if you are to maintain your competitive position, you are practically obliged to follow suit.

Now, of course, a few of the more squeamish will permit themselves to be influenced by ethical considerations and will hesitate to put such guarantees in writing. I do not quarrel with this point of view, but assure you that it is wholly unnecessary to put your guarantees in writing in order to make them effective. Almost as good results, and frequently better, by way of inviting litigation can be achieved by keeping your guarantees on an oral basis and by purposely making them somewhat vague. This permits the patient's lawyer greater leeway in which to phrase the kind of a guarantee that he thinks his client ought to testify to, and thereby serves to broaden the basis upon which you can be held liable. Nor are any particular formal words or phrases necessary to constitute a guarantee. Simply be sure that the patient understands that he is being promised a certain result; he and his lawyer will be glad to phrase it properly for you. And, let me add, if you are apprehensive that a jury may not believe that you said it, you are worrying needlessly. The patient will probably have at least four fellow union members on the jury, and your chances of having your denial believed are much too slight to be of any real concern.

Next on my list is a simple little gadget, the use of which requires no skill, no training, and no experience. Simply let it be widely known that you carry professional liability insurance with large limits.

The beauty of this little gimmick is that it will not only invite *more* law suits but *larger* ones. Not only will it invite even your friends to sue you—since there is nothing personal about it, but it will help to bring you suits of a size that will be sure to make the newspapers. I have observed over a long period of active practice that it is a quaint quirk of human nature that the average citizen is highly insulted when sued for $500.00 but is immensely flattered if he is named defendant in a $1,000,000 law suit. The latter serves notice on the community that here is a successful man; here is no ordinary Joe who washes out his own socks in the bathroom, but a solid substantial citizen who rates being sued for real money. Besides, you have been paying premiums on your professional liability policy all these years, so why not use it?

Next we come to one of the real basics. Don't bother to get the patient's consent. You know what he needs better than he does.

Here is, indeed, a fertile field. Here is an area in which the variest tyro can get himself sued almost as easily as can General Motors Corporation.

Any doctor who can't get sued by following this little gem of advice simply has no patients. (And I spell the word with two t's.) The doctor who fails to take adequate consents to operate can be sued not only for malpractice, but for assault or breach of contract. The doctor who fails to get the patient's consent to disclosure of information about his patient can be sued for violation of the confidential relationship existing between physician and patient. The doctor who admits unauthorized observers, or takes some beautiful color photographs of that artistic incision of which he is so proud without obtaining the patient's consent can be sued for violation of the patient's right to privacy. Blood transfusions, x-ray therapy, amputations, cosmetic surgery, and countless other procedures offer grist for the law suit mill unless guarded against by sufficient and adequate consents. I stress the words "sufficient" and "adequate" because, while every doctor knows the importance of obtaining consents, a vast number use forms that are neither sufficient nor adequate. As an interesting sidelight on this subject, I recently had an inquiry from a somewhat skeptical member of a hospital medical staff in a small community outstate as to the adequacy of the consent forms, or rather, the consent form they were currently using. It seems that some genius had conceived the brilliant idea of having every patient sign one broad, general consent form which authorized any member of the staff to do anything—

medically, surgically, pathologically, chemically, biologically and/or forensically that he might then or thereafter think appropriate or advisable. The argument that ensued when I expressed the opinion that such a broad and general consent was as bad as, or worse than, none at all, has not yet completely subsided. I can assure you, however, that such general consents are open invitations to law suits for the simple reason that they leave the door wide open for a court to permit oral testimony of the patient as to what he thought, or might later choose to think, he had consented to. Whereas, if the consent is precise enough to identify the contemplated operation or procedure, he will not be permitted to dispute the writing. If you are looking for more law suits, therefore, but are too much of a sissy to eliminate consents entirely, be sure that the ones you do take are sufficiently broad and general as to serve the same purpose.

The next rule which I have to offer is closely akin to the preceding one. Never put anything in writing.

There is, in some quarters, a time-honored belief that if you don't put it in writing, it can't ever come back to haunt you. That has about as much validity as a legal principle as has that tried and true medical axiom—"feed a cold and starve a fever." Observance of this rule, therefore, will be found to be a highly valuable tool in the hands of the doctor who loves to be sued.

Just consider the infinite variety of uses to which this simple little rule can be put in the interests of keeping the courts running. It can be applied to the keeping of medical and office records since complete, well kept, accurate records are the very cornerstone of the defense to almost any professional liability suit. Conversely, the absence of or inadequacy of such records always leaves vital questions to be resolved under oral testimony which is notoriously open to attack as inexact, uncertain, biased, or just plain false. Some of you, of course, are just confirmed record keepers and will find it difficult to break the habit. If you are of that class, but still yearn to be a defendant, I suggest that you destroy your records as soon as they have passed the ripe old age of two years, particularly those pertaining to the treatment of children. The value of this practice as a law suit breeder is well illustrated by the case of the doctor who some seventeen years before had reduced a simple fracture on a five-year-old boy. Believing implicitly in the efficacy of the two-year state of limitations, he had long since discarded his old records. Upon being sued after the boy had reached twenty-one years of age, he could not even recall the incident and was quite chagrined to learn that in the case of a minor, the statute of limitations does not begin to run until he has attained majority. Actually, of course, the running of the statute of limitations, even as to adults, can be interrupted or affected by many factors including concealment of a cause of action, absence from the state, et cetera, with the result that, in many cases, the older a record is, the more vital it is to the successful defense of a law suit.

You will find, also, that the "never put anything in writing" rule will pay dividends if applied on a broader scope than the mere keeping of medical and office records. It can be applied to any number of situations which arise not uncommonly in the physician-patient relationship, for example, the letter to the patient who fails to keep an appointment, the letter to the patient who fails to follow your advice, the letter to confirm that the patient has discharged you, the letter confirming your own withdrawal from the case, and many others.

Now I suggest that you will find the rule against putting anything in writing doubly effective if you will combine it with the next suggestion which I have to offer: never attempt to explain anything to a patient; he won't know what you're talking about anyhow.

I dare say one of the most common mistakes that is made by the doctor who can't seem to acquire the know-how of getting sued is that he tends too much to put himself in the patient's place. In other words, he puts too much trust in the old fashioned golden rule. He makes it a practice to explain patiently and in language that the layman can understand just what the patient's condition is and what he, the doctor, is trying to do about it. He makes the unpardonable mistake of being frank and open and, thereby, of making it embarrassing for his patient to sue him. In short, he creates and fosters an atmosphere in which it is difficult for the seed of litigation to sprout and thrive.

I believe it can be said fairly that medical professional liability claims and suits fall into three categories. First, those in which, legally and morally, there is liability. Second, those in which there is no liability and the patient knows there is no liability, and third, those in which there is no liability but the patient honestly thinks there is. It is in this last category that you have the really golden opportunity to improve your suit record by a hard-boiled-explain-nothing policy. Now, of course, you may ask, "but what if the patient asks questions?" The answer to

that is simple. By a little practice, you will find that you can answer such a nosey character in such highly technical language and with such an extremely superior air that you can practically force him to borrow the receptionist's phone on his way out in order to make an appointment with his lawyer.

We come now to the basic rule which I guarantee will bring you your fair share of law suits if all else fails. It is simply this: stick to the old tried and true methods that you learned in medical school—avoid all "new fangled" procedures.

A succinct definition of medical malpractice is this: "Malpractice may be defined as the failure of a physician to exercise the required degree of care, skill and diligence or the treatment or care of a patient in a manner contrary to accepted rules and with injurious results to the patient."

Although malpractice is generally associated with negligence, it is not necessarily limited to negligent acts or omissions but may result either from lack of knowledge, lack of skill, or neglect to apply it. It may be either willful, negligent or ignorant. This legal requirement of skill and care is not a fixed or static one but is rather one that is comparative or relative. A physician or surgeon is not required to possess extraordinary skill nor is he held to the very highest degree of care possible. The law recognizes that he is possessed of human frailties and subject to the commission of human mistakes and errors in judgment. He is not, however, permitted to be ignorant. The degree of knowledge and skill which he is required to possess is always related to the state of medical or surgical science at the time.

If, therefore, all else fails to bring you before the Bar of justice, you will find comfort in the knowledge that you can solve the problem by the simple expedient of closing your eyes, ears and minds to the progressive changes which mark the steady and swiftly moving advancement of medical science.

Next, we come to an infallible self-executing rule of wide scope and application. Don't waste your money on efficient help and good equipment. Save it for use in paying the judgments which will surely follow adoption of this policy.

There is a rule of law known among lawyers as the doctrine of respondent superior. It means simply that the employer is legally responsible for the acts of his employes. It should be quite apparent, therefore, that by employing inexperienced and inefficient receptionists, technicians and nurses, furnishing them obsolete or faulty equipment, assigning duties to them for which they are not fitted by temperament or training, and leaving it to them to carry out those duties and responsibilities without supervision, you will be rewarded, not only with more law suits, but with a greater diversity.

I particularly recommend this policy to the indolent. It has the great advantage of working while you sleep or play. While the less successful doctor is earning his law suits the hard way by making his own mistakes, you can be out on the golf course with full confidence that the hired help is taking care of earning yours for you.

And now in conclusion, I want to offer a thought in behalf of those of you who do not have the "do-it-yourself" knack. There may even be some among you who are old fashioned enough or conservative enough to be content to go through life without having your day in court. You may be the shy, bashful type who doesn't enjoy the spotlight of publicity. You may be the miserly type who prefers to keep his money rather than to share it with disgruntled patients and altrustic lawyers. Or, let's face it, you may be simply the unimaginative type who lacks the ingenuity to get himself into trouble. Under today's modern "share the wealth" philosophy, this presents an intolerable situation and I am gratified that I can offer a solution. It is merely this: just relax and let one or more of your professional brethren take over.

Not only is this method practically sure fire, but it possesses an aesthetic value that is so often lacking in the more crude methods. It appeals to the virtuoso in each of us. It permits a versatility that is almost unlimited. It allows a range, for instance, all the way from a candid, forthright expression of opinion such as "what! that frustrated butcher!—why, I wouldn't let him excise a hang nail on my cocker spaniel," down to the really subtle stab in the back, such as, "Oh, Dr. Jones, A fine surgeon, but . . ."

What a wonderfully versatile word is that little three-letter word "but." It is capable of conveying an infinite variety of nuances, a sly little word but one with a truly shattering impact when used by the expert, and a veritable godsend to those members of the profession who dedicate themselves to spreading the benefits of litigation among those of their brethren who lack the capacity to get into trouble on their own.

And thus, my friends, endeth the lesson. I have offered you nothing new, nothing novel. I can assure you, however, that all my recommendations have withstood the acid test of time, and I am willing to stake my professional reputation, if I have any left after this presentation, on the promise that if you will apply them—I'll see you in court.

Low Back Pain and the Fibro-Elastic Diathesis

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THIS PAPER does not presume to submit a new cause for backache. The already long list needs no additions. One particular group, however, the so-called postural backaches, are poorly defined, poorly understood, and thus are often inadequately treated. The general practitioner, even more than the orthopaedist, is frequently confronted with this distressing complaint. The concept of the fibro elastic diathesis permits a rational approach to this problem. An awareness of the basic diathesis will enable the physician to solve expeditiously many otherwise obscure back disorders. This will prove most satisfying to the patient as well as to his family doctor.

Ehlers in 1899 and Danlos in 1908 described the clinical entity subsequently known as the Ehlers-Danlos Syndrome. Further reports appeared in the following years. The basic features are outlined in Table I.

TABLE I. THE EHLERS DANLOS SYNDROME

A.	Hypermobility of joints
B.	Skin manifestations:
	1. Hyperelasticity
	2. Gaping wounds following minor injuries resulting in papyraceous scars
	3. Ease of bruising due to fragility of subcutaneous blood vessels

Dr. Carl Badgley and the author have been particularly interested in this problem for some years. A thorough review of the reported literature and careful analysis of our own case material have convinced us that the Ehlers Danlos syndrome is the rare and severest form of a common constitutional type. This we have designated the "fibro elastic diathesis." The various clinical manifestations of this diathesis will be more comprehensively presented in another paper.

Before proceeding to the specific role of this entity in back problems, it may be helpful to point out certain general features of the fibro elastic diathesis.

Etiology.—The exact etiology is unknown; however, it is probably a developmental error in the mesenchymal germ layer which results in a relative increase in the elastic tissue component of connective tissue. This elastic tissue increase produces symptoms in two general areas—the dermis and joints.

Involvement of the skin produces various phenomena as hyperelasticity, ease of bruising, and, more rarely, papyraceous scars and pseudo-tumors. Particularly pertinent to our discussion are the changes in the periarticular structures. An increased proportion of elastic tissue in these supportive structures permits an increased range of joint motion and this diminished stability may produce symptoms. Table II enumerates the more common symptom patterns. It will be noted that this basic diathesis permits the correlation of a number of scattered complaints into a single working scheme.

TABLE II. SYMPTOMS ARISING FROM JOINT HYPERMOBILITY

(In order of frequency)

1. Relaxed feet
2. Backache
3. Postural defects
4. Recurrent dislocations
   (a) patella
   (b) shoulder
5. Snapping joints
6. Recurrent ankle sprain

There is a strong familial tendency and a positive family history is usually elicited if the patient is carefully questioned. This mesenchymal disturbance seems to be inherited as an incomplete dominant.

Joint hypermobility is the most constant feature of the diathesis and, in the vast majority of cases, is the primary cause of symptoms. It is essential that the physician familiarize himself with the normal range of motion in the major joint systems. Only thus will he learn to evaluate the minimal but clinically significant degrees of hypermobility. Marked variability is noted in the number and combinations of joints involved. The degree of mobility in symmetrical joints is remarkably constant. This phenomenon is more apt to occur in the foot, wrist, and spine, in which areas the total motion is the aggregate of the motion in several individual joints. It is not surpris-

ing that complaints are usually directed at the weight bearing joints of the lower extremities and spine.

Pathology.—Normal fibrous or connective tissue has two components: (1) the elastic fibers which give the body tissues their mobility and extensibility; (2) the collagenous or ground substance which, in contradistinction, gives the body its stability and form. These two components are present in the periarticular ligaments and capsular structures in such proportion as to give each particular joint optimal flexibility and yet stability.

A section of skin from a markedly hyperelastic individual, if treated by the Verhoeff staining technique will demonstrate the increase in elastic fibers. This technique is less successful in demonstrating the morphological changes in periarticular structures. A more accurate and specific method, possibly quantitative, is necessary to clarify the pathology of the hypermobile joint.

Backache and the Fibroelastic Diathesis

Let us now direct our attention more specifically to the role of this diathesis in common back problems. Table III gives an overall picture of the incidence and relative frequency of symptoms. It will be noted that almost 85 per cent of patients in this series came in with foot or back problems. Actually the great majority of foot cases occurred in children whose parents were concerned solely by the appearance. Rarely were the feet symptomatic. The foot aspects of this diathesis will be discussed in another article. Thus the low back is by far the most common site of symptoms in this diathesis.

TABLE III. INCIDENCE OF THE DIATHESIS

Consecutive orthopaedic patients	12,000
Symptomatic cases of fibro-elastic diathesis:	
Foot abnormalities	280
Low backache	225
Others	95
Total	600

Hypermobility of the spinal segments is presumably due to a relative increase of the elastic fiber content in the interspinous ligaments, ligamentum flavum, the intervertebral facet capsular ligaments, the longitudinal ligaments, and possibly in the annulus fibrosis. All of these soft tissue structures act as limiting or check devices to excessive spine motion. Investigative work along this line is needed.

In most individuals, the hypermobile spine is an incidental finding and does not produce symptoms. The presence or absence of back symptoms depends not so much on the degree of hypermobility as on the degree of compensation of the secondary stresses. If these abnormal stresses are not balanced structurally

Fig. 1.

—or compensated—then an extra burden is shifted to the reinforcing spine musculature. A fatigue reaction results in these muscles and the patient subjectively experiences a backache.

Analysis of Series

A review of 12,000 consecutive patients seen in a private orthopaedic practice revealed that the fibro elastic diathesis was the primary problem in 600 cases. This represents an incidence of about 5 per cent or one in twenty patients. This figure does not include the many patients in whom this diathesis is an incidental finding.

It should again be emphasized that the low back is by far the most common site of symptoms in the fibro elastic diathesis. Of the 600 symptomatic cases of fibro elastic diathesis, 225 cases registered low-back pain as the chief complaint. In 171 of these there was no other related pathology. In the other fifty-four cases, the back symptoms resulted from a combination of the diathesis and organic pathology

such as disc disruptions, trauma, spondylolysis, et cetera.

The gentleman who defined woman as "a biped with backache" may not be entirely wrong. Women were afflicted in our series in a ratio of 4 to 1.

Fig. 2.

Clinical Features.—The typical patient is a woman between twenty-five and thirty years of age with a long history of chronic recurrent low backache. Leg radiation, if present, is of the dull, referred, non-radicular type. Localized lumbo-sacral pain appears with excessively heavy work and toward the end of a normal day. The fixed semiflexed attitudes assumed in ironing, vacuuming, dishwashing, and typing are poorly tolerated. Relief comes with change of position or recumbency. Any fixed attitude quickly exhausts the low postural reserve so that ease of fatigue is a common complaint. It is readily seen why these individuals are often summarily dismissed as neurotics.

A careful back examination will reveal certain characteristic findings. Various postural inadequacies may be noted. Despite admitted back pain, this individual will flex forward and with knees extended will readily touch his palms and even his wrists to the floor (Fig. 1). Another reliable diagnostic point is the ability to approximate the patient's elbows behind his back (Fig. 2). An increased range of motion in other planes is also noted. In the absence of other specific back pathology, the orthopedic leg signs are normal and no neurological changes are found in the lower extremities. Related manifestations of the fibro-elastic diathesis such as extra-spinal joint hypermobility, pronated or relaxed feet and skin hyperelasticity are frequently present (Fig. 3).

Low backache of this type is prone to occur in certain occupations where postural demands are excessive. Among these are heavy manual labor, farming, stenographic work, and certain industrial situations. The industrial physician must use care in assigning individuals of this diathesis, particularly women, to "production" or other situations requiring fixed attitudes or repetitive maneuvers over protracted periods.

Postural stresses on this basis are less frequently seen in the thoracic and cervical areas but are not pertinent to the present discussion.

Fig. 3.

Treatment.—The emphasis in treatment is conservative and is based on accepted orthopaedic principles. The following points should be given attention:

1. Any concomitant pathology must be evaluated and treated on its own merits.

2. Reassurance that he possesses a "certain build" suffices as treatment for many patients who are much relieved to know that their lack of endurance and chronic discomforts are not signs of early cancer or other serious disease.

3. Specific exercises to correct postural faults and to over-develop hypotonic muscles is most important.

4. The use of a firm mattress or bedboards and regular adequate hours of sleep permit fatigued muscles to recoup their strength.

5. Foresight in selecting suitable occupations may preclude later trouble. Stenographers and others maintaining fixed postures are cautioned to periodically change position and stretch their muscles.

6. Some type of back support is occasionally necessary to interrupt the pain cycle. This device should be used with caution where no other primary pathology is present as it may contribute further to muscle atrophy and "decompensation."

7. Obesity must be corrected since it accentuates the postural problem.

Discussion

Rotoscoliosis was a frequent observation in this series of 225 fibro elastic backaches. Forty-five cases demonstrated this finding clinically. Although we have been impressed with the high incidence of the fibro elastic diathesis in idiopathic rotoscoliosis, a true causal relationship has not been established.

A review of the aforementioned 12,000 orthopaedic patients uncovered eight cases of osteitis condensans ilii. This obscure entity has been generally suspected to be of postural origin. The fact that four of our eight cases occurred in the group of 225 fibro elastic backs would lend support to this belief. No relationship between this diathesis and intervertebral disc disruptions is apparent from this study.

Conclusions

1. The basic concept of the fibro elastic diathesis has been presented and its role in low back problems discussed.

2. A review was made of a series of 225 patients in whom the fibro elastic diathesis produced low backache. Pertinent clinical features were emphasized.

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Persons Over Forty Need Glaucoma Examinations

Examination for glaucoma, which may lead to blindness, should be an "indispensable" part of all physical examinations of persons over forty years, report five Memphis doctors.

Persons with chronic diseases, such as hardening of the arteries, high blood pressure or arthritis, especially should be examined for the disease, the doctors said. (*Journal of the American Medical Association*, October 24, 1959).

A simple test, tonometry, can show the presence of glaucoma.

The doctors reported a study of 13,155 persons in hospital and nonhospital groups during a two-year period. Tonometer testing revealed 271 cases of subclinical glaucoma not under treatment. During the same period 62 persons who visited the ophthalmology clinic at the teaching hospital of the University of Tennessee College of Medicine were found to have the disease.

The highest rate of glaucoma was found in residents of a home for the aged, where 6.4 per cent of those examined had the disease. The next highest rate (3.4 per cent) was in Negro women visiting outpatient clinics and in Negro men engaged in occupations involving considerable manual labor (3.1 per cent).

The lowest rate was in white women who engaged in occupations requiring "discriminatory visual activity," such as teaching or department store clerking, the doctors said. Their low rate may result from the fact that they have frequent eye examinations and glaucoma is discovered early.

In general, the study produced three conclusions: glaucoma occurs more frequently as age increases; it occurs more frequently in Negroes than in white persons, and there seems to be an association between the disease and other chronic diseases, such as arthritis or high blood pressure.

The authors are Drs. Henry Packer, Alice R. Deutsch, Philip M. Lewis, Claude D. Oglesby, and A. C. Cheij.

Preferably, antibiotic therapy should be based on pretreatment culture of the offending pathogen, but in bacterial pneumonia the problem may well be too pressing to permit the required delay of 24 to 48 hours. A differential diagnosis among bacterial pneumonias, based on such clinical grounds as speed of onset, sepsis and pain may guide the choice of antibiotic for initiation of therapy.

Should clinical judgment dictate that antibiotic therapy be started immediately, at the same time a sputum sample or a subglottic swab can be sent to the laboratory for culture and sensitivity studies. If the response to the first antimicrobial agent proves unsatisfactory, a reasonable basis for changing therapy will then be at hand.

Choosing the Antibiotic

Since therapy must be started at once for bacterial pneumonia, it is advisable to choose a broad-spectrum antibiotic that quickly produces high levels of active agent (e.g., tetracycline phosphate complex, TETREX). Such an antibiotic probably has the best chance of controlling the pathogen, whether it be gram-negative or gram-positive. And if the laboratory report shows that the invading organism is much less sensitive to tetracycline than to other agents, the patient can then be changed to an appropriate antibiotic. If the difference in sensitivity is slight, then the possibility of side effects, sensitization, and toxicity should be evaluated before changing therapy to another antibiotic.

The greatest number of bacterial pneumonias are caused by pneumococci, which respond very well to penicillin, tetracycline, and chloramphenicol. Also, these antibiotics are usually effective against the other gram-positive coccal pneumonias. But penicillin is ineffective against the viral pneumonias and the gram-negative *Hemophilus influenzae* and *Klebsiella pneumoniae*. Although *K. pneumoniae* causes only about 1 to 2 per cent of pneumonia cases on the average,[1] these are apt to be acute and fulminating (Friedländer's pneumonia), with a high mortality rate if not effectively treated. Since pneumococcal pneumonia may be difficult to distinguish clinically from Friedländer's, except by gram-stained sputum smear, it may be wiser to start treatment with an agent also effective against Klebsiella.

Penicillin, however, in addition to having a limited spectrum, also causes many minor and some serious sensitivity reactions. In a recent survey[2] it was found that penicillin produced severe skin reaction. But most important was the observation that anaphylactic shock, with a fatality rate of about 9 per cent, was the most frequent serious reaction. Such severe reactions are almost always associated with parenteral administration.

Tetracycline is also clinically effective in primary atypical pneumonia.[3]

The tetracyclines (e.g., TETREX) have the advantage of a broad range of antimicrobial activity and low toxicity. And in addition, the physician does not have to trouble himself or his patients with repeated blood studies when he prescribes TETREX. Minor reactions such as gastric upsets or mild skin rashes occur occasionally. The most serious side effects are staphylococcal and monilial overgrowth, but these are rare and can be adequately controlled.

No one would deny that appropriate antibiotic therapy has greatly reduced morbidity and saved many lives of patients with bacterial pneumonia. Nevertheless, general supportive measures in the care of patients remain important even today. Especially in the desperately ill patient, antibiotics are not considered as substitutes for the individual evaluation, clinical observation and judgment of the physician.

Some Micro-organisms Susceptible[a] to Tetracycline (TETREX)[b]

Streptococcus; Staphylococcus; Pneumococcus; Gonococcus; Meningococcus; *C. diphtheriae; B. anthracis; E. coli;* Proteus; *A. aerogenes; Ps. aeruginosa; K. pneumoniae;* Shigella; Brucella; *P. tularensis; H. influenzae; T. pallidum;* Rickettsiae; Viruses of psittacosis and ornithosis, lymphogranuloma inguinale, primary atypical pneumonia; *E. histolytica; D. granulomatosis.*

a Some strains are not susceptible.

b Table adapted from Goodman, L. S., and Gilman, A.: The Pharmaceutical Basis of Therapeutics. 2nd edition, New York, The Macmillan Co., 1956, pp. 1322-1323.

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run-down and emaciated, suffering from a multitude of diseases which could only be diagnosed and treated in the hospital. But this woman had no one she could bring with her to prepare her food according to the dictates of her religion for local custom decrees that each patient bring with him his own cook. The food from the central food service was prepared hygienically, according to Western standards, but was not ceremonially clean according to her religious standards. She therefore refused to be admitted to the hospital. So here we have a paradox: a hospital motivated by religion in the best Judeo-Christian tradition not able to carry out a healing ministry because of the religious scruples of the would-be patient.

During the time that I was in Puerto Rico as a missionary doctor I saw many similar examples. Often we would get a patient, who was in an advanced stage of a gastro-enteritis, or some malignancy, carried down from the hills in a hammock slung under a heavy bamboo trunk carried on the shoulders of two barefooted men. We always inquired why the family had delayed so long before bringing the patient in. Often we got the answer that the patient had first been taken to an "Espiritista," a faith healer off in the hills who had tried the various strategems of his art for many weeks. Thus valuable time was lost since the patients almost invariably deteriorated under this neglect. However, in all candor, we must admit that whatever successes these "Espiritistas" had, found no need to come into our hospital!

Incidentally, I would not hesitate to recommend to any of you that you devote a period of your life to work in a mission hospital. The three years that I spent at Ryder Memorial Hospital in Puerto Rico were a source of many enriching experiences.

At one time while I was in Puerto Rico, the island was visited by an evangelist-healer from the States. Although his English had to be translated sentence-by-sentence for his Spanish-speaking audience, he drew great crowds and was acclaimed in the local newspapers as something of a miracle-worker. The deaf would seem to hear, and the lame discard their crutches. We do not have medical authentication for his so-called cures, and there was much muttering among the people about phantom illnesses and publicity-seekers. Yet in the wake of his visit there, several "splinter" churches were organized which carried on whatever it was that he was doing.

In recent months we have heard more and more about Lourdes, France, and the miracles of healing said to occur there. Alexis Carrel, writing in 1935 in his book "Man, the Unknown," devoted considerable space to an admiring discussion of these cures. There even has been a Medical Association set up there to record and authenticate these occurrences. The lay press has often acclaimed the cures reported there, but these more sober and critical observers list about forty cures that they cannot explain except as miracles.

Many of you probably read the dramatic story in the August 1953 *Reader's Digest* which described how Bob Stout, of Locust, New Jersey, was involved in a train wreck which resulted in his being in coma for several days. He was going steadily downhill when an exploratory trephine was proposed as an emergency measure on Sunday morning. As this was going on, the minister of the local Methodist Church where Bob was a member paused during the morning worship service for a special prayer for the healing of the comatose man. At the close of the service he got an excited phone call from the wife of the injured man saying that he had suddenly responded to stimuli and opened his eyes for the first time in five days. The time of his improvement coincided exactly with the time of the special prayers on his behalf.

One of the co-authors of this article, Mr. Edward S. Zelley, Jr., later wrote in the Christian Century about the public reaction stirred up by the earlier Reader's Digest article. It seems that many church people felt that their own local ministers had been letting them down by not employing so potent a healing force as prayer. The writer of the article concluded that all of the major denominations were falling short of the goal set by Jesus when he advised his followers not only to preach the word, but to heal the sick.

What are we going to think about these so-called "miracle-cures?" Granted that there are a number of quacks, cranks, and publicity-seekers who become involved in cures of this type for ulterior motives, yet, we must recognize that our limited knowledge of human physiology does not seem able to explain all such cases. Perhaps later discoveries in this field will make clear things which now are hidden. If faith in God can be a potent means of healing, the careful physician will pay due attention.

However, we do not all need to go to the extremity of our Christian Scientist brethren who maintain that "Sin, sickness and death are unreal." We do not often have contact in our practice with those who espouse this faith, but my esteemed colleague, Dr. C. Howard Ross, relates how a patient of his once

suffered a crushing chest injury and was rushed to St. Joseph Mercy Hospital. Here the depressed sternum was forced back into its normal place, allowing the mediastinal structures to resume their normal function. But then in addition to the standard and accepted supportive therapy, the patient asked for and received permission to have her Christian Science worker visit her each day. She continued to make good progress. When the happy day of discharge arrived, the attending physician and the sister on the floor and the Christian Science worker shared tea with the patient and rejoiced in her good recovery. When the attending physician, in an expansive mood, attributed the cure to the Christian Science worker, she turned to Dr. Ross and said, "You lie so beautifully!"

Whatever our feelings about Christian Science, we must give them credit for their good intentions in trying to reform Christianity and for drawing attention to Christian healing.

Many of us have seen the silent agents of the Jehovah's Witnesses sect standing on streetcorners, offering copies of their magazine, "Watchtower." Among the points with which they take issue with society are war, the schools, the pledge of allegiance, and also a lesser known one, blood transfusion. These people believe that at the second coming of Christ, when there is resurrection of the body, it will be very difficult for a person to be resurrected whose bloodstream has been contaminated by the blood of another person. Perhaps the Resurrecting Power would be unable to tell them apart. At any rate, a recent patient of this faith had a carcinoma of the thyroid. Her low hemoglobin did not permit surgery, and her faith did not permit transfusion. So she carried her carcinomatous thyroid to the grave with her.

Regarding death itself, the Reverend Das Kelly Barnett had some interesting observations in his valuable paper in the September, 1956 issue of G.P. The Christian physician, says Barnett, need not try to shield his patient from the pangs of death, for Jesus has already done that for him. Barnett further says that Jesus not only healed the blind and deaf and lame, but unique among other healers, sought to close the breach which separated men from men, and men from God.

The relations between religion and medicine have had a rather chequered history. The doctor-priest of Egypt, Imhotep, has already been mentioned. Jumping to the third century A.D., we find that the world's first charity hospital was started by Fabiola, a deaconess of the Church. Turning to the last century, we are aware of the heated controversy which raged between some church bodies and the scientific teachings of evolution. Yet, in our day, we have come to see official church pronouncements not only recognize the teachings of science, but respect new discoveries as further revelation of the work of God.

Medicine and religion in our day enjoy closer relationships. About eleven per cent of the physicians graduated each year from American medical schools come from church-related medical schools. One thousand hospitals in this country are operated by church agencies. My good Methodist friend, Dr. Merrill Abbey, tells me that the Methodist Church alone operates seventy-two hospitals, with a bed capacity of over 18,000, and also runs fifty-two schools of nursing.

Many voices of our day are raised in favor of closer working relationships between medicine and religion. In 1958, Dr. Dana L. Farnsworth, Director of the Health Service at Harvard University, stated that many emotional disturbances in college students could be traced to the unguarded, derisive comments about faith, and religion by some of the faculty people. About one in ten college students become seriously enough disturbed mentally to require professional help, Dr. Farnsworth claims. Not that one's religious outlook should not be stretched by the college experience, but that needless flippancy and lack of respect serve no creative educational purpose and contribute to emotional upsets.

In 1925, Anton Boisen initiated a program of clinical training of theology students at Worchester State Hospital in Massachusetts. Since then the plan has spread widely, with the result that recently-graduated ministers need no longer preach about pain and death with only an academic acquaintance. Such clinical training has also involved instruction in counselling techniques. Such techniques have been very valuable to ministers seeking to aid our neurotic society. However, this presumes a certain amount of emotional soundness on the part of the minister. The Reverend Frank Nestler of Charleston, Illinois, tells the story of the minister who had been working very hard at the various projects around his church. His zeal in "pushing" the several programs of his church had caused him to lose much sleep, and there was some question about how well he was bearing up under the strain. Suspicion of a mental breakdown was further enhanced when he started to disappear late every afternoon at about the same time. He would leave his office, say nothing to anyone, and then drop completely out of sight. The District Superintendent

became so concerned that he came to the town to investigate, and as the minister left the office one afternoon, the District Superintendent trailed him at a distance. At the edge of town, on a bluff overlooking the river and the railroad tracks, the trail came to an end. As the minister sat in quiet contemplation, the District Superintendent concluded that this was not such a crazy action after all, so he approached the minister and told him about his concern for the minister's mental health. So the minister promptly set him straight, and said that his apparent search for contemplation really had a different motive. "I know," he said, "that if I come down here at 5:05 every day I can see the Limited come by out of Chicago, and I just *have* to see something move that I don't have to *push!*"

The Roman Catholic code of medical ethics is based on various papal pronouncements, and voices clear opposition to such things as abortion, artificial insemination, and contraception, although some recognition is given to the rhythm method. Euthanasia also is opposed, not only by Roman Catholics, but by many Protestant church bodies as well, and several Hebrew congregations.

The Roman Catholic Church has made a very notable contribution in the care of the sick in that, because of their particular application of the Judeo-Christian teachings, they have placed a tremendously high valuation on each individual person. Looking around us, we find a high proportion of homes and institutions for the medical outcasts, and incurable, or scarcely curable operated by agencies of the Roman Catholic Church. Their special motivation makes this possible.

Most Protestant denominations do not oppose contraception, many of them feeling that an argument could be made for quality, in preference to sheer quantity. Many of them do not oppose therapeutic abortion, although they would not be pleased to see abortion reach the prevalence it has in Japan where about half of pregnancies are thus terminated. Sheer multiparity is given more weight in supporting sterilization in the view of many protestant denominations.

Regarding the position of a protestant physician practicing in a Catholic hospital, I must say that I had some uneasy moments before I came to Ann Arbor, chiefly because I knew very little about Catholic hospitals. I am happy to say that in the period of over three years that I have been here, I have found very little to differ with, and many things which are praiseworthy. The warmth of human kindness and concern is scarcely found in other hospitals.

Looking to the future, I feel that both medicine and religion will undergo fewer areas of conflict, and increasingly greater areas not only of agreement, but mutual help.

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Research Grants in Tobacco

Forty-one grants-in-aid were made in 1959 to independent research scientists by the Tobacco Industry Research Committee. Another $500,000 was added to the TIRC's research funds, bringing the total to date to $3,700,000. The TIRC was established in 1954 to support research by independent investigators into questions of tobacco use and health.

Grants last year were awarded to twenty-two scientists undertaking new research projects approved by the Scientific Advisory Board to the TIRC.

Those from Michigan receiving grants were:

Edward F. Domino, M.D., Assistant Professor of Pharmacology, University of Michigan, Ann Arbor, Michigan. "Effects of Tobacco Smoke and Nicotine on the Central Nervous System."

James G. Miller, M.D., Ph.D., Professor of Psychiatry and Psychology, and Director, Mental Health Research Institute, University of Michigan, Ann Arbor, Michigan. "The Behavorial Effects of Smoking Under Stress."

The Place of Trichlorethylene in Modern Anesthesia

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THE USE OF trichlorethylene as an anesthetic in man, was originally an American discovery,[1] but despite the fact that the drug has gained a measure of popularity in this country as an analgesic in obstetrics and dentistry, it has not achieved as wide a popularity as a general anesthetic as it has in the British Isles.

The opinion of many American authorities is summarized by Goodman & Gilman (1955),[2] who write, "Inasmuch as the few advantages do not outweigh the many disadvantages incident to its use trichlorethylene cannot be recommended as a general anesthetic." We, in the Department of Anesthesiology, disagree with this statement both in the light of the published work and from practical experience with the drug. It is the purpose of this paper to commend the nitrous-oxide-oxygen-trichlorethylene combination as a satisfactory non-explosive anesthetic for certain types of surgery. It is not proposed to deal with the use of tricholrethylene-air analgesia in detail as this technique is sufficiently well recognized.

History

Trichlorethylene was first synthesized by the German chemist, Fischer,[3] in 1864, and first used as an inhalation anesthetic by Lehman,[4] who anesthetized eight cats with the drug in 1911.

Surprisingly trichlorethylene was introduced into human medicine by Oppenheim in 1915[5] as a specific treatment for trigeminal neuralgia. This followed reports that workers in German heavy industry in World War I, who used trichlorethylene as a degreasing agent, were liable to develop anesthesia in the distribution of the trigeminal nerve.[6]

In 1934, Professor Jackson[7] of the University of Cincinnati described the use of the drug as an analgesic in dogs and in 1935 Stricker, Jackson, and others[1] reported 306 cases of the use of trichlorethylene-air as a general anesthetic in man for minor surgical procedures, chiefly dental extractions and cautery of venereal warts.

Despite the cautious enthusiasum of Jackson and Stricker, the Council on Pharmacy and Chemistry of the American Medical Association[8] were discouraging in their preliminary report on the new agent which was published in the following year. This report probably deterred other workers from making further trials with the drug.

In 1940, however, C. Langton Hewer, of London, began a clinical trial which led to the establishment of trichlorethylene as a useful anesthetic agent. His attention had been drawn to the drug by C. F. Hadfield, Secretary of the Joint Anesthetic Committee of the Medical Research Council and the Royal Society of Medicine who, in turn, had received the suggestion from a chemist named Chalmers. The suggestion appealed to Hadfield because his committee was, at that time, seeking a safe non-inflammable agent for use in military medicine as a substitute for chloroform.

From the start, it was clear that the low volatility of Trichlorethylene (B.P. 89° C.) precluded its use on an open mask except for analgesia, and it was natural that the agent should find its way into the chloroform bottle of the British Boyle's machine. Thus the nitrous oxide-oxygen-trichlorethylene combination began.

After anesthetizing the first 127 cases,[9] mostly soldiers from Dunkirk and air-raid casualties from the early raids on London, Hewer concluded that nitrous-oxide, oxygen, trichlorethylene was a safe, smooth anesthetic effective in low concentrations and giving excellent analgesia but poor relaxation.

From this time, despite some reverses, notably at the time of the soda-lime controversy described below, trichlorethylene steadily gained popularity with British anesthetists. Much research has been done on various aspects of the agent and this was admirably summarized in Oslere's Monograph in 1953.[10]

Stability

In the USA, trichlorethylene, U.S.P., is supplied as Trilene® (made by Ayerst Laboratories by arrange-

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ment with Imperial Chemicals Ltd.) and as Trimar® (by Ohio Chemical & Surgical Equipment Co.). Trilene has thymol 1/1000 added as a preservative and Trimar contains small quantities of ammonium carbonate for a similar purpose. Trichlorethylene is a colorless liquid when pure, it is dyed with a small quantity of waxoline blue when used as an anesthetic to distinguish it from chloroform. Both of the above preparations are stable under ordinary operating conditions when stored in amber bottles. Under all normal clinical conditions trichlorethylene is non-inflammable.[10]

Reaction with Soda Lime

In 1943, when trichlorethylene was becoming firmly established as an anesthetic, twenty-five cranial nerve palsies were reported occurring after the use of the drug.

The trichlorethylene used in the first three of these cases was found to have been contaminated with gasoline and this was accepted as the cause of the palsies.[11]

Morton[12] pointed out that the other nineteen[13,14] cases all occurred after trichlorethylene had been used in a closed circuit with soda lime. He stressed that trichlorethylene was decomposed by strong alkalis (a fact discovered by Lehman in 1911),[4] and suggested that these palsies, like those described in industrial poisoning, were due to impurities.

Research revealed that the following reactions occurred:[15]

$$\underset{\text{Trichlorethylene}}{\begin{matrix}CHCl\\ \|\\ CCl_2\end{matrix}} \xrightarrow{NaOH} \underset{\text{Dichloracetylene}}{\begin{matrix}CCl\\ \|\|\\ CCl\end{matrix}} + HCl \text{ (absorbed by NaOH)}$$

$$\begin{matrix}CCl\\ \|\|\\ CCl\end{matrix} + O_2 \longrightarrow \underset{\text{Phosgene}}{COCl_2} + CO$$

Dichloracetylene and phosgene were thus incriminated as the toxic agents. Firth and Stukey[15] have shown that the amount of dichloracetylene produced at room temperature is small but there is a steep rise in the rate of decomposition above 60° C. Wartime sodalime, which was employed at the time of the initial reports of the palsies, frequently heated above 60° C; modern Hyphenate soda-lime rarely heats above 40° C.

The use of trichlorethylene in a closed circuit with soda-lime was abandoned after the dangers were appreciated and no further palsies have been reported.

Metabolism of the Drug

Barrett and Johnston,[16,17] and Powell[18] have studied the metabolism of the drug.

The anesthetic concentration of the drug in blood is 6.5 mgm. to 12.5 mgm. per 100 cc but this falls rapidly to less than 1 mgm. per 100 cc within three hours.

Ninety-two per cent to 95 per cent of the vapour is excreted unchanged by the lungs the remainder is metabolized, presumably in the liver, and excreted as inert trichloracetic acid in the urine during the next ten days.

Trichlorethylene and the Liver

The occurrence of liver damage after poisoning with impure industrial trichlorethylene led to the fear that this might occur after anesthesia. This has not been found to be the case in practice. Five cases of liver damage were reported in the early literature. Two of these occurred after the use of the drug in a closed circuit,[19] one in a pre-eclamptic patient,[20] one in a case of severe burns,[21] and one after only a few breaths of trichlorethylene on an open mask.[22] In none of these cases is it likely that trichlorethylene was the cause of the trouble.[10]

Armstrong[23] using the Cephalin-Cholesterol flocculation test has shown that the alterations in liver-function which occur after trichlorethylene are less than after ether, much less than after chloroform, and that these alterations are transient.

Hepatic damage has been produced in animals after intravenous[24] and subcutaneous[25] injection and after exposure to the vapour for eight hours a day for three weeks.[26] Orth and Gillespie conclude that, under clinical conditions, liver damage is unlikely to occur.[27]

Cardiac Effects

The effects of trichlorethylene on the heart have in the past given rise to much misgiving. There are two groups of arrythmias.[28] Vagal arrythmias occur under all types of light anesthesia but are more frequent with trichlorethylene than with most other agents. These vagal arrythmias include auricular extra systoles, tachycardia, bradycardia and, occasionally, heart block. They usually occur early and disappear as anesthesia progresses. They are not dangerous but must be carefully monitored.

Multifocal ventricular extra systoles occur in deep anesthesia. This is a sign of overdose and the concentration of the trichlorethylene should be reduced. Multifocal ventricular extra systoles occur also under cyclopropane and chloroform. In their classical papers, Levy and Lewis show that in the case of chloroform multifocal ventricular extra systoles are evidence of

impending ventricular fibrillation.[29,30] Experience has shown that their import in trichlorethylene anesthesia is not as grave but they should be taken seriously.

Norris and Stuart[31] recently reviewed the cases of cardiac arrest reported to have occurred under trichlorethylene analgesia and anesthesia. In all, thirty-four cases are mentioned, nine of which are not described in full detail. In three cases, cardiac massage was not required and as no electro cardiogram was being taken at the time, there is doubt as to whether cardiac arrest actually occurred inasmuch as the heart started to beat spontaneously after very short intervals. After careful review of the facts, the present authors are of the opinion that eleven of the remaining cases were probably due to causes other than trichlorethylene.

There are, therefore, eleven fully documented cases in which unexplained primary cardiac failures occurred during trichlorethylene anesthesia. When it is considered that this is a review of the world literature since the re-introduction of the drug sixteen years ago, it would seem obvious that risk of cardiac arrest under trichlorethylene is no greater than the risk under any other agent in use today. It is certainly far less than under chloroform anesthesia[32] with which trichlorethylene anesthesia is often erroneously compared.

One death occurred after the infiltration of 1/250,000 adrenalin. No deaths have been recorded after the use of dilution of adrenalin of 1/500,000.[32]

In a recent letter, Ballantine[33] draws attention to the fact that few of these cases of primary cardiac arrest occurred after induction of anesthesia with a short acting barbiturate and suggests that such an induction may protect against untoward cardiac effects.

Administration

The most satisfactory apparatus for the administration of trichlorethylene is the single limb non-rebreathing attachment known as the Magill attachment or, more recently, as the Mapleston A circuit.[34]

We use the Standard Heidbrink ether vaporizer fixed to the inspiratory limb of the Heidbrink machine. In order to eliminate CO_2 from the system, the flow of gases must at least equal the patient's minute volume.[34] We usually employ a flow of 2 to 4 liters of oxygen and six to eight liters of nitrous oxide.

Using the Heidbrink ether bottle and wick, the maximum concentration of trichlorethylene vapour permissable for use during induction is obtained with the lever at graduation 5. This corresponds to about 2.5 per cent. The maintenance concentration required varies from the 0 to 2 graduation.

Signs

In his original paper, Jackson[7] states, "a small amount goes a long way" and this is the basic consideration in the administration of the drug.

There is no advantage in pressing trichlorethylene anesthesia beyond plane one to two of the third stage of surgical anesthesia, as, however much it is pressed, relaxation is minimal. If trichlorethylene is given skillfully in minimal quantities, recovery is rapid; if an overdose is given, the tissues of the patient become saturated, and he may sleep for many hours.

Respiration provides a most useful guide when maintaining the patient in light anesthesia. Once anesthesia is well established the concentration of vapour is reduced step by step. Depth of respiration increases as anesthesia lightens and, ultimately, the patient may hold his breath. When these signs indicate that the patient is getting light, the concentration is again increased, and this may be done rapidly as the drug is not highly irritating, and the process of "titration" repeated. It will be found that, as anesthesia progresses, it will often be possible to shut the trichlorethylene off altogether for quite long periods.

Tachypnoea occurs under trichlorethylene anesthesia. It is not necessarily a sign of depth. Certain sensitive individuals, particularly the young and the aged, may show tachypnoea after a few breaths of trichlorethylene. The most satisfactory explanation is that of Whitteridge and Bulbring.[35,36] In their opinion, trichlorethylene sensitizes the inflation and deflation receptors in the lungs thus causing the impulses from them to fire off expiration and inspiration earlier and more rapidly than normally. A small dose of demerol (10 to 20 mg) inhibits the respiratory center sufficiently to restore the status quo.

Safety

Published series[9,32,37,38,39,40] collected in Table I bear impressive testimony to the safety of trichlorethylene. No further comment is required.

Use in the University of Michigan Hospital

The use of trichlorethylene-nitrous oxide at this hospital was revived in July, 1956. In the twenty-four months following, 1,574 patients have been anesthetized with the drug. There have been no deaths in

the operating room, no postoperative deaths attributable to the drug, and no known cases of liver damage.

TABLE I. SAFETY OF NITROUS OXIDE, TRICHLORETHYLENE

Published Series	Number of Cases	Deaths Attributable To Drug	Liver Damage
Hewer and Hadfield (1941)	127	Nil	Nil
Elam 1942	1,000	Nil	Nil
Enderby 1944	2,000	Nil	Nil
St. Bartholomews (Hewer)			
a. (St. Albans) 1940-48	40,000	Nil	Nil
b. (London) 1946-55	29,000	2	Nil

Table II is a summary of the cases. The general surgery cases include breasts, thyroids, plastic procedures, hernias, et cetera, but few abdominal cases. In the lower abdomen, satisfactory anesthesia can be given with the addition of minimal quantities of relaxant drugs and, when necessary, assisted respiration, but despite a recent article,[41] the authors believe that abdominal work is better and more easily facilitated either by other inhalation agents (ether), or by other relaxant techniques (nitrous-oxide, oxygen, carare) which enable controlled respiration to be performed in the presence of soda lime. For similar reasons, the drug is not satisfactory for thoracotomies. Like

TABLE II. UNIVERSITY OF MICHIGAN HOSPITAL N_2O-O_2—TRICHLORETHYLENE JULY, 1956 TO JULY, 1958

General surgery and urology	548
Craniotomies et cetera	336
Other neurosurgery	239
Orthopedic	307
Otology	98
Others	46
Total	1574
Deaths due to anesthesia	Nil

others[42] we have found that trichlorethylene offers tremendous advantages in neurosurgical procedures. The patient is always breathing spontaneously and, therefore, any respiratory abnormality due to surgical manipulation can be immediately detected and reported to the surgeon. The agent is non-explosive and the cautery may be used. Lastly recovery is rapid and this factor is much appreciated by the neurosurgeons especially after operations for tic dolerecux and after cordotomies.

Conclusion

There can be no better ending to this paper than to quote the words of Hewer spoken at the conclusion of his 1943 lecture to the Anesthetic Section of the Royal Society of Medicine:[11]

"From the large number of administrations made I think we are justified in saying that, within its known limitations, trichlorethylene is a useful agent in the production of anesthesia and analgesia."

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Surgical Management of Defects of the Scalp

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THE SCALP, like the palms of the hands and soles of the feet, is a highly specialized anatomical structure. It is in an exposed and vulnerable position which predisposes it to many types of trauma. The scalp is also subject to infection, to neoplasia and congenital defects. The principles and techniques of obtaining a closed scalp wound were unknown as recently as the first World War and many patients with scalp lesions suffered from prolonged morbidity or did not survive. During World War I, Harvey Cushing[1] pointed out the necessity for adequate closure of scalp defects to avoid infection and other complications. Since that time certain principles governing the treatment of surgical lesions of the scalp have become well established.

Etiologic Factors

During the early part of the present century, traumatic scalp lesions increased in direct proportion to advances in mechanical and technological knowledge. During the past two decades, the use of protective devices on machines and a program of accident prevention has decreased the incidence considerably. Total avulsion of the scalp by entanglement of a woman's hair in rotary machinery still accounts for many scalp injuries.[2,3,8,9,10] Increasing numbers of scalp defects are seen as a result of automobile accidents.[2,4] During periods of active warfare, many occur as a result of missiles of various types. Many of these injuries are associated with intracranial damage which is of concern to the neurosurgeon. Burns of the scalp account for many defects. Burns may be electrical,[2,13] thermol,[2,8] chemical,[2] or the result of irradiation.[2] Bites by dogs and horses and clawing by bears, wildcats and other nondomesticated animals has resulted in severe scalp avulsions and injuries.[6,8]

Uncontrolled sepsis such as hidradenitis suppurativa, or extension of infection from osteomyelitis of the skull[12] may also cause destructive lesions requiring surgical repair. Neoplasms, both benign and malignant, of the scalp account for a large number of surgical cases. The pigmented nevus which is poorly covered by hair or extends into non-hair-bearing scalp areas may require surgical treatment for prophylactic or cosmetic reasons.[20] Other lesions frequently requiring surgical management include dermoid and sebaceous cysts, osteomas, circoid aneurysms, eosinophilic granulomas, hemangiomas, lymphangiomas, and verrucous and junctional nevi. The common malignant lesions of the scalp consist principally of basal cell carcinoma, squamous cell carcinoma, melanoma, sweat gland adenocarcinoma, and fibrosarcoma.[17-19] Metastatic carcinoma from the breast to the scalp has been reported but metastases to this area are rare.

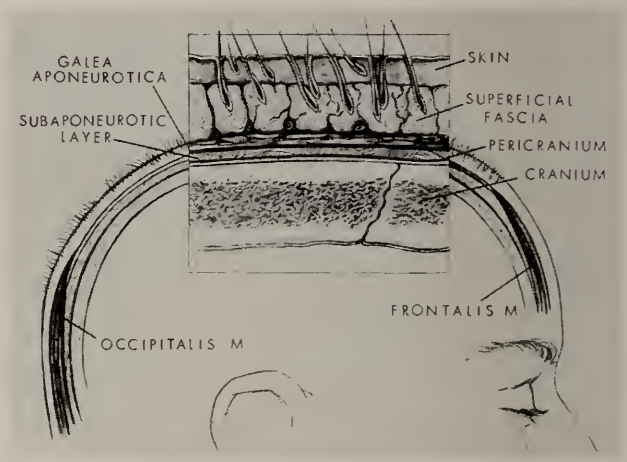

Fig. 1. The five layers of the scalp. Note that the galea aponeurotica has muscular attachments anteriorly and posteriorly, thus accounting for the wide gaping of transverse wounds through this layer.

Congenital defects of the scalp are rare occurrences. Kahn[16] has reported congenital absence of a portion of the scalp and advises that if these defects lie over large visible blood vessels or suture lines, the membranous portion of the defect should be excised and primary closure of the scalp effected if possible by rotation flaps of adjacent scalp tissue. If this is not possible, split thickness skin grafts should be used as a temporary expedient as soon after birth as possible in order to avoid the sequelae of necrosis fol-

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lowed by erosion of vessels and death. Grossman, et al[5] reported a case involving twins, joined together in the cranial area (craniopagus) in which surgical separation was followed by correction of the scalp defects with local flaps and skin grafts. One of the twins did not survive.

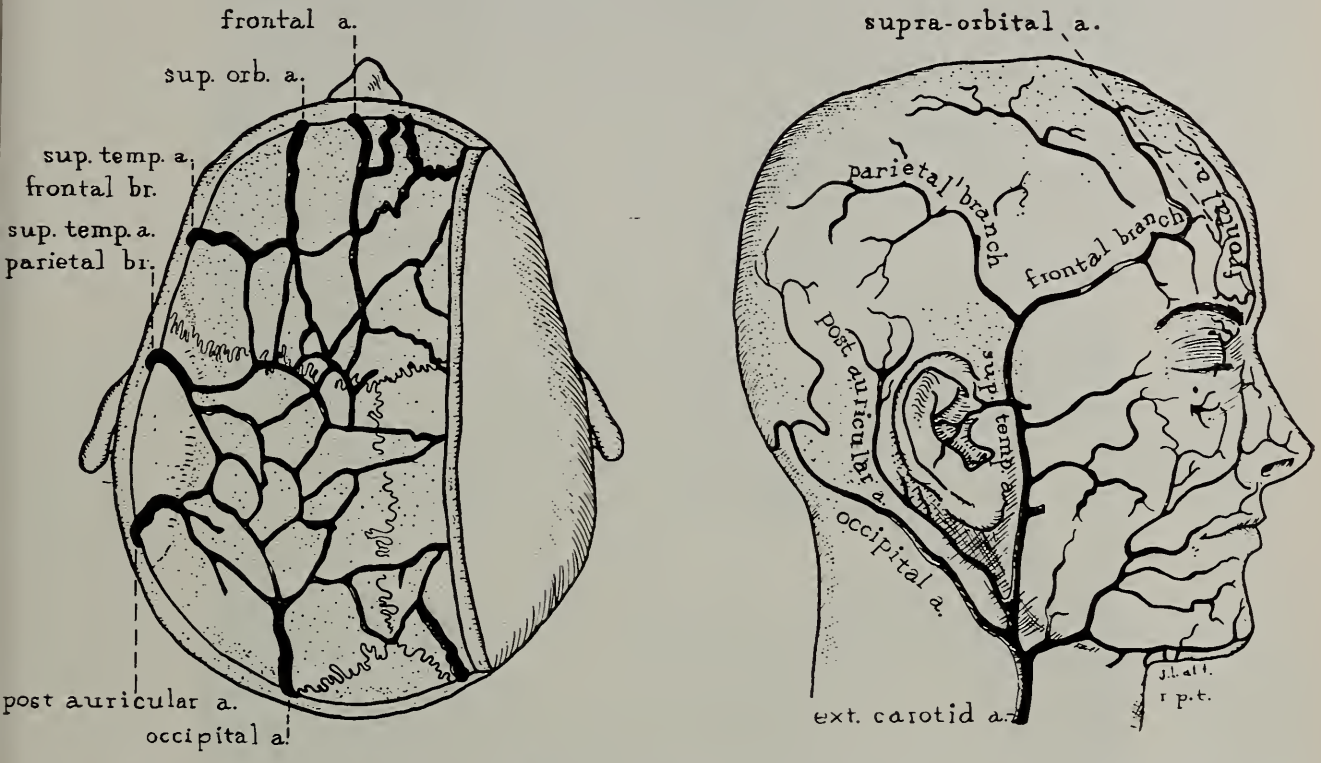

Fig. 2. The blood supply to the scalp. Consideration of these arteries is important when planning scalp flaps. There is an anastamosis of smaller vessels across the midline.

Anatomy

The scalp is composed of five distinct layers (Fig. 1). The scalp forms a protective layer for the cranium and is thicker than skin found elsewhere. It is especially thick in the occipital region, less thick in the frontal and temporal and mastoid areas. The skin forms the outer layer. Immediately below the skin is a layer of subcutaneous tissue and superficial fascia which contains the major blood vessels of the scalp and binds the skin to the third layer of the scalp. The third layer is the galea aponeurotica which is a dense tendinous structure connected with the frontalis muscle anteriorly and the occipitalis posteriorly. These muscles are antagonistic in their action and pull the galea tightly over the cranium and account for the gaping of wounds in the scalp when the galea is cut transversely. Due to the pull of the occipito-frontalis muscle on the galea, wounds resulting from the excision of scalp lesions may appear much larger than the area actually excised. An appreciation of this is important in outlining and planning a pedicle flap from an adjacent area. Immediately below the galea is a subaponeurotic layer of loose areolar tissue overlying the pericranium. The pericranium or periostium of the skull lies immediately below the subaponeurotic layer in contact with the cranium. It is a fibrous membrane containing blood vessels and intimately attached to the outer table of the skull.

The blood supply to the scalp is generous and no doubt in a large measure contributes to the early uncomplicated healing of scalp injuries. The scalp is supplied by five major paired arteries and veins: anteriorly are the frontal and supraorbital branches of the ophthalmic; laterally, the temporal and posterior auricular branches of the external carotid artery; posteriorly, the occipital branch of the carotid artery (Fig. 2). There is an anastamosis of vessels across the midline but, in most instances, it is not generous, and for this reason, flaps generally should not be designed to extend across the midline unless they are delayed or bipedicle type flaps. All scalp vessels are peripheral and are not branches of perforating vessels as in other areas of the body. Whenever possible, it is desirable to base all flaps on the scalp toward the periphery and design them so they are in

the pathway of the major vessels. Inasmuch as there are no important perforating vessels in the scalp, it is unnecessary to undercut the flaps in the delaying procedure. Simple outlining incisions are adequate for scars represent interruption of the blood supply which generally will be insufficient to support tissues distal to the scar and necrosis frequently may result.

Scalp flaps should consist of the skin, superficial

Fig. 3. These extensive scalp lacerations were caused by an automobile accident. All foreign materials were removed, minimal debridement done, and the flaps of scalp sutured carefully in place.

interruption of the blood supply[7] and it is unnecessary to elevate the flap to develop a collateral circulation. It is inadvisable to outline flaps which are traversed by existing scars extending through the galea. These fascia and the galea or laterally and anteriorly the superficial layer of the fascia covering the underlying musculature. These flaps should be elevated in a manner that precludes injury to the subaponeurotic

layer and pericranium. The pericranium contains an excellent blood supply and will adequately support split thickness skin grafts used to cover defects produced by mobilization of flaps. Free skin grafts will not take if the periosteum or pericranium is entirely stripped away from the bone. For this reason, it is imperative that the pericranium remain undisturbed in raising the scalp flap unless it is planned to replace the full thickness scalp in such a way that the bone will be completely covered.

The lymphatic drainage of the scalp parallels the route of the main blood vessels. Anteriorly the drainage is through the nodes of the face, laterally through the carotid and mastoid nodes and the occipital area drains through the occipital nodes posteriorly.

The Acute Traumatic Injury

A careful neurological examination must be made of all patients with head injuries. After ruling out intracranial injuries and skull fractures, attention may be turned to the management of the scalp defect. Conservative management generally gives the best results. Radical debridement has no place in the management of lacerations of the scalp. All tissues that have any possibility of survival should be saved. The blood supply of the scalp as previously pointed out is generous and segments of partially avulsed scalp attached by a small pedicle have a good chance of survival. Any portions of scalp that are obviously devitalized should be discarded. Many times the rich vascular supply of the scalp will support large flaps with narrow pedicles even when these pedicles are based in a retrograde fashion. Dirt, grease and foreign materials should be carefully and thoroughly removed from the scalp before suturing. These substances may leave pigmented areas which are cosmetically undesirable in the forehead or temporal area or may result in secondary infection and delayed healing.

Small scalp defects usually can be closed by wide undermining of the loose subaponeurotic layer. If necessary, this may be combined with relaxing incisions made from below through the galea but not through the subcutaneous fascia as this may interrupt the vascular supply of the area. Larger defects with superficial loss may require closure with free grafts or pedicle flaps from the adjacent area.

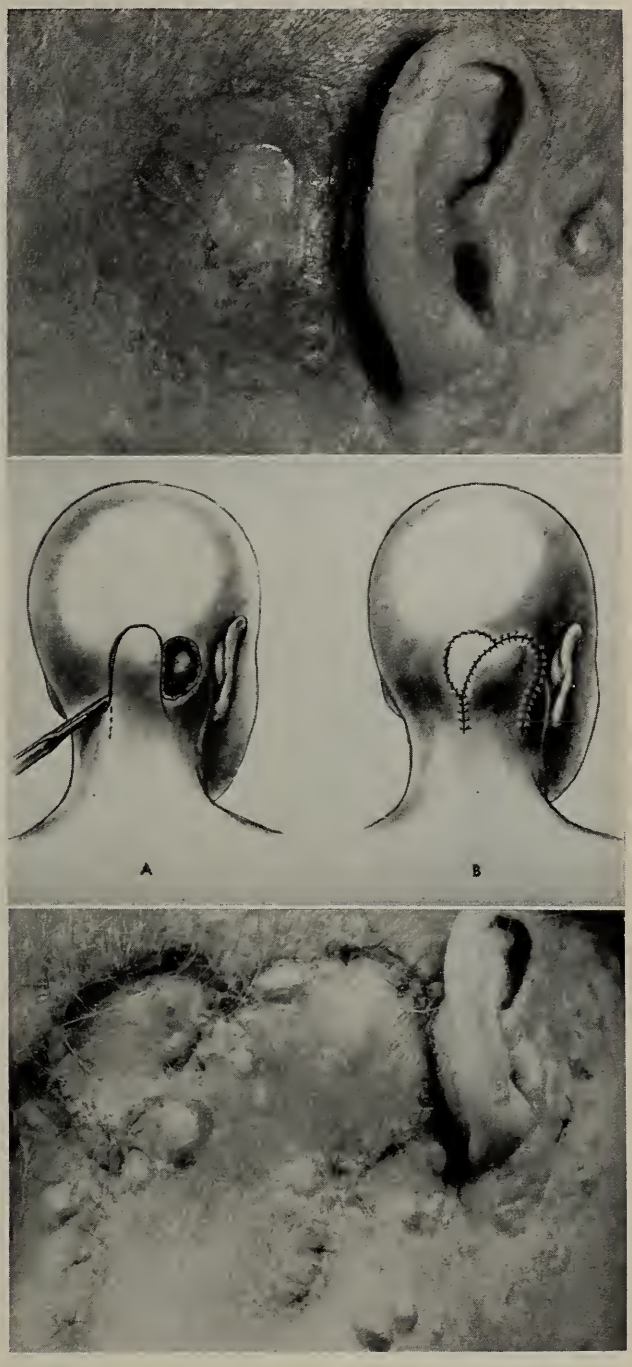

Fig. 4. This fifty-three year old woman had multiple cylindromata over her body since the age of eighteen. Basal cell carcinoma developed in the posterior auricular region and was treated elsewhere by excision and cautery—note scar and exposed mastoid bone. Area treated by excision of scar and rotated pedicle flap to cover the defect. A split-thickness skin graft was employed to cover the donor site of the flap.

Correction of Defects with Split-Thickness Skin Grafts

In every scalp wound, the principle of immediate primary closure should be observed. If it is not possible to close the defect with the immediately adjacent tissue, free skin grafts may be necessary. If the scalp loss is extensive, split-thickness skin grafts can be successfully applied to the defect to obtain a closed wound. Sheets of split-thickness skin, cut with a dermatone from the thighs or abdomen and

placed on the intact pericranial layer, have given excellent results. The excellent take is due to the adequate blood supply of the pericranial layer. In avulsion of the scalp, the separation usually occurs in the sub-aponeurotic layer so that the pericranium is intact, and capable of receiving a split-thickness skin graft. It is useless to replace or retain a full thickness section of avulsed scalp completely separated from its blood supply as the thickness of the tissue will not permit adequate nourishment of the flap as a free graft.[2,9,15] Delak[21] in April, 1955, reported the first case in a human in which there was partial success in replacement of an avulsed scalp after thinning it out from its under surface with a Thiersch Knife. Three months after the "take" of the graft, very fine hairs appeared on its surface. The possibility of using split-thickness or split-split-thickness skin grafts from the avulsed scalp and reapplying them to the defect in the hope of obtaining an actual hair-bearing skin graft has been the subject of experimental work in both animals and humans.[2,10,14,22] Osbourne[22] has shown in young pigs that split-split-thickness grafts employing the thickness of skin between .025 and .050 of an inch gives viable skin and the growth of good quality hair.

If the cranium is exposed by avulsion of the pericranium, it is imperative to provide an adequate immediate covering for the bone. If denuded bone, deprived of its blood supply, is not immediately covered, bone necrosis and sequestration are highly probable. Free skin grafts have no chance of taking on the outer table of bone. To cover the denuded cranium, a flap should be outlined and rotated over the exposed bone area for coverage. If flaps are not feasible because of too extensive loss of tissue, the outer table of bone should be removed by means of osteotomes. After adequate control of bleeding, split-thickness skin grafts take well on a bed of this type when applied as a dressing graft immediately after removing the outer table. In the event that the graft does not survive, a velvety bed of granulation tissue will develop within a week or ten days which will offer a good bed for another split-skin graft.

Fig. 5. Localized osteomyelitis had been treated by removal of skin and a portion of the frontal bone one year previously and the defect covered by a split-thickness skin graft. This pulsating skin graft was excised and a bipedicle flap advanced to cover the defect. A bone graft will be inserted.

Correction of Defects with Local Scalp Flaps

Hair-bearing scalp flaps can often be rotated or transposed when it is desirable to place hair-bearing tissue in strategic positions. In the preparation of scalp flaps, the skin, subcutaneous tissue and galea aponeurotica or the superficial layer of muscular fascia are raised as one layer. In order to provide adequate vessels for arterial flow and venous return, it is imperative to base the flaps at the periphery of the scalp. Exceptions to this may be necessary, in

which event, the delayed pedicle flap should be utilized. In general, the two-to-one ratio of length to width provides a safe transposition type of pedicle flap in the scalp; however, in areas where larger arteries and veins are included in the flap, greater liberties may be taken (Fig. 4) as far as the width-length ratio is concerned. It is generally inadvisable to plan a retrograde flap in the scalp; that is, a flap based against its blood supply. If this becomes a necessity, the flap should be carefully outlined with a wide base and constructed by the "delay" technique. Inasmuch as there are no perforating vessels between the superficial and deep layers of the scalp, it is unnecessary to undermine during the delay procedure. Completely cutting through the galea and superficial muscular fascia will interrupt the blood supply so that the flap can develop a collateral supply adequate to maintain its vitality when advanced. Retrograde flaps are occasionally necessary as emergency procedures and should be made by a long incision outlining a wider flap in order to assure its viability.

Inasmuch as hair-bearing tissue gives a better cosmetic result, it is desirable to use local tissue flaps in repairing scalp defects. The scalp is dense and inelastic and does not rotate easily without buckling; therefore, flaps must be carefully designed so that they can be transposed or rotated without tension. In some cases, this leaves a small dog-ear type defect immediately after the surgery. If this does not flatten out adequately postoperatively, secondary procedures may be necessary.

Flaps may have a single or double pedicle; that is, they may be attached to one or both ends. If the donor site cannot be immediately closed by direct approximation, it should be covered with a split graft or a secondary local flap (Fig. 5). In wounds involving the forehead and frontal area in which bone is exposed or lost, Converse[7] advises a bipedicle visor flap which may be used as a temporary measure to

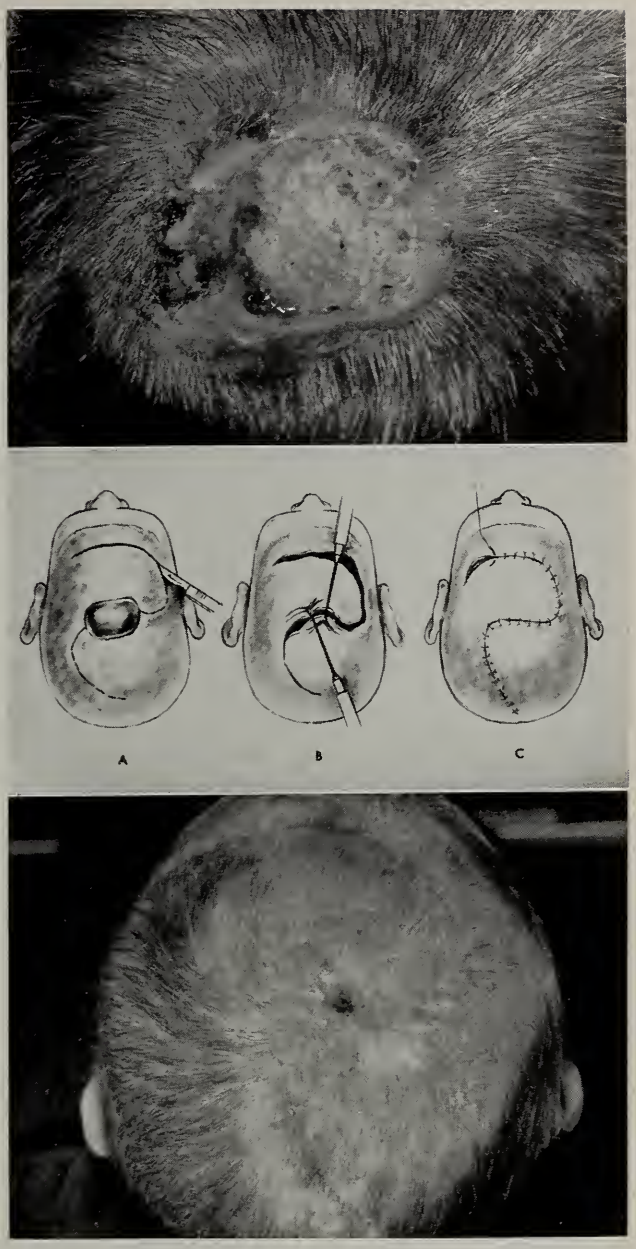

Fig. 6. Following the wide excision of a trichomatrioma of the scalp, double transposition flaps were rotated to allow the primary closure of the scalp defect.

Fig. 7. Following an automobile accident partially avulsed scalp was immediately sutured in place. Admitted with slough of the flap. Repair by a sliding rotation flap to cover the defect, and a split-thickness skin graft to the donor site.

cover the frontal defect. The donor site is immediately repaired with a thick split-graft and at a later date, full-thickness tissue may be transferred from another part of the body and the visor flap returned to its normal position in the hair-bearing portion of the scalp. The distant flap is then used for reconstruction of the frontal defect.

Double transposition or Z-flaps are useful in many cases and are developed as two contiguous flaps with their pedicles in opposite directions, making the incision in the shape of a Z or S. This procedure is useful in providing a flap of hair-bearing tissue in areas where the hair-bearing scalp has been destroyed (Fig. 6).

Fig. 8. Pre-operative deformity due to skin graft placed to cover defect incident to excision of nevus.

Rotation flaps as described by Sir Harold Gillies[11] may be useful in closing triangular defects. In outlining the so-called sliding rotation flap, one should plan this flap on the side bordered by the greatest amount of scalp tissue also taking into consideration the blood supply in the development of this flap. It

is outlined roughly in a semi-circular line with the diameter of the flap at least twice the width of the defect to be closed (Fig. 7). The flap should be large enough so that there is no tension at its tip.

The "tripod" type of scalp closure[11] is done with three short sliding rotation flaps. Each sliding only to the center of the defect. Each leg of the tripod must be curved and all of them in the same direction.

If local flaps cannot be obtained for the repair of large cranial defects, it is necessary to have a flap transferred from a distant area. A tube pedicle flap, raised from the abdominal area and placed upon the wrist as the carrier by which the flap is transferred to the cranial area, is excellent for correction of these cranial defects.[7] This is a useful technique, as flaps of almost any size can be elevated from the abdomen and transferred upon the arm as a carrier.

Late Reconstructive Procedures

If the principle of early scalp closure has been observed, definitive procedures can be carried out at the convenience of the surgeon and the patient. In some instances, months or years later. These procedures may be necessary for improvement of appearance or for reconstruction of soft tissues or bone defects to restore function. Split grafts placed on the dura do not provide adequate covering for skull reconstruction. Wherever bone grafts are to be placed, full-thickness skin is necessary to provide adequate blood supply. This may be accomplished by the use of local scalp flaps placed over the brain immediately following excision of the split-skin graft. The donor defect can be covered with a split-graft placed on the pericranium. Bone grafts can be placed under these scalp flaps after they have been adequately established and have a good blood supply.[23] This is generally done about six months after the establishment of the scalp flap.

If local scalp tissue is not available for covering exposed brain areas, pedicle flaps from a distance, carried on the arm, can be brought up and placed over the defect immediately following excision of the split-thickness graft. This type of flap provides an adequate blood supply to support a bone graft. Primary bone grafts should not be used at the time the flap is transferred from a distant area. The tissues should be permitted to develop an adequate blood supply before any attempt is made to reconstruct the cranial vault. The use of split rib bone grafts has been advocated by Longacre,[24] who has successfully used these in extensive reconstruction in children. The author has found that the ilium provides adequate bone for reconstruction of large defects.[23]

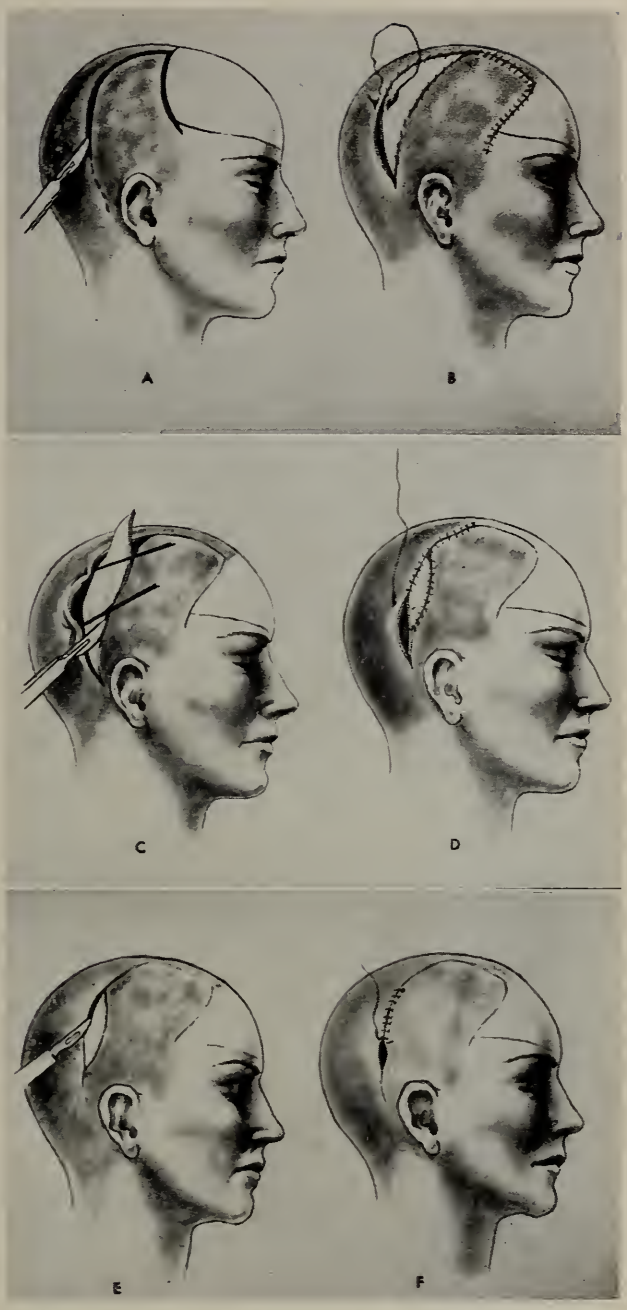

Fig. 9. Successive steps in operation performed on patient shown in Figure 8. A sliding rotation scalp flap was advanced to the frontal area to re-establish the hair line. The split-thickness skin graft in the donor site was later removed by multiple excision procedures.

Transposition of hair-bearing flaps for establishment of the hairline,[25] and multiple excision procedures for removal of skin grafts or scars, make up the majority of definitive procedures used for cosmetic purposes. (Fig. 8).

Conclusions

Scalp lesions requiring surgical treatment are becoming more numerous as the result of an increase in traumatic injuries, neoplasms and congenital deformities. Conservative management of injured scalp tissue with minimal debridement generally gives the best end result. Whenever possible, the principle of early wound closure should be observed. This can be accomplished by the use of local pedicle or sliding rotation flaps or use of split-thickness skin grafts. Totally avulsed sections of scalp will not survive as free grafts and in these cases it is best to use free thick-split-skin grafts for repair. Local pedicle or rotation flaps or flaps transferred from a distance must be used in preparation for a bone graft.

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Nocturnal Enuresis

James C. Breneman, M.D., Galesburg, Michigan, says that gold stars, flashing lights or ringing bells won't help the child who has an enuresis problem caused by an allergy to milk, wheat, eggs or any one of a dozen other foods. Probably five million children between the ages of three and twelve, are enuretic.

He also points to a direct correlation between prolonged enuresis and delinquent, criminal or psychopathic behavior, adding that "the wet bed may be the seed bed of juvenile delinquents and mature criminals."

Dr. Breneman noticed that enuresis was associated with allergic conditions. Using an anticholinergic drug combined with antihistamines, he was able to control enuresis in ten of twenty-six patients.

Using elimination diets to spot allergic conditions, the Michigan physician has solved the enuresis problem in 60 consecutive cases. He reports that removing offending foods from the diet was the only therapy required.

Dr. Breneman points out that personality changes often appeared several days before the enuresis was controlled. This, he adds, suggests a direct relationship between food allergies and personality traits. When the offending food is again included in the diet, it is repeatedly accompanied by "the irritable, yet apathetic, pretreatment personality."

In order of frequency, Dr. Breneman traced enuresis to the following food allergies: Milk, wheat, eggs, corn, chicken, oranges, pork, tomatoes, peanuts, beef, apples, fish, berries, peas, chocolate, rye and cauliflower. Allergies to milk, wheat or eggs accounted for about 60 per cent of the incidence.

In most cases, a strict elimination diet is necessary. The basic diet is confined to lamb, rice, rye, apricots, peaches, beets, spinach, cherries, soybeans, olives and tea. At bedtime, the patient receives an anticholinergic plus a long-acting antihistamine. In many instances, proper diet controls enuresis in three to seven days. The medication may often be discontinued in three or four days.—*GP*, December, 1959.

The Stockholm Sectional Meeting of the American College of Surgeons

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THE SECOND European sectional meeting of the American College of Surgeons was held at the invitation of The Swedish Surgical Society in Stockholm, July 2 to 7, 1958. The first such meeting was held in England some years ago at the invitation of The Royal College of Surgeons. The majority of the attending members of the College and their wives came by the motor ship *Statendam* of the Holland-American Line. This is a luxury ship and it was anchored in midstream of the Stockholm harbor where passengers lived aboard and were scuttled back and forth from ship to shore by motor dinghy. Since Mrs. Larsson and I had planned a prolonged visit to Sweden, we travelled by Scandinavian Air Lines and reached our destination in twenty-one hours.

A very elaborate and interesting program had been prepared by members of the college in close collaboration with the Swedish surgeons. A glance at the program showed that every field of surgery and the specialties were to be presented. Dr. Philip Sandblom, president of the Swedish Surgical Society, opened the meetings by pointing out that, in recent years, the trend for postgraduate studies in surgery has been to the United States, not to the European continent as formerly. In talking to many of the young surgeons, I was impressed by their great desire to go to America for further studies in our great teaching centers. Dr. Sandblom expressed his deep gratitude to the American College of Surgeons for accepting the invitation of the Swedish Surgical Society to come to Sweden to learn what it has to offer, and for an opportunity to return the many courtesies shown to Swedish surgeons while visiting in the United States.

The main parts of the program was presented by leading men of our country with a well-balanced counterpart of Swedish surgeons. Nearly all the meetings were held in the auditorium of the Stockholm Concert House which has a seating capacity of about two thousand people. It is located in the central part of the city and has ample room for scientific and commercial exhibits. The meetings began and ended on time with almost military precision, to the delight of all attendants.

Upon registering for the sectional meetings, everyone was presented with a neat, plastic portfolio which contained information concerning all meetings, entertainment, and matters of general interest to the visitors. Tours to the leading hospitals were arranged, as well as sight-seeing trips for the ladies and members. There are two new hospitals which are fine examples of modern hospital architecture—the Karoline Hospital and the Southern Hospital, 1800 and 1500 beds respectively.

These hospitals were built and are supported partly by the city but also by the state since many patients come from distant parts of the country for special treatment. One hospital is located on the north mainland, the other on the south mainland. The central part of Stockholm is built on numerous small islands. I will not go into the economic picture of the management of these hospitals since that is a very special subject. Suffice it to say, and I am quoting a Swedish authority, "It has been possible throughout Sweden to make hospital service available to all without a heavy outlay for the individual. The services have been maintained at a high standard owing to the resources at the disposal of the doctors. Since doctors have had charge, not only of the medical, but also of the administrative side of the hospitals, public expenditures have been kept relatively low and funds allocated have been used effectively."

I would like to review only a few of the papers presented at the meetings.

THE AUTHOR
B. Hjalmar Larsson, M.D.

A symposium on "Late Results in Surgical Treatment of Duodenal Ulcers" was introduced by Dr. Lester R. Dragstedt of Chicago. He pointed out that there is now adequate evidence that peptic ulcers are usually due to hypersecretion of gastric juice and not to a local decrease in the resistance of mucosa and further—*that the hypersecretion of gastric juice in duodenal ulcer patients is usually of nervous origin whereas the hypersecretion of gastric juice in gastric ulcer patients is usually of humoral or hormonal origin.* For this reason vagotomy combined with an operation such as pyloroplasty or distal gastro-enterostomy to prevent stasis of food in the antrum is his choice of operation for the treatment of duodenal ulcer. Thirteen hundred operations of this type have been performed in his clinic since 1943. Ninety-one per cent of the patients have had good to excellent results. Failures have usually been due to incomplete vagotomy, or an inadequate drainage procedure which fails to prevent stasis of food in the antrum or to hypersecretion of gastric juice due to the presence of a non-insulin producing islet cell tumor of the pancreas. He has up to now done 1500 cases with 5 per cent recurrence. He does a vagotomy, then drainage for five days followed by a low posterior gastro-enterostomy. He added that internists often refuse to send their patients to surgeons who do gastric resections. The speakers who followed, both American and Swedish, nearly all advocated some type of gastric resection. It appeared to me that very few had the material or the years of observation comparable to that of Dr. Dragstedt.

Of the Swedish participants, I would like to review two papers. In a symposium on Low Back Pain and Sciatica, Dr. Carl Hirsh of Uppsala presented a paper on "The Pathology of Low Back Pain and Sciatica." Dr. Hirsh presented data on clinical studies and statistical evaluation of 18,000 patients, 10 per cent of whom were operated upon. Five hundred backs were studied with regards to structural changes in the lumbar inter-vertebral discs by gross, microscopic, and ultra-microscopic examination at routine autopsies in Stockholm and Uppsala. Histochemical analysis was made on sample discs from different age groups and different types of disc structure. Biomechanical measurements were made on vertebrae and discs to evaluate the significance of structural changes. Comparative studies were carried out on various animals with regard to the frequency of degenerative changes.

The incidence of low back pain and sciatica is 65 per cent of the Swedish population. The frequency is the same in the two sexes, and the highest figures are recorded between the ages of thirty and forty years. No occupational variation was found, but workers doing heavy work are more incapacitated than others.

Reduced disc height in the lumbar spine is demonstrable roentgenographically in 50 per cent of clinical cases. Rupture and necrosis of the nucleus as well as of the annulus are common in young people between twenty and twenty-five years of age, rupture is common in those intervertebral spaces where the mechanical stresses are great.

A rise in intradisc pressure in ruptured discs causes low pain, not because the disc bulges and presses on the nerve roots, but probably because the stresses in the outer border of the annulus and the long ligaments with their sensitive nerve elements are too high. Later the discs dry up, the nucleus and parts of the annulus are replaced by dense connective tissue and become less elastic. Acute attacks of pain then occur less frequently.

"The Importance of Early Diagnosis and Adequate Treatment of Hyperparathyroidism" was a paper presented by Professor John Hellstrom. It was discussed by Dr. Brook E. Brush of the Ford Hospital, by invitation. Professor Hellstrom is Chief of Surgery at the Karoline Hospital, and Professor of Surgery at the University of Stockholm Medical School. He is a personal friend of mine and I should like to review his paper. He was one of the pioneers in the understanding of the functions and mal-functions of the parathyroid gland. Professor Hellstrom was originally trained in urology but gained the chair in General Surgery because of his brilliant contributions to general surgery, and especially because of his knowledge of the parathyroid gland. He is well known in the United States and Canada where he has visited on frequent occasions.

Professor Hellstrom reported on a series of 115 personal cases observed from 1930 to 1958. He stated that skeletal lesions of parathyroid osteitis type are less common today than before. In nine of the present cases, the initial symptoms consisted of giant cell tumors of the upper and lower jaws. Following successful parathyroidectomy, the skeletal lesions invariably healed, functionally if not anatomically. The greatest prognostic importance is attached to the renal changes. Urinary calculi with or without coexistent skeletal lesions were found in 85 per cent. Fifty-three patients underwent a total of 104 operations for

removal of calculi, one patient no fewer than six times.

All cases of hyperparathyroidism are associated with renal damage even if there is no roentgenographically demonstrable nephrolithiasis or nephrocalcinosis. The renal damage is, in early cases, functional and reversible after successful parathyroidectomy, in later stages, structural and persistent or progressive even after the hyperparathyroidism has been abolished by parathyroidectomy.

Hypertension was present in 70 per cent of these patients, and in many of them it led to disability or fatal complications. Probably it is secondary to the renal injury.

The prognosis following parathyroidectomy depends on the degree of renal damage at the time of operation. In 18 per cent of the present series, the first operation was unsuccessful or inadequate due to the presence of multiple adenomas, primary hyperplasia of all parathyroid glands, very small adenomas, abnormal positions or confusion with other structures. The treatment of hyperparathyroidism should be centralized to clinics with the best facilities for scientific analysis and rational therapy. In concluding, he said that out of 101 cases of parathyroid diseases, all except one had either renal calculi or skeletal changes or both. X-ray diagnosis is of importance, and early diagnosis is most important to prevent destructive changes.

Incidentally, Dr. Hellstrom told me that gallbladder disease is on the increase in Sweden and is now more common than appendicitis. Last year over four hundred patients were operated on at the Karoline Hospital. The same observation has been reported from Germany and Switzerland.

I would like to mention two more Swedish contributors to the programs. Professor Clarence Crafford's presentation, a pioneer in thoracic surgery and particularly in coarctation of the Aorta, was based on a personal series of 216 cases. With few exceptions, operation consisted of resection and end to end suture. The mortality rate was 5.5 per cent. The deaths took place either in connection with operation or during the immediate postoperative course. In at least 75 per cent of the cases, the end to end anastomosis restores completely normal functional conditions. The follow-up studies, made up to twelve years after operation, have shown that great improvement is produced. The patients become asymptomatic and can resume work except in a few cases in which some additional heart disease is present. It has also been demonstrated that the end to end anastomosis grows with the remaining aortic segment.

The work of Professor Herbert Olivecrona, a famous neural surgeon, was reviewed by one of his associates, Dr. Rolf Luft. It concerned hypophysectomy in the treatment of malignancies. It was in the cases of carcinoma of the breast that the widest experience of the measure has been gained. A remission of 57 per cent was demonstrated on patients operated on in Stockholm, compared to 55 per cent of patients undergoing hypophysectomy in New York. The period of survival was almost two years in patients responding to the operation, and between five and eight months in the others. Two men with metastasizing mammary carcinoma enjoyed a remission lasting about three years. Hypophysectomy may secure remission even in cases treated previously with bilateral oophorectomy and adrenalectomy. Hypophysectomy has also been given a trial in a limited number of prostatic carcinoma with metastases.

I think that the members of the college who attended this sectional meeting in Stockholm were well pleased both with the scientific meetings and the arrangements and hospitality extended. The grand finale was a banquet in the Stockholm Townhall in its magnificent golden hall, where music and a few speeches closed the session. In his scheduled farewell and thank-you speech, the chairman of the Regents of the College, Dr. I. S. Ravdin of Philadelphia, made it very short when he said, "I am speechless."

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Another Possible Role for Aspirin in Therapeutics

In studies comparing the effects of cortisone and aspirin in rheumatic disease, it was observed that the glycosuria elicited by cortisone in rats on a high carbohydrate diet was diminished by salicylates. Further confirmation of these interesting results will be awaited to determine whether these observations may place aspirin in the class with the sulfonurea derivatives which are now employed in the treatment of diabetes.—(JOHN C. KRANTZ, JR., Ph.D., Comments on Drugs, *Current Medical Digest.*)

Hemoglobin Levels and Blood Transfusions

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SINCE World War II, the blood bank has become an integral and extremely important part of the clinical laboratory. During this period, the marked expansion in the number of blood banks and improvement in techniques has resulted in an increased utilization of blood and its products. Much of this increased utilization is due to blood being readily available, and a great part of it is also due to the increasing aggressiveness of surgeons in attacking problems which require large amounts of blood. Before this expansion, the decision to transfuse a patient was considered carefully because of the many recognized dangers and the scarcity of blood. At the present time it seems that the decision is made only too frequently without considering alternate methods of treatment which do not carry the risk which blood transfusions still carry.

The tests used most frequently in determining whether the patient will need a blood transfusion are the determination of hemoglobin concentration and the hematocrit, both of which are reliable tests and are subject to a relatively small error provided that quality control is used in the laboratory at all times. Quality control is especially useful in hemoglobin determinations where there are many chances of error. The instrument used must be a good instrument to start with; it must be calibrated by the laboratory using it, and it must be constantly checked. The errors which are present in the instrument are predictable, are usually uniform in size and direction, and can be compensated for. Another source of error in these determinations is the personnel which perform the tests. The errors due to personnel can be lessened by using well trained medical technologists and by carefully supervising them, but this source of error still cannot be completely eliminated. At the present time, by the use of standard solutions and by periodically checking the hemoglobin determinations with iron analysis, this test should be one of the most accurate in the laboratory. However, the methods used for quality control cannot be performed once and then forgotten, but must be repeated at specified intervals. Methods of determining hemoglobin concentration which require comparison, either with filter paper or colored glass comparators, are to be condemned and have no place in the modern management of hematologic problems.

Assuming that accurate hemoglobin reports are rendered, the next problem to face the physician is the interpretation of these values. We all recognize that the normal value for the male and female is different after puberty and this difference varies from 1 to 1.5 grams. However, these normal values should be determined in a particular laboratory and be valid for the area in which they are used. It has been shown repeatedly that different countries and different parts of a country have varying normal values. This may be due not only to the patients but may also be a result of the methods and instruments which are used. Another factor which influences the interpretation of the hemoglobin is the age of the patient. The normal newborn has a hemoglobin value of around 19 grams per 100 ml. Within the first week of life, this level begins to drop, and the normal hemoglobin level for a child up to about twelve years of age is 11 to 12 grams per 100 ml. Adult levels are not reached until after puberty. It is for this reason that the interpretation of a hemoglobin level of 10 gm. per 100 ml. in a child of seven years of age and in an adult has an entirely different connotation. It is true that it is slightly low for the child but for the adult it is at the level where the diagnosis of anemia should be considered.

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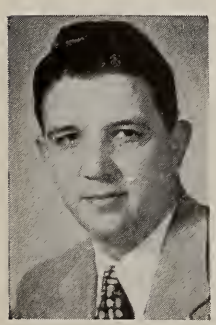

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The diagnosis of anemia depends upon a significantly lowered hemoglobin and hematocrit level, either alone or in combination. Usually minus two times the standard deviation below the normal mean is considered as diagnostic of anemia. By and large the greatest number of patients with anemia seen in routine practice are those having iron deficiency, and even though these patients have markedly lowered hemoglobin levels, they will usually respond dramatically to iron therapy. These patients frequently will show marked clinical improvement within twenty-four to seventy-two hours, even before there is any detectable rise in hemoglobin levels. Once the hemoglobin level has started to rise, it has been calculated as increasing approximately 0.1 to 0.3 grams per 100 ml. per day.

What effect do the above facts have upon the practice of medicine? It has been shown recently in a survey of two hospitals in Michigan which were in the same neighborhood that there was a 2 gram difference in hemoglobin levels when the hemoglobin determinations of both of the laboratories were standardized. When the correction was made in the laboratory where the hemoglobin level had been 2 grams low, the number of blood transfusions in that hospital were reduced by fifty per cent. In this instance, it was estimated that approximately 1,000 patients in a year's time received blood transfusions due to faulty hemogolbin determinations. In the normal course of events, considering the dangers and reactions which could occur as a result of blood transfusions, the morbidity from 1,000 pints of blood would be quite large and there could be a possibility of a mortality.

Blood transfusions should be used only when there is a proper indication. Transfusions should be performed in the treatment of anemias only when they cannot be treated by medications to which most of these will respond, such as iron, liver, et cetera. The main exception is acute blood loss. The patient should be "transfused" when there is an acute hemorrhage, when there is a hemolytic anemia which cannot be controlled, when there is an aplastic anemia, in the anemia of infection, in the severely anemic patient who is to be operated on as an emergency procedure, and in anemia of pregnancy near term.

Since a single unit of blood only imparts to the patient from 1 to 1.5 grams of hemoglobin per 100 ml. of blood, the use of a single unit transfusion is a serious consideration when the dangers which are present in a transfusion are considered. The following risks associated with blood transfusions are well known and are an ever present reminder of the seriousness of the decision to transfuse since many of them cannot be avoided. These dangers are (1) serum hepatitis, (2) bacterial contamination, (3) incompatible transfusion reaction, (4) allergic reactions and (5) sensitization.

In closing, I would like to quote from an editorial by William H. Crosby in *Blood*, 13:1198, 1958. "Thoughtless prescription of blood transfusion is playing Russian roulette with bottles of blood instead of a revolver. While the odds are in the physician's favor that nothing will go wrong, the patient takes the risk."

Reflections on Surgical Tuberculosis

The author reports ninety-eight operations (synovectomy and curettage), eleven of which were recently performed for tuberculosis of the bones and joints. These procedures included operations on twenty-three spines, fifty-one hips, twenty-three knees and one foot. He lists the results and describes in detail the complications encountered and the causes of failure when the result was unsatisfactory. He comments successively on the difficulties of diagnosis, the importance of anatomopathologic point of view, the indications for surgical intervention and their possible abuse, and the role of antibiotics in therapy. He points out the differences that exist between clinical and roentgenographic results, the duration of immobilization, the sclerous type of the disease and the type accompanied by persistent fever. The operation he describes is considered excellent for either children or adults when the onset of disease is recent, but distinctly bad for either in cases of long-standing tuberculosis. In any circumstances, it is a severe and demanding procedure which not every surgeon is competent to perform.—B. Blankoff, M.D., Brussels, Belgium. *Journal of International College of Surgeons*, 31:98-103 (Jan.) 1959.

A Research Aspect of Milieu Therapy in a State Mental Hospital

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THE CONCEPT of treatment for mental illness in large state mental hospitals has been changing radically in the last decade.[1] Two basic innovations in approach have appeared which outline today the "new look" in institutional treatment.

First, a conceptual differentiation has been made between prerequisites for patients in general hospitals and patients in mental hospitals.[2] Usually, the approach to patients in a general hospital is an active one on the part of the staff and a passive one on the part of the patient, that is, the medical team does something to the patient. Like death, playing the role of a patient in a general hospital is a great leveler. The patient is stripped of those things which are important and which distinguish him from others in his ordinary life, and assumes a passive role giving himself up to medical or surgical intervention on the part of the staff. The medical staff regards this stripping down to the bare medical essentials as necessary for the most prompt and efficient dispatch of their duties. In a mental hospital, however, increased emphasis is being placed on the necessity of the patient playing an active role in the treatment process, such as identifying with the goals of the hospital and entering into a treatment partnership.[3] As demonstrated convincingly by Stanton and Schwartz,[4] Greenblatt, York and Brown[1] among others, who the patient is, where he comes from, and the kinds of things he did, felt, and thought before admission are crucial to the treatment process.

The second major approach is the attention being given to the social factors in the hospital environment which seem to be associated with the therapy process. The importance of socio-psychological variables, such as the power structure of the institution, the integration of services and goals of treatment, the consistency of formal and informal social groupings, et cetera, has been emphasized in recent research.[1,4,5,6] Since the patient in the mental hospital is not the passive recipient of the therapeutic influences, it would seem that the social organization would function therapeutically or effectively only as it meets the needs of mentally ill patients. As we will try to show, ignoring these two concepts often leads to treatment influences which increase or perpetuate the personality deviance.

The mental hospital is a large scale organization whose functioning affects the lives of its patients twenty-four hours a day. To its patients it assumes almost a cultural aspect, and one is justified in speaking of the small society of the mental hospital.[7] Like all societies, the mental hospital undergoes changes in structure and function, and because of its relatively small and compact size, offers excellent opportunities to study cultural change. This paper, then, will examine from a socio-psychological point of view the impact upon the social structure of the hospital, and especially the hospital ward, of one instance of social change.

Structural changes occur when all the varied resources of the hospital are brought to bear upon the treatment situation. Often, it is found that these changes set up barriers to the achievement of the expected goals. Sometimes these barriers can be predicted and analyzed by an intensive study of the

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This paper was presented, in another form, at the fall meeting of the Michigan Association of Neuropsychiatric Hospital and Clinic Physicians, 1958.

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hospital social structure, and in this way more effective measures, that is, those compatible with the ongoing structure, can be found to bring about the desired change. The remainder of this paper will examine one such case study.

The focus of our attention, to paraphrase a current psychiatric best-seller, shall be upon the third face of Ypsilanti State Hospital, that is, upon the midnight shift. The incident of cultural change was a minor one. In one of fourteen buildings, the routine of morning medication was changed. It will be instructive to trace the history and ramifications of this change, since we believe it is prototypical of many subtle changes in the hospital social structure.

Let the attendant supervisor describe the situation that existed prior to the change:

"The patients were called at 4:30 A.M. for medication. Since many of the patients got to the treatment room door at the same time, it was necessary for them to stand in line in order for me to give out the medication. Other patients, knowing of this would remain in bed until the line was finished, then I would have to call them again. Some would get up promptly and get their medication, but others would just stay in bed. The attendant on duty, having approximately eighty medications to give out would then have to go back to these individuals sometimes for six or seven times, coaxing, pleading, calling them to get their medication.

All this extra leg work takes up lots of valuable time that the attendant could use in going for trays for ill patients, grooming unkempt patients, et cetera. Also since there are only two attendants for 300 patients, it's rush-rush-rush trying their level best to get everything done in the short time that they have. This leads to a lot of yelling and shouting, and needless to say it has become a very uncomfortable situation for both the patients and the attendants."

Many clinicians, regardless of their theoretical orientation, have stressed the importance to the psychotic patient of the method in which his fragmented ego is brought back to consciousness after sleep[8] Indeed, this return to unwelcome reality, might be one of the hardest tasks the patient is asked to perform. The attendant eloquently described the mutual tensions that attended this important event in the patients' day.

While this procedure caused a great deal of confusion and was upsetting for both patients and staff, the attendants couldn't see any other way to get the patients ready for their assignments, up and dressed and medicated in time for breakfast. In addition to this, after medication all the patients were placed in the day room with all the doors to the dormitories locked because patients were allowed to smoke, and it was thought necessary to keep them all together since some might go back to bed with lighted cigarettes. The patients eventually began asking the supervisor if they couldn't get up at 5:30 A.M. instead of at 4:30 A.M. since so many had nothing to do but sit around until breakfast at 6 or 6:30. These demands placed a great deal of pressure upon the attendant who could not think of any way to modify the procedure.

At this point, the supervisor went to one of the superiors in the nursing service with this problem. In the course of their discussion, the superior came up with this radical suggestion, "Why don't you try carrying their medication to the bed?" To quote the attendant again, "All this inclined to upset me very much, but I kept quiet and did not reveal my thoughts to my superior or my fellow workers." As we shall see later, this attendant was not the only one upset by the idea. As the superior continued talking, trying to sell the idea, the attendant was becoming more and more agitated. Finally the attendant blurted out, "I just don't know how it can possibly be done. It'll make for so much extra work." To this the superior replied, "The only way you will find out is to try it. Be sure to let the patients remain in bed later if they like, and ask the attendants not to lock the dorm doors. If patients prefer to go without breakfast, let them. If they (the patients) know that we trust them and they are on their own, it will surprise you how much better they will behave."

In all, five suggestions were made: (1) Take the medication to the bed, (2) Let patients stay in bed after medication and get up at their own speed, (3) Let patients miss breakfast if they so desire, (4) Let patients smoke in the day room, but don't keep all the non-smoking patients there, (5) Trust the patients and give them responsibility. This plan was put into operation, and we will discuss its actual results later. Let us consider now some of the reverberations this plan had on the hospital as a whole, and then discuss how such incidents can be used to point up underlying feelings and ideologies about mental patients and the functions and purposes of mental hospitals.

As soon as the plan was put into effect, a great many pressures were exerted against its effective implementation. Two major sources were: the attendant group and the registered nurse group. It is not the purpose here to defend or oppose either point of view, nor to claim therapeutic effectiveness for either in terms of its ultimate implications for the patient, but rather to trace down the various equilibria in the hospital that were disturbed by this change.

The attendant group, in this hospital, as well as

others,[1] have a highly integrated informal social organization, which to a large extent mediates their performance in the hospital. When this informal structure is congruent with the formal purposes of the hospital, it facilitates the integration of therapeutic influences upon the patient; but where the purposes of these two structures are divergent, there is a great inhibition of the flow of therapeutic influences to the patient, and in many instances causes further regression of the patient. In this instance, much of this informal pressure was directed against our supervisor. One reason for this was the usual fear of change which has two main components. Firstly, no one knew what the change entailed and what its consequences might be. Just how much more work would it entail? Would it mean learning new procedures and new routines in an already overworked program? Secondly, it seemed to imply a restructuring of attitudes towards the patients, a new role definition of attendant, and finally, a new conception of some of the functions of a mental hospital. Because of these strong forces tending to maintain the status quo, psychological pressures were exerted to persuade the attendant that the new regime was unworkable. Finally strong resistances were put up because of interpersonal factors in the situation. All these forces moving against the implementation of the new plan created tremendous anxiety and ambivalences in our attendent's attitude towards the plan. It was only due to a firm and openly supportive attitude on the part of the nursing office that the plan was carried through.

There were also many mixed reactions on the part of the registered nurses. But here the pressure was of a different nature and resembled the second factor in the attendants' resistance to change. The absence of the first kind of resistance is primarily due to their lack of involvement in giving out morning medication. When this project was mentioned in a group meeting, the opposition centered around concepts such as the following: This is a mental hospital, not a general medical hospital; if we give the patients the medication in bed, they will become even more demanding than they already are; why should we do bedside nursing when the patients don't need it, they are physically able to get up themselves. Finally, there were reactions as to the meanings this new procedure had for some of the staff on a deeper underlying level.

These latter kinds of forces mitigating against the implementation of the new program reveal the ideologies held about mental illness and mental hospitals. It is also revealing of the lack of clarification that some mental hospital administrators themselves have as to the legitimate role of the mental hospital.[4] With the advent of clinics, day and night hospitals, open hospitals and so on, it is a moot point whether a purely mental hospital should be called a hospital at all. Since the traditional concept of a hospital is broken, that is, patients are in bed and things are done to them, perhaps a new name should be chosen. An example of change in this direction is the elimination of the word hospital in the renaming of the famous Boston Psychopathic Hospital. The new name is The Massachusetts Mental Health Center.

The expressions of feelings about mentally ill patients have implications for the views held as to the causative nature of the illness and for ideas about the capabilities of the patients. The feelings expressed here are not uncommon. In our culture, it is still difficult to exonerate persons who fail in the work of living in society and who do not bear an overt physical handicap. Dr. Menninger, speaking in Detroit recently, referred to the high level of expectation held by the staffs of mental hospitals for their patients. In comparing attitudes towards mental patients and towards patients with a patent somatic complaint, such as heart, kidney or broken limb problem, he said with reference to the mentally ill, and we think this is an accurate paraphrase: So often we forget how ill the mentally ill are, and we expect so much from them. The old duality still prevails among so many; if the patient is physically able, then let him do for himself.

It is important to clarify at this point, the consistency of the policy of giving out medication at bedside with the formulation at the beginning of the paper. As it finally emerged, the meaning of bedside administration of medication was that of an action that was done *for* the patient, not *to* him. It created an atmosphere of appreciation on the part of the patient that helped him to identify with the goals of the hospital, rather than made him the passive object of treatment. This subtle distinction carries the load of the staff-patient interactional process that makes for a therapeutic or non-therapeutic intervention.

The change in task necessitated by the new program meant that personnel might potentially have to come into a different kind of role relationship with the patients than the one already established. In some instances the deeper inner determinants of interpersonal relationships were thus challenged, and the prerequisites of the new relationship might prove threatening enough to necessitate a transfer to another ward. (For a pertinent discussion of this important point see Gilbert and Levinson).[9]

After the new program was instituted on the ward, the following changes were made: The lights were turned on at 5:15 A.M. instead of at 4:30 A.M., and medication was carried to the bed. Patients were allowed to stay in bed and miss breakfast if they so wished. Smoking was allowed and the dorms were not locked. Patients were allowed to miss going to their assignment, but regular absences were reported and each case was dealt with on an individual basis.

The results as reported by attendants, patients, and another superior from the nursing office indicated that the attendants found they could do their work in much less time than formerly because the patients were getting up more quickly. Now that the responsibility had been given to them there was generally less missing of meals, and so far no patient has carried a lighted cigarette from the dayroom to a dorm. Both the patients and the attendants now feel that the atmosphere is more relaxed, and the day shift reports a noticeable drop in tension among patients by the time they report on duty. In an opinion poll conducted with the help of a patient, the patients gave a favorable report about the change: "Now they're treating us like human beings," "The hospital must really have our interests at heart," et cetera. The attendants are generally agreed they are more relaxed now and they have time to do more on an individual basis for the patients.

This program, following from the above, has resulted in less disorganization both on the ward and in individuals' behavior, and at the same time the patients are identifying more with the personnel and the purposes of the hospital. The act of administering medication now utilizes more of the resources of the ward than it did previously, and it might be conceptualized that an important step towards achieving the nebulous goal of "milieu therapy" has been taken. Now, many aspects in the environment are brought into the treatment plan, not just the pharmaceutical medication.

Summary

The concept of treatment for mental illness in a mental hospital is changing. Increasing emphasis is being placed upon the active role of the patient and upon the social structural factors involved in the treatment process. What appeared initially as a minor structural change, that is, altering the method of administering morning medication, activated strong and persistent forces to counteract the change. These resistances stemmed from preconceived concepts about mental illness, mental patients, and treatment procedures. Such an analysis is necessary in the changes required to create a therapeutic milieu. In many ways this is analogous to the experimental method of introducing a foreign element into an organism in order to identify various defense mechanisms.

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Bronchiectasis

Enteric coated trypsin tablets (Orenzyme) are effective in potentiating the effect of antibiotics in pulmonary diseases, reports Harry Shubin, M.D., of Philadelphia.

In a series of twenty-eight patients suffering with bronchiectasis, chronic bronchitis, emphysema, tuberculosis or atelectasis, Dr. Shubin gave two 20 mg. tablets q.i.d. for four to six weeks, simultaneously using antibiotics as indicated.

Criteria for evaluation included effect on cough, expectoration, dyspnea, exercise tolerance, wheezing, and general status of the patient. There was improvement in all six criteria among eighteen of the twenty-eight patients, and improvement in four of the criteria among six other patients.

"There were no incompatibilities with any of the antibiotics given in conjunction with oral trypsin therapy," wrote Dr. Shubin.—*Bulletin Germantown Hospital*, Philadelphia, January, 1960.

An Autoclaved Vaccine in the Treatment of Chronic Staphylococcic Infections

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HEMOLYTIC *Staphylococcus aureus* is responsible for a wave of infection, both acute and chronic, which is currently plaguing hospitals and physicians throughout the world. This organism is notorious for its ability to develop a resistance to antibiotics and to chemotherapy. In addition, no heterogenous vaccine is commercially available to aid in combating staphylococcic infections, although much time and money has been expended to develop such a control method.

As the staphylococci showed increasing resistance to antibiotics, our attention turned to various types of vaccines. One vaccine proved effective in chronic cases and has maintained this efficacy over a period of four years.

Methods and Procedure

We used the conventional heat-killed vaccine and an autoclaved vaccine made from cultures of hemolytic *Staphylococcus aureus,* coagulase positive, in twelve cases of a comparison series. All the patients receiving the vaccines had acute or chronic furunculosis. They were given physical examinations and had routine laboratory work done. Using the double blind technique, neither the patient nor the person administering the vaccine knew which vaccine was being used. The vaccines were not autogenous.

The vaccine was administered at a dosage of 0.1 ml. of diluted vaccine (500,000 organisms per ml.) until a skin reaction was obtained. It was given intracutaneously and the dilution of the vaccine was cut down until the patient tolerated a dosage of 0.2 ml. of vaccine containing 3 billion organisms per ml., given intracutaneously. The vaccine was then administered subcutaneously at weekly intervals until the patient was clear of lesions for three months. Thereafter, the injection interval was gradually increased up to three months.

Autoclaved Vaccine

The autoclaved vaccine used in this series was prepared in the following manner:

1. A twenty-four-hour culture of hemolytic *Staphylococcus aureus* from a heavily-inoculated blood agar plate or slant was used. The blood agar contained 8 to 10 per cent human blood. If possible, the medium was inoculated directly from a clinical specimen.

2. The growth was washed from the blood agar with sterile normal saline and emulsified in saline to give a very dense suspension. This suspension was diluted until a turbidity of approximately 3 billion organisms per ml. was reached.

3. The vaccine was autoclaved at 15 pounds pressure (121° C.) for one-and-one-half to two-and-one-half hours.

4. No preservative was added to the vaccines.

Discussion

The autoclaved vaccine produced clinical immunity, in that the patients no longer developed recurrent furuncles. The controls, patients who received heat-killed vaccines, continued to develop furuncles.

We felt that our results were readily explained through the *in vitro* experiments reported by Per Oeding.[1] When autoclaved, deep-cell antigens normally masked by surface antigens were released. The surface antigens are not destroyed by heating to 60° C. for one hour or by the presence of phenol ordinarily used in the preservation of vaccines.

Our vaccines were prepared from three sources: a culture of a brain abscess, one from a generalized furunculosis, and the other from a chronic osteomyelitis. This fairly well rules out the possibility of stumbling on a single antigenic strain.

Conclusions

Autoclaved vaccines prepared from hemolytic *Staphylococcus aureus* produced better clinical results in staphylococcic skin infections than available vaccines prepared by other methods.

Autoclaving apparently released deep cell antigens which are ordinarily masked by surface antigens.

Reference

1. Oeding, Per: Serological typing of staphylococci; investigations of serological, chemical and physical properties of antigens. Acta path. et microbiol. scandinav., 33:312-323, 1953.

100 Maple Street
Parchment, Michigan

Medicine—Its Future

Ophthalmology

The Michigan Triological Society held a meeting in Lansing on December 17, 1959. The main speaker was Harold F. Falls, M.D., Associate Professor of Ophthalmology at the University Medical Center in Ann Arbor, who was recently elected Vice-Speaker of the House of Delegates of the Michigan State Medical Society.

Dr. Falls discussed the National Foundation for Eye Care. This National Foundation was established about four years ago by a group of ophthalmologists representing the profession, the American Ophthalmological Society, the American Academy of Ophthalmology and Otolaryngology, the Section on Ophthalmology of the American Medical Association. The stimulus for this action was a growing threat of certain practitioners, not doctors of medicine, to enter into eye care, diagnosis and treatment, and an effort to take over, for their exclusive field, the refraction of eyes and distribution of glasses.

Bills were introduced into several state legislatures in an attempt to accomplish this purpose. Suggestions were also made that these non-doctors be allowed to use drops, to prescribe, and even to do minor surgical procedures. The National Foundation for Eye Care was organized to prepare information and instruction for doctors and others regarding the various groups involved in ophthalmology, in eye care, and to prepare literature which can be used for instructional purposes.

There are three groups involved:

(1) the oculist or ophthalmologist who has a medical degree and has taken recognized specialty training,

(2) the optometrist, who is not a doctor though they many times claim the title, who have shorter courses in refraction and the fitting of glasses, and

(3) the optician, whose work is to take the prescription and produce a pair of glasses according to the instructions given him; and to deliver the glasses to the patient—or return the glasses to the ophthalmologist or optometrist who will do his own delivering, adjusting and making the patient happy.

Even many of our doctors of medicine do not understand the difference between these three groups, neither do the parents, the young people, or the school, whose responsibility it is to take care of their own eyes or the eyes of their dependents, or to recognize the need for eye care. These groups should also have some basic information so the proper care may be maintained.

The National Foundation has published a number of pamphlets and is producing more which can and should be distributed where they will do the most good, and help retard another encroachment on the practice of medicine.

Psychiatry and Neurology

This field of medicine is now being very thoroughly encroached upon. Psychiatry is a rapidly expanding field, has assumed real stature and is solving many problems of patients. We have even

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seen estimates that probably 40% or 50% of all people at one time or another need the attention of this specialty, but there is a group encroaching.

There have been bills in some legislatures to allow psychologists various privileges, recognizing them as a quasi-medical profession and extending their activity. Most of our schools are using certain of their services very properly, except that they should not make diagnoses and prescribe treatment.

Physical Medicine

Here is another specialty which has long been recognized but not generally or extensively. They have a group—a national board—similar to the Board of Surgery, the Board of Ophthalmology, the Board of Internal Medicine and the Board of Pediatrics. There are nineteen such boards. The National Board of Physical Medicine was established in 1947. We have a number of doctors practicing in this field and doing very creditable work primarily in rehabilitation. If the profession had recognized this field fifty years ago it might possibly have forestalled osteopathy or chiropractic and other groups of that nature.

Geriatrics

The field of geriatrics is expanding by leaps and bounds. The good treatment the profession has given our patients plus the establishment of better living conditions, better housing, clothing, food and sanitary conditions, have so extended the life expectancy that it has been doubled in the memory of many of our practitioners. No matter what his specialty, every one of us is involved in this field because our older patient is prone to develop very obvious or very obscure conditions which interfere with his comfort, his mental attitude and his happiness. It is the doctor's responsibility and should be his joy and pleasure to search for the reason for these conditions in his patient and find the remedy.

This brings up the next topic which is:

"Presidential Program"

Milton A. Darling, M.D., President of the Michigan State Medical Society, and Kenneth H. Johnson, M.D., President-Elect, at the November meeting of The Council, offered this "Presidents Plan."

They had been conferring with group advisors and had worked out a program—a very elaborate program of action during the next five years. The Michigan State Medical Society will reach the 100th anniversary of its re-establishment immediately after the Civil War. Quite properly this will be called in 1965, the Society's 100th birthday.

Doctors Darling and Johnson whom we have selected to lead us have suggested that during the next five years, the medical profession devote all of its energy, singly and collectively, to adding "five more good years" to the average life expectancy of the people of Michigan. The plan is in its planning stage but the concept, the accomplishment and execution, are challenges which we cannot afford to ignore.

Will the Presidential Program add five years to the life expectancy, or will it make those last five years much better, healthier, contented years which, if not having extended the life span as measured by the clock, will have extended it as measured by satisfaction, accomplishment and contentment. They could accomplish both. What a task—what a vision—what a challenge!

Congratulations, Presidents Darling and Johnson!

Governmental Encroachment

Social Security

The Forand Bill will be pushed this year as a campaign measure, this being a presidential election year, and certain people will be out for votes. The problem of the aged has been stressed and emphasized on all sides. The American Medical Association and our state medical societies have done tremendous things to improve the lot of our aged, those over 65 who until recently could not get health insurance except through Blue Cross-Blue Shield. The prepayment plans accepted them in groups and did not cancel when they reached age 65, as the commercial companies had done.

Immediately following the American Medical Association meeting in Minneapolis in December 1958, practically all of the Blue Shield plans established special policies available to the older age group, by subscribing individually. It is a modified policy —had to be—but it is essentially adequate. These policies were set up specifically for the older citizens with meager or inadequate incomes. They were never intended as service policies to cover those of adequate income, but are available on an indemnity basis to cancel out the block which had always been against older people taking insurance.

The Forand Bill will cover everybody who is drawing social security benefits, no matter what his income, and that in spite of the social security program and rapidly increasing rates which must be paid by every employed person and by every employer. The sole exception so far as we know is the medical profession —as beneficiaries not as contributors. The medical profession has opposed the Forand Bill and offers as a substitute pre-paid medical service to cover those of meager and inadequate incomes. Michigan Senator

McNamara held subcommittee investigations throughout the country, winding up in Michigan. He was studying questions of old age and its needs, especially from a health standpoint. Much of the testimony as published claimed that the Blue Cross-Blue Shield programs were completely inadequate. We believe this is an entirely false statement and that it can be proved as our doctors join in the program established for the older people, these people will receive the best services possible.

Thousands of these people, if it were not for the inadequate payments from social security, would be on relief. Most doctors would be taking care of them either for free or on welfare payments. The medical profession can show its cooperation and willingness to help its older citizens and their families. Private practice and private programs can care for these patients without boosting the social security tax program to the point it is now being headed. We are now paying 6 per cent for Social Security, it will go up again and again. Every time the fund becomes inadequate, Congress can increase the tax.

The Social Security Act does need a modification in the matter of cancelling of benefit to our older people. The present bill provides that if a person works after he reaches his retirement age and earns $80 a month or up to $1,200 a year, his benefits are forfeited—all of them if he has earned $1,200 and all of them for every month in which he earned $80. This penalty should be removed completely. A great majority of our older people, when they reach their retirement age, have very definitely cut down their earnings in order not to lose their benefits, but this country needs the mature judgment, the trained labor, and the added manpower to go ahead in the expansion of industry which is evident for the coming years.

The Keogh Bill

As everybody knows, this is a measure to allow self-employed and professional people to set up meager retiring funds before taxes, similar to but much less than that in force in industry for years. The Bill has passed the House and is now in the Senate.

Senator McNamara has replied in some correspondence to the effect that we do not need this Bill because the social security program will take care of us. There is absolutely no connection between the two, but that has been the tone of his letters.

This year, a campaign year, is a good opportunity to express to our senators our feelings about these two measures. Letters or contacts will help, and here are two measures the medical profession can and does endorse—the Keogh Bill and the amendment to the Social Security Act eliminating the penalty for working.

Tetanus Protection Should Be in Polio Vaccine

In an editorial in the December, 1959 issue of *New Physician*, official journal of The Student American Medical Association, Edward R. Pinckney, M.D., the journal's editor, made a two-fold plea to the medical profession and the pharmaceutical industry to wipe out lockjaw. Doctors should make as much a habit to ask about tetanus immunizations as they do about polio immunizations. The drug companies should combine tetanus toxoid with polio vaccine so one series of "shots" will protect against both dangers.

"Of equal importance," Doctor Pinckney said, "doctors must make patients aware of the fact that they, or their children, have been immunized, in order to inform any doctor in the future who may have to treat a subsequent injury."

With 75 per cent of those who have "tetanus-prone" wounds *needing* antitoxin (which can be as dangerous as the disease itself because of possible allergic reactions) there can be no doubt that prevention is almost mandatory. That the vaccine works has been proved during World War II when there was only one case of lockjaw in more than 160,000 battle injuries. Tetanus prophylaxis was mandatory for service men.

Environmental Health

Twenty-five sanitarians from local health units in Michigan and Illinois completed a six-week course in environmental health at The University of Michigan School of Public Health February 5, 1960.

Certificates of completion were awarded to the group by Dr. Albert Heustis, Michigan Health Commissioner, and Prof. William Gibson, acting dean of the school.

Instruction on the theory and basic concepts of current sanitation practices was given by University of Michigan staff members and visiting lecturers.

The Michigan Department of Health, National Sanitation Foundation, International Association of Milk and Food Sanitation and the Public Health Service participated with the University of Michigan in presenting the course, and certain field exercises.

Are you driving with an expired driver's license? The law requires a renewal on your birthday every three years. Unfortunately, there has been no method of notification. You are expected to remember, and may be issued a summons if the permit has expired.

MCI Technical Exhibits

Abbott Laboratories **Booth No. 54**
North Chicago, Ill.

Of particular interest to physicians at the Abbott booth will be the presentation of Desoxyn Gradumets —the new long-acting dosage form now being used in obesity cases. Abbott will also display antibiotics, hospital solutions and equipment. Our representatives will be on hand to assist you in every way possible.

A. S. Aloe Company **Booth No. 60**
St. Louis, Mo.

We will feature, this year, our expanded line of Aloe Swedish Stainless instruments, Diagnostic equipment, Examining and treatment furniture as well as items for general laboratory procedure.

Tom and Wallie Boufford will be on hand to greet friends at our old stand—Booth 60.

American Cyanamid Company **Booth No. 47**
Danbury, Conn.

AMERICAN CYANAMID COMPANY, SURGICAL PRODUCTS DIVISION, 1 Casper Street, Danbury, Conn.—DAVIS & GECK brand SURGILOPE SP SUTURES; VIM HYPODERMIC NEEDLES and SYRINGES, SURGAIRE deodorant spray, TOPA-SIL-Silicone skin protectant, SUPPLON elastic foam bandage.

American Ferment Company, Inc. **Booth No. 48**
New York, N. Y.

Enquire at the booth concerning Tod'l, the sudsing, emollient, antibacterial skin cleanser as an aid in treatment and prevention of various skin affections. Also available: *Caroid and Bile Salts Tablets* as a physiologic complement in modern methods of therapy, *Falgos* for prompt analgesia, *Alcaroid Antacid* and *Supligol* for biliary therapy.

Atlas Pharmaceutical Laboratories, Inc. **Booth No. 25**
Detroit, Mich.

Atlas Pharmaceutical Laboratories, Manufacturers of Quality Injectables Exclusively.

Audio-Digest Foundation **Booth No. 37**
Glendale, Calif.

Audio-Digest Foundation (a non-profit subsidiary of the California Medical Association), gives the busy physician a time-saving tour through the best of some 600 current medical journals, plus the highlights of scores of national meetings. Time-proven, but still unique—these medical tape-recorded services are now offered in six series—General Practice (issued weekly and bi-weekly), and Pediatrics, Internal Medicine, Surgery, Obstetrics and Gynecology, Anesthesiology (all issued semi-monthly). The one-hour long tapes are selected and reviewed by a professional Board of Editors. Digest subscribers listen in their car, home or office. The Foundation also offers medical lectures by nationally-recognized authorities.

Ayerst Laboratories **Booth No. 52**
Chicago, Ill.

Ayerst's exhibit features "HIBITANE" Lozenges and "MUREL" Sustained Action Tablets.

"HIBITANE" Lozenges, for prevention and treatment of mouth and throat infections, have a wide range of antimicrobial activity with an unusually wide margin of safety.

"MUREL" S-A Tablets provide potent antispasmodic action with minimal side effects.

Baker Laboratories, Inc. **Booth No. 8**
Cleveland, Ohio

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding are on display.

Baker representatives will be glad to discuss with you the special features of Baker Milk products which promote better tolerance, less colic, better gain and improved tissue turgor for bottle-fed infants.

Barry Laboratories, Inc. **Booth No. 15**
Detroit, Mich.

TWO VERY IMPORTANT PRODUCTS

INSECT ANTIGEN No. 107—Protection against reactions from Bee, Wasp, Hornet stings and Mosquito bites.

For patients who react to additional insects, the antigens for these may be included on prescription.

For testing and treatment of your allergic patients, use the proven Immunorex method.

MERPHENE—The germicide that "kills" Antibiotic resistant Staphylococcus aureus. Non-irritating to mucous linings.

George A. Breon & Co. **Booth No. 57**
New York, N. Y.

Ciba Pharmaceutical Products, Inc. **Booth No. 51**
Summit, N. J.

Esidrix is hydrochlorothiazide, an improved analog of chlorothiazide. Milligram-for-milligram, it is the most effective oral diuretic-antihypertensive known. Therapeutically, Esidrix is 10 to 15 times more potent than chlorothiazide. Weight losses up to 56 pounds have been reported. In many cases Esidrix caused copious diuresis in patients unresponsive to other oral and/or parenteral diuretics. Side effects are usually mild, infrequent and readily controlled.

Coca-Cola Company **Booth Nos. 63-64**
Atlanta, Ga.

Ice-cold Coca-Cola served through the courtesy and cooperation of the Detroit Coca-Cola Bottling Company and The Coca-Cola Company.

Cunningham Drug Stores, Inc. **Booth No. 62**
Detroit, Mich.

Registered Graduate Pharmacists will staff a display featuring the many new prescription pharmaceuticals available at all Cunningham Prescription Departments. Other Cunningham services available to physicians, such as prescription blanks and product information will also be featured.

Desitin Chemical Company **Booth No. 4**
Providence, R. I.

DESITIN OINTMENT: For treatment of burns, ulcers, diaper rash, abraisons, etc.

DESITIN POWDER: Relieves chafing, sunburn, diaper rash, etc.

DESITIN SUPPOSITORIES and RECTAL OINTMENT: Relieve pain and itching in uncomplicated hemorrhoids, fissures.

DESITIN BABY LOTION: Protective, antiseptic.

DESITIN ACNE CREAM: A non-staining, flesh-tinted "Medicream" for the treatment of Acne Vulgaris.
DESITIN COSMETIC & NURSERY SOAP: Super-mild.
DESITIN SUPPOSITORIES with HYDROCORTISONE: Prompt response to inflammatory conditions in proctitis, severe pruritus, edema.

Detroit X-Ray Sales Company **Booth Nos. 38-39**
Detroit, Mich.

The Detroit X-Ray Sales Company welcomes the opportunity to display its new contemporary line of X-Ray Equipment for our many friends in the profession and extends a cordial invitation to visit our booths. We look forward to demonstrating this entire new design to you at this meeting.

Doho Chemical Corporation **Booth No. 49**
New York, N. Y.

DOHO CHEMICAL CORPORATION is pleased to exhibit:
AURALGAN—Otitis Media and removal of Cerumen.
OTOSMOSAN—Fungicidal and Bactericidal in the suppurative and aural dermatomycotic ears.
RHINALGAN—Nasal decongestant free from systemic or circulatory effect.
LARYLGAN—Throat spray and gargle for infectious and non-infectious sore throat involvements.
Mallon Chemical Corporation, Division of DOHO:
RECTALGAN—For relief of pain and discomfiture in hemorrhoids, pruritus and perineal suturing.
DERMOPLAST—An Aerosol Spray for surface pain, burns and abrasions; Obs. & Gyn. use.

Eaton Laboratories, Inc. **Booth No. 43**
Norwich, N. Y.

Altafur® (brand of furaldtadone), the first nitrofuran effective orally in systemic bacterial infections. High clinical efficacy in pneumonias, bronchiolitis, bronchitis, tonsillitis and otitis media; also in soft tissue infections, cellulitis and abscess, surgical wound infections and infected lacerations.

Ferndale Surgical, Inc., Division **Booth No. 53**
J. F. Hartz Company
Ferndale, Mich.

Latest surgical and diagnostic instruments and equipment. You are invited to register for your new Ferndale Catalog, and for samples of our latest pharmaceutical products. Ask for quotation on special formulas: Tablets, ointments, and liquids according to your particular specification.

C. A. Fisher & Sons **Booth No. 29**
Toledo, Ohio

Your ZIMMER distributor, C. A. Fisher & Sons, extends a cordial invitation to visit their booth where the latest in Fracture Equipment and Appliances will be on exhibit. Of special interest is the new Dual Type All Rubber Walking Heel.

E. Fougera & Company, Inc. **Booth No. 58**
Hicksville, N. Y.

Fuller Pharmaceutical Company **Booth No. 13**
Minneapolis, Minn.

TUCKS—soft, cotton flannel pads medicated with witch hazel and glycerin; will be featured at the Fuller exhibit. You will find TUCKS convenient, safe, and effective in the management of pruritus ani, anorectal surgical wounds, postpartum hemorrhoids and other frequently encountered conditions. A supply of TUCKS for trial will be gladly sent you on request.

Geigy Chemical Corporation **Booth No. 44**
Yonkers, N. Y.

GEIGY PHARMACEUTICALS cordially invites Members and Guests of the Association to visit its technical display. Tofranil,® a new agent, specifically for depression, will be featured. Information on other products valuable in the therapy of rheumatic, metabolic, dermatologic and cardio-vascular diseases will be presented by personnel in attendance.

Gray Manufacturing Company **Booth No. 27**
Hartford, Conn.

Great Books of the Western World **Booth No. 34**
Grand Rapids, Mich.

The Great Ideas Program featuring the master-key to the Great Books . . . the SYNTOPICON
The Great Ideas Program, a new advancement in liberal education, is built around the revolutionary Syntopicon. This master-key "Idea-Indexes" all the Great Books, making it possible to find what the great writers and thinkers said about *any* ideas in minutes. The Program will help business and professional people, students, graduates—or anyone interested in exploring the fascinating world of great ideas.

Hack Shoe Company **Booth No. 1**
Detroit, Mich.

This month, HACK SHOE CO. completes its 44th year of service as "Shoe Fitters to the Profession."
On display will be the supportive types and the purely prescription shoes which have made this firm No. 1 in its field.
RIPPLE® Sole shoes, developed by the founder of the HACK SHOE CO. and now distributed Coast-to-Coast and internationally, will also be shown.

G. A. Ingram Company **Booth Nos. 65-66**
Detroit, Mich.

"Everything that's new!"
"Just made for my practice"
"Won't my girl love that!"
These enviable quotes will apply to the display which the G. A. Ingram Company will have at the Michigan Clinical Institute. You can't afford to miss this display.

Institute of Public Information **Booth No. 7**
New York, N. Y.

CONGENERS: CHEMISTRY—PHARMACOLOGY
Congeners (fusel oil, aldehydes, acids, etc.) are substances found in alcoholic beverages that provide their taste, bouquet and color. In large amounts, however, congeners may produce toxic or irritating reactions. This exhibit presents the results of quantitative chemical analyses of congeners found in six leading types of distilled spirits along with correlated acute oral toxicity studies obtained on rats and irritation studies using the rabbit eye technique. (Pertinent literature will be available.)

A. Kuhlman & Company **Booth No. 30**
Detroit, Mich.

The A. Kuhlman & Company cordially invites you to visit Booth No. 30 and discuss with us our complete line of examining room furniture, diagnostic instruments, surgical instruments and physical therapy equipment.

Lederle Laboratories **Booth No. 33**
Pearl River, N. Y.

You are cordially invited to visit the Lederle booth where our medical representatives will be in attendance to provide the latest information and literature available on our line.
Featured will be many of our dependable quality products.

Eli Lilly & Company **Booth No. 24**
Indianapolis 6, Ind.

You are cordially invited to visit the Lilly exhibit located in Booth No. 24. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

Lloyd Brothers, Inc. **Booth No. 22**
Cincinnati, Ohio

Welcome to the Lloyd Brothers exhibit. Our professionally trained sales representatives will be happy to greet you and discuss the merits of our products in your practice. Of particular interest will be a new booklet on erythropoietin, the erythropoietic hormone.

Maico Hearing Service **Booth No. 67**
Detroit, Mich.

The new Maico Hearing Aid weighing less than one-half ounce is so small that the entire unit consisting of transmitter, microphone, receiver, battery and ear mold is worn in the ear. A complete line of instruments to take care of cases from the borderline to the profoundly deaf.
Ninety per cent of all precision hearing test instruments used in America by ear physicians are Maico.

Marion Laboratories, Inc. **Booth No. 26**
Kansas City, Mo.

One Duotrate Plateau Capsule morning and evening resulted in dosage decrease of 878 nitroglycerin tablets per week for a group of 50 anginal patients.
Information relating to the various potencies and combinations of Duotrate Plateau Capsules, as well as a complete reprint on the above study are available at the Marion Booth.

Mead Johnson & Company **Booth No. 70**
Evansville, Ind.

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.

Medco Products Company **Booth No. 31**
Tulsa 12, Okla.

Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a SINGLE Three-Way Sound Applicator.
The MEDCO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Medical Protective Company **Booth No. 32**
Fort Wayne, Ind.

As the "No. 1 Malpractice Insurer" *(Medical Economics,* February 3, 1958), The Medical Protective Company offers unexcelled coverage. With exceptional proficiency in defense, so essential to the Doctor's protection today, its experience in successfully handling 80,000 claims and suits during sixty-one years of Professional Protection Exclusively is unparalleled in the professional liability field.

Merck Sharp & Dohme **Booth No. 23**
Philadelphia, Pa.

A new adrenocortical steroid is featured at the Merck Sharp & Dohme booth. "DECADRON" dexamethasone possesses all the basic actions and effects of other glucocorticoids but in different degree. Its anti-inflammatory activity is more potent on a weight basis than any other known glucocorticoid. Electrolyte imbalance is not ordinarily a therapeutic problem.
"HydroDIURIL," a new, orally effective, non-mercurial diuretic-antihypertensive agent is also of interest. This compound is the most potent diuretic agent presently available, equaling or exceeding even the most potent parenteral organomercurials in diuretic activity.
Technically trained personnel will be present to discuss these and other subjects of clinical interest.

Meyer and Company **Booth No. 61**
St. Clair Shores, Mich.

Many functional disturbances of the alimentary tract can be traced to inadequate secretion of digestive enzymes rather than to hyperacidity of the stomach.
In fact, many patients, particularly among those advanced in years, show a relative deficiency of acid and ought to be treated with digestive enzymes rather than antacids.
Almezyme, a new product containing two new digestive enzymes, of non-animal origin, for the digestion of carbohydrates and proteins, combined with dehydrocholic acid for its action on fats will be discussed by Meyer representatives.
The fact that the enzymes contained in Almezyme do not require enteric coating greatly enhances the effectiveness of this product because the carbohydrate splitting and proteolytic activity begins the moment Almezyme reaches the stomach and continues throughout the bowel.

Michigan Medical Service **Booth No. 3**
Detroit, Mich.

You are cordially invited to visit our booth to obtain current information regarding Michigan Medical Service (Blue Shield). Our representatives will gladly visit with you and answer any questions you may have with regard to your Blue Shield Plan.

Miles Reproducer Company **Booth No. 55**
New York, N. Y.

Demonstrating "WALKIE-RECORDALL," LIGHT-WEIGHT, MINIATURE, SELF-POWERED BRIEF-CASE-CONFERENCE-RECORDER-TRANSCRIBER. Solves the Record-Keeping Problem in and out of the office. No plug in. Records within sixty feet, filtering interfering noises — OFFICE-BEDSIDE INTERVIEWS, LECTURES, STAFF MEETINGS, CONSULTATIONS, HOSPITAL ROUNDS, PERSONNEL TRAINING, TELEPHONE. Excludes everything except dictation in car, operating room. STARTS-STOPS AUTOMATICALLY BY TELEPHONE OR VOICE-ACTUATION—operating room, psychiatry, personnel training. CASE HISTORIES of permanent, compact, tamper-proof, legally valuable RECORDINGS at 3 cents PER HOUR. AUTOMATICALLY INDEXED for immediate location. Need no transcribing. Identifiable, Filable, Mailable. Featherweight file exceeding 100 belts—to three or to eight hours each—can be carried in one's pocket. No other recorder like it in the world.

Milex Products **Booth No. 59**
Oak Park, Mich.

The Milex Company presents a unique line of Gynecic Specialties—featuring Milex Folding and Shapeable Pessaries, Crescent Diaphragm, Trimo-San (an im-

proved therapeutic treatment for trichomonas, monilia and non-specific bacterial infections), a "cancer detection unit," Amono-Cerv Gel—a postoperative treatment following cautery or conization and marital and menopause guides for patients.

Miller Surgical Company **Booth No. 42**
Chicago, Ill.

See the Miller Electro-Surgical Units and Accessories such as Snares, Suction-Coagulation attachments, Grasping Forceps, etc. These Units cut, desiccate, fulgurate, coagulate and may be used for most delicate work up to light major surgery. Also a complete line of Diagnostic Equipment consisting of Illuminated Otoscope, Ophthalmoscope, Eyespud with Magnet, Transillumination Lamps, Mirro Headlite, Vaginal Speculum with Smoke Ejector and Gorsch Operating scopes and stainless steel proctoscopes, all sizes, with magnification. Available also, the Variable Wall Rayostat which converts battery operated equipment to electric.

MSMS Life, Health and Accident Insurance Program **Booth No. 20**
Lansing, Mich.

You are cordially invited to stop at Booth No. 20 and discuss the MSMS Life, Health and Accident Insurance Program.
Representatives of the MSMS carriers will be present to answer questions concerning your MSMS group coverage.

Parke, Davis & Company **Booth Nos. 40-41**
Detroit, Mich.

Medical Service members of our staff will be in attendance at our booth to discuss important Parke-Davis specialties which will be on display.

Pfizer Laboratories **Booth No. 36**
Brooklyn, N. Y.

The Pfizer Laboratories' display has been specifically arranged for your convenience and to give you the maximum in quick service and product information. To make your visit worthwhile, technically trained Medical Service Representatives will be on hand to inform you of the latest developments in Pfizer Research.

Professional Life & Casualty Company **Booth No. 68**
Chicago, Ill.

Purdue Frederick Company **Booth Nos. 71-72**
New York, N. Y.

The Purdue Frederick Company will present:
Senokot: Neuroperistaltic constipation corrective containing the total senna glycosides..
Arthropan: New rapidly absorbed choline salicylate, producing anti-inflammatory, analgesic, antipyretic effects in short time without gastric irritation.
Pharycidin Concentrate: First triple-action throat medication.
Cerumenex: A cerumenolytic containing Cerapon, an effective new surfactant.
Pre-mens: for the treatment of premenstrual tension.

Randolph Surgical Supply Company **Booth Nos. 10-11**
Detroit, Mich.

Randolph Surgical will display many items of interest for the medical profession including several new ones. We cordially invite you to visit our booth which will be staffed by experienced and competent personnel to assist you and to welcome our many old friends.

R. J. Reynolds Tobacco Company **Booth No. 5**
Winston-Salem, N. C.

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King Sige Cigarettes.

A. H. Robins Company, Inc. **Booth No. 6**
Richmond, Va.

Pabalate, Pabalate-Sodium Free, and Pabalate-HC (with hydrocortisone) are co-featured with Donnazyme, the combination of Entozyme and Donnatal components for the complaint of "nervous indigestion" and many symptoms of functional GI disorders complicated by inadequate digestion. Also shown are Robaxin (tablets and the new, fast-acting Injectable), Dimetane Expectorant and Dimetane Expectorant-DC.

Roche Laboratories **Booth No. 14**
Nutley, N. J.

You are cordially invited to visit the Roche booth where our medical representatives will provide you with the latest information and literature on our products.

William H. Rorer, Inc. **Booth No. 35**
Philadelphia, Pa.

Features: MAALOX, the non-consipating, pleasant tasting antacid, and the new double strength tablet, MAALOX NO. 2. Other product highlights are ASCRIPTIN, a rapid-acting professional salicylate, FERMALOX, a buffered iron preparation and PAREPECTOLIN, a pleasant tasting antidiarrheal for patients of all ages. Representatives will be on hand to answer questions about these and other Rorer products.

Ross Laboratories, Inc. **Booth No. 17**
Columbus, Ohio

Ross Laboratories, who also manufactures Similac, features SIMILAC WITH IRON, a new prepared infant formula supplying 12 mg of ferrous iron per quart of formula. SIMILAC WITH IRON is designed for use when iron is indicated in infancy, for maintenance of iron stores, to provide prophylaxis against iron-deficiency anemia and to support the normal diet. Some special indications for use are following placental or traumatic blood loss, for prematures and twins, for the pallid, irritable, anorectic infant with an unsatisfactory blood picture and following prolonged infection or diarrhea.

The Rupp & Bowman Company **Booth No. 45**
Highland Park, Mich.

To all of our friends in the medical profession, once again we cordially invite you to stop at our booth. Have a visit with your representative and see what we may have in new items.

Sanborn Company **Booth No. 73**
Cambridge, Mass.

New ELECTROCARDIOGRAPHS of advanced design and function, as well as latest models of other instruments for diagnostic use, will be displayed and demonstrated at the Sanborn Company Booth No. 73. Demonstrations and/or data will also be available on Sanborn instruments for biophysical research—single and multi-channel recording systems, monitoring oscilloscopes and physiological transducers.
Qualified Sanborn representatives will be pleased to answer questions and assist you with technical problems.

Sandoz Pharmaceuticals **Booth No. 28**
Hanover, N. J.

Sandoz Pharmaceuticals cordially invites you to visit our display at booth No. 28.
MELLARIL—the first potent tranquilizer with a selective action (i.e.—no action on vomiting centers). This unique action gives specific psychic relaxation with safety at all dosage levels.
PLEXONAL—preferred daytime sedative—relaxant. Superior to both the barbiturates and Meprobamates.
CAFERGOT PB—the most effective oral medication for the relief of migraine headache with G.I. disturbance accompanied by tension.
Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

W. B. Saunders Company **Booth No. 2**
Philadelphia, Pa.

Harold Rozema will again be on hand with the complete Saunders line of books. New 1960 titles of special Clinical interest include: CONN'S Current Therapy for 1960, Bakwin & Bakwin: BEHAVIOR IN CHILDREN, Poppen: NEUROSURGICAL TECHNIQUES, and the New Christopher Textbook of Surgery, edited by Loyal Davis.

Schering Corporation **Booth No. 18**
Bloomfield, N. J.

Schering Corporation welcomes the members of the Michigan Clinical Institute. Featured products include Miradon, the new oral anticoagulant with predictable control proved by 5 years' pre-introductory clinical experience; Fulvicin, the first oral antifungal antibiotic for ringworm; Delenar, the new corticoid-relaxant-analgesic that keeps the rheumatic man in action, and Rela, a new muscle relaxant-analgesic that eases sprains, strains and low back pains.

Julius Schmid, Inc. **Booth No. 21**
New York, N. Y.

An interesting and informative exhibit featuring IMMOLIN Cream-Jel for use without a diaphragm; RAMSES Flexible Cushioned Diaphragm; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid for vaginal trichomoniasis therapy; and XXXX (Fourex) Skin Condoms, RAMSES and SHEIK Rubber Condoms for the control of trichomonal re-infection.

G. D. Searle & Company **Booth No. 69**
Chicago, Ill.

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research. Featured will be Mornidine, the new synthetic recommended to prevent or stop nausea and vomiting associated with pregnancy, anaesthesia, radiotherapy and gastroenteritis; Dartal, the new tranquilizing agent which controls activities associated with anxiety states and other neuroses; Enovid, the new synthetic steroid for treatment of various menstrual disorders; and Nilevar, the new anabolic agent.
Also featured will be Vallestril, the new synthetic estrogen with extremely low incidence of side reactions; Pro-Banthine and Pro-Banthine with Dartal, the standards in anti-cholinergic therapy; and Dramamine and Dramamine-D, for the prevention and treatment of motion sickness and other nauseas.

Smith, Kline & French Laboratories **Booth No. 19**
Philadelphia, Pa.

S.K.F. features (1) new "Ornade" Spansule® capsules, the unique oral nasal decongestant that contains a special drying agent in addition to a decongestant and an antihistamine; (2) new "Fortespan" capsules, high potency multivitamins (therapeutic formula) in Spansule® *sustained release* capsules; (3) new "Eskatrol" Spansule® capsules, the tranquilized-anorexigenic preparation that relieves the underlying psychic stress, imparts a sense of well-being and curbs the appetite in psychogenic overweight; and (4) Stelazine® Tablets, the outstanding tranquilizer because it relieves anxiety whether expressed as agitation and tension, or as apathy, listlessness and emotional fatigue.

E. R. Squibb & Sons **Booth No. 12**
New York, N. Y.

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the Medical Profession in new products or improvements in products already marketed.
At Booth No. 12, we are pleased to present up-to-date information on these advances for your consideration.

The Stuart Company **Booth No. 9**
Pasadena, Calif.

The Stuart representatives extend a cordial invitation to physicians attending this meeting to discuss with them the latest pharmaceutical developments of The Stuart Company. Especially featured will be EFFERGEL, EFFERSYL and EFFERSYLLIUM, the first effervescent bulk laxatives. Also featured will be MULVIDREN—the Softab vitamin for all age groups.

Testagar & Company, Inc. **Booth No. 50**
Detroit, Mich.

The professional service representatives of Testagar & Co., Inc., will be happy to pass on the latest information on the use of Heparin Sodium (Hepathrom) as an office procedure in the treatment of acute and chronic atherosclerotic conditions; as a treatment for peripheral artery diseases. Information is also available on the use of Heparin (Hepathrom) as a prophylactic in coronary artery diseases.
The latest information, samples and literature will be available on Felsules (Fellows-Chloral Hydrate). The latest literature stresses the value of Chloral Hydrate in the geriatric patient.

S. J. Tutag & Company **Booth No. 75**
Detroit, Mich.

S. J. TUTAG & COMPANY will introduce the new tranquilizer—SONAZAR TABLETS. SONAZAR is a unique combination of proven relaxants and sedative like drugs plus TULYN for fast—safe—predictable tranquilizing action without undesirable side effects. You are cordially invited to stop and visit at Booth No. 75—get the full information regarding SONAZAR and receive a memento of the convention.

The Upjohn Company **Booth No. 16**
Kalamazoo, Mich.

"Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments."

U. S. Vitamin Corporation **Booth No. 46**
New York, N. Y.

On display—ARLIDIN, the safe vasodilator drug with three unique pharmacologic actions: (1) dilates predominantly small blood vessels of skeletal muscle, (2) increases cardiac output without significant increase in pulse rate, (3) promotes greater circulating blood volume. Thus, ARLIDIN (Nylidrin HCl. NNR) is indicated in treating intermittent claudication in arteriosclerosis obliterans, thromboangiitis obliterans, and diabetic vascular disease; also effective in Raynaud's Syndrome and ischemic ulcers.

Grand Rapids Hosts AMA Rural Health Meeting

For the first time in decades, the American Medical Association will hold its national rural health meeting.

The 15th Annual National Conference on Rural Health will be held at the Pantlind Hotel, Grand Rapids, February 25-27.

Michigan doctors are urged to participate in the excellent program which will cover such topics as careers on the medical team, immunization for farm families, problems of the aging, health techniques in 4-H work, food fadism and others. The event is sponsored by the AMA Council on Rural Health.

Members of MSMS taking part in the conference are Milton Darling, M.D., Detroit, and Frederick Swartz, M.D., Lansing. Doctor Darling will extend greetings from the Michigan State Medical Society. Doctor Swartz, chairman of the AMA Committee on Aging, will moderate a panel on geriatrics.

Marvin L. Niehuss, Ann Arbor, president of the Michigan Health Council, and vice president and dean of faculties at the University of Michigan, also will appear at opening ceremonies of the meeting. The Michigan Health Council has been working closely with the American Medical Association in the planning and in making other conference arrangements.

The annual banquet will be held Friday evening, February 26, with E. Vincent Askey, M.D., Los Angeles, President-Elect of the AMA, as the principle speaker. Appearing on the program with Doctor Askey will be Mrs. Frank Gastineau, Indianapolis, President of the Woman's Auxiliary to the American Medical Association, and Emil Pollard, Ann Arbor, Treasurer of the Student American Medical Association.

There will be no registration fee. On Friday, February 26, the program runs from 9 a.m. to 5 p.m. The Conference will adjourn at noon on Saturday, February 27.

Offer Translations of Russian Journals

Pergamon Institute, a non-profit foundation, was formed in 1957 for the purpose of making available to English-speaking scientists, doctors and engineers (from all countries that are members of the United Nations), the results of scientific, technological and medical research and development in the Soviet Union and other countries in the Soviet orbit. The Institute maintains offices at 1404 New York Avenue, N. W., Washington and also in London and Oxford.

The Institute now publishes a number of selected Russian journals in translation. They include *Atomnaya Energiya* (Atomic Energy), *Electric Technology USSR, Pavlov Journal of Higher Nervous Activity, Problems of Psychology, Problems of Cybernetics, USSR Patents and Inventions, Problems of Virology, Problems of Hematology and Blood Transfusion, Journal of Microbiology, Epidemiology and Immunobiology, Biophysics, Problems of Oncology, The Sechenov Physiological Journal of the USSR, Physics of Metals and Metallography, Abstracts of USSR Metallurgy, Radio Engineering, Radio Engineering and Electronics, Telecommunications and Applied Mathematics and Mechanics.*

Hospital Construction Declines

A decline in private hospital construction during 1959 despite increasing need for facilities was partly attributed to rising costs, according to the American Association of Fund-Raising Counsel.

New private hospital construction for the first nine months of 1959 was valued at $425 million, a 7 per cent decline over the 1958 comparable figures.

Meanwhile the average daily census in hospitals increased by 4.5 million, to a total of 26.5 million.

Approximately $150 million of the expenditure for new construction came in current philanthropy.

The capital needs of hospitals, estimated at $500 million a year for the next twenty years, must be in large part met through private contributions, the Association said. It estimates that 55 per cent or $275 million annually should be obtained from private sources.

Disparity between patient charges and hospital costs is growing. In 1957, patient care cost approximately $.95 while the same patient in 1958 cost the hospital approximately $1.52, an increase of 62 per cent. Funds normally earmarked for construction and improvement are frequently siphoned off to make up the difference, the Association said.

In spite of the 7,000 hospitals in the United States, at the start of the 1958-59 fiscal year, government sources have estimated total need of 864,236 new beds and replacement of 280,273 beds which are in use but below minimum standards.

Contends C.D. Measures Wise

The tenth County Medical Society Civil Defense Conference, sponsored by AMA, featured a talk by Congressman Melvin Price on the environmental and biological effects of nuclear warfare.

Congressman Price summarized the findings of recent hearings conducted by a Joint Congressional Atomic Energy Subcommittee, which assumed a hypothetical attack on this country. The conclusion was that the nation could recover from such an attack and that protection measures are feasible and could greatly reduce the casualties.

The conference, held in Chicago November 7-8, heard J. E. Seagraves, M.D., Chicago, present a paper which revealed how the medical nursing and nonprofessional personnel of St. Anne's hospital handled the many seriously injured patients, as a result of a disastrous fire in Our Lady of the Angels school in Chicago in 1958. Dr. Seagraves pointed out that the successful management of casualties was the result of a plan which was some seven years in the making.

Curtis Lohr, M.D., St. Louis, Missouri, reported on the tornado disaster that occurred in St. Louis in February, 1959. Dr. Lohr stated the city was well prepared in all aspects except in communications and the evacuation of casualties. He felt certain that the deficiencies would have been revealed by an operational test of the disaster plan. Delay in transmitting disaster information did not permit the medical field service and private ambulances to be called into action.

Other items of interest or importance discussed at the conference disclosed that:

Veterans Administration Hospitals in the local area are available as a resource in the event of a disaster.

The new Division of Health Mobilization within the Public Health Service, U. S. Department of Health, Education and Welfare, now has major responsibility for planning and guidance in the emergency health field.

A reiterance of the need for the continual filtered-down training from the Federal level to the nationwide resources personnel, to the lay public was made.

The lesson plan materials being used in Cleveland to train medical and defense aides were adopted from material supplied by Detroit.

Stanley W. Olson, M.D., Dean, Baylor University College of Medicine and Surgery, reported that 85 per cent of our medical schools have participated in the MEND program (Medical Education for National Disaster). It may be noted that Wayne State University will participate beginning January 1960.

Carl J. Sprunk, M.D., Melvindale, a member of the MSMS Committee on National Defense, was the chairman of the conference.

AMA Session Report

Speakers covered many topics and resolutions called for action on many subjects at the thirteenth annual session of the American Medical Association and its House of Delegates in Dallas, Texas. Total attendance reached 4,727, with 2,742 physicians in attendance.

Following is a series of short reports covering various aspects of the five-day meeting, December 1-4.

Johnson, Rayburn Speak

Two Democratic leaders in Congress told the opening session of the House of Delegates at Dallas that:

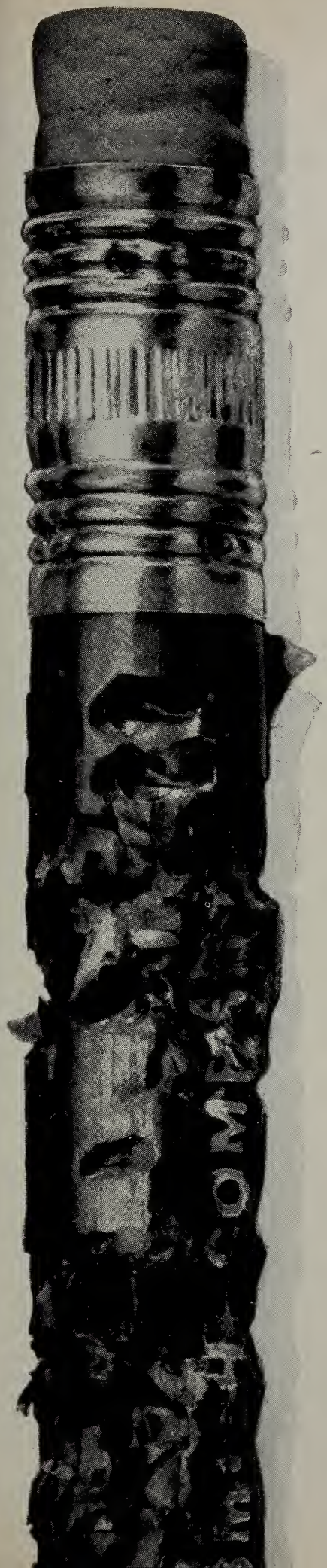
—Physicians should not fear politicians.

—Physicians should take a more active role in politics and government.

The speakers were Sen. Lyndon B. Johnson, Senate majority leader, and Rep. Sam Rayburn, speaker of the House of Representatives.

Johnson said America must have strength and solvency if it is to compete successfully against communism's goal of controlling the world.

(Continued on Page 304)



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You will find Dartal outstandingly beneficial in management of the anxiety-tension states so frequent in hypertensive or menopausal patients. And Dartal is particularly useful in the treatment of anxiety associated with cardiovascular or gastrointestinal disease, or the tension experienced by the obese patient on restricted diet. You can expect consistent results with Dartal in general office practice.

with low dosage: Only one 2, 5 or 10 mg. tablet t.i.d. *with relative safety:* Evidence indicates Dartal is not icterogenic.

Clinical reports on Dartal: 1. Edisen, C. B., and Samuels, A. S.: A.M.A. Arch. Neurol. & Psychiat. *80*:481 (Oct.) 1958. 2. Ferrand, P. T.: Minnesota Med. *41*:853 (Dec.) 1958. 3. Mathews, F. P.: Am. J. Psychiat. *114*:1034 (May) 1958.

SEARLE

AMA Session Report

(Continued from Page 302)

Johnson said physicians would suffer personally in such an economy since what they practice would become a pawn in the realms of public policy.

"I don't want to see that happen," he said. "I want to see America maintain an economy in which the people can afford health for their bodies, education for their minds, homes for their families, and can consult the doctor of their choice."

Rayburn told the delegates that the greatest force for better government comes from men and women of integrity who accept the responsibility of voting—and of running for political office.

Turning to medicine, Rayburn said he is "sorry" that so many young men find it difficult to gain admission to medical schools.

Rayburn said he believes that when people talk of socialized medicine, they are talking of "something no one can define."

"I have never seen a man or woman in Congress who will say they are for socialized medicine," he said.

Medical Services Conference

An interesting conference on medicare was conducted by The Council on Medical Service. The program offered speakers on "Medicare" and "Public Welfare Medical Care." The speakers described the problems and methods used in their areas to care for the blind, the handicapped and the dependent—in general the relief cases. In most cases it is simply relief care through established groups in the county, the city, isolated regions, including statewide administration. In many states or districts medical relief is supplied through Blue Cross-Blue Shield in a modified form somewhat similar to the veterans home town care for so many years in Michigan. The welfare administrator certifies to eligibility or gives references which authorize the medical care to be paid through the prepaid voluntary agencies. Such an arrangement was contemplated in a county area in Michigan about ten years ago as a trial run experiment, but was disallowed from Washington. The discussions brought out many features of a nationwide problem.

Health Insurance for Aged

Robert L. Novy, M.D., of Michigan, was moderator for a panel discussion of Health Insurance for those over sixty-five. Panel participants reported in rather complete detail the plans and actions in their districts, state or local that had been accomplished or contemplated in carrying out the actions and recommendations of the A.M.A. House of Delegates in December, 1958, and accentuated in June, 1959.

Also included was a Summary of Activities of State Associations, Component Societies and Local Plans, a 43-page booklet giving reports by states.

David Allman, M.D., Atlantic City, urged nationwide efforts to supply more jobs for the retired.

The best way to do it is pressure Congress to amend Social Security regulations and let the retired earn as much as they can—regardless of what they get out of Social Security, he said.

Conference on Athletes

Nearly 200 physicians, coaches and trainers devoted to protecting the physical well being of American athletes participated in the first National Conference on Medical Aspects of Sports held the day before the AMA meeting opened.

Among the speakers was Hans Kraus, M.D., New York University. He stressed the value of physical conditioning to prevent injury to persons occasionally participating in sports. He said many athletic injuries occur when muscles are too weak or too inflexible to respond adequately to stress.

New Medical Films

The premiere showing was given for "Rehabilitation Adds Life to Years," a new film prepared by AMA Committee on Rehabilitation. Another new film, shown was "I Am a Doctor," a medical careers recruitment film jointly produced by AMA and the Association of American Medical Colleges.

Freedom of Choice

In considering four resolutions which in various ways would have changed or replaced the statements on freedom of choice of physician which the House adopted in June, 1959, when acting upon the recommendations in the report of the Commission on Medical Care Plans, the House reaffirmed its statements approved in Atlantic City. However, in order to clarify and strengthen its position on the issue of freedom of choice of physician, the House also adopted this additional statement which was submitted as a substitute amendment on the floor of the House:

"Lest there be any misinterpretation, we state unequivocally that the American Medical Association firmly subscribes to freedom of choice of physician and free competition among physicians as being prerequisites to optimal medical care. The benefits of any system which provides medical care must be judged on the degree to which it allows of, or abridges, such freedom of choice and such competition."

Physician-Hospital Relations

The House received twelve resolutions on the subject of relationships between physicians and hospitals.

(Continued on Page 306)

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help restore the normal blood picture—iron as ferric pyrophosphate to restore or maintain normal hemoglobin.

boost appetite and energy—vitamins . . . B_1, B_6 and B_{12}.

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Vitamin B_{12} Crystalline	25 mcgm.
Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Sorbitol	3.5 Gm.
Alcohol	0.75%

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Grand Rapids, Michigan

AMA Session Report

(Continued from Page 304)

To resolve any doubt about its position, the House did not act upon any of the resolutions but instead reaffirmed the 1951 "Guides for Conduct of Physicians in Relationships with Institutions." It also declared that "all subsequent or inconsistent actions are considered superceded."

Scholarship Program

To help meet the need for an increasing number of physicians in the future, the House approved the creation of a special study committee.. The committee received seven assignments, including the development of a total scholarship program and development of methods to interest well-qualified students to enter the study of medicine.

Relative Value Studies

Reaffirming a previous policy statement, the House approved in principle the conducting of relative value studies by each state medical society, rather than a nationwide study or a series of regional studies by the AMA. The House also reiterated its authorization for the Committee on Medical Practices to inform each state medical association, through regional or other meetings, of the purpose, scope and objectives of such studies, the steps to be followed in conducting studies, the problems which may be encountered and the manner in which the results can be applied.

The House recognized, however, that some state medical societies are either not interested in relative value studies or are actively opposed to them. It pointed out that some state medical associations fear that the regional conferences of the Committee on Medical Practices will put pressure on them to carry out such studies and that this will result in the adoption of "fixed fees." Since the regional conferences are educational in nature, the House said, it remains for each state or county medical association to accept or reject the idea of a study in its area.

Miscellaneous Actions

The House also:

Urged that *medical schools* include in their curricula a course on the social, political and economic aspects of medicine;

Suggested that the AMA make available to school libraries *information and literature* showing the advantages of private medical care and the American free enterprise system;

Urged the American people to get proper *tetanus toxoid*, original and booster, and other immunizations as indicated from their physicians, and called on AMA

Say you saw it in the Journal of the Michigan State Medical Society

members to cooperate in an educational program on tetanus immunization;

Called upon each individual physician to wage "a vigorous, dynamic and uncompromising fight" against the *Forand type of legislation.*

The House also:

Learned that the AMA Board of Trustees has appointed a liaison committee to meet with a similar committee of the *American Osteopathic Association* to consider matters of common concern;

Emphasized that local medical societies should insure that no member violates ethical traditions as they relate to ownership of *pharmacies* or stock in pharmaceutical companies;

Approved the plan of the Committee on Medical Rating of Physical Impairment to publish its new guide on the *cardiovascular system* in the *A.M.A. Journal;*

Called for investigation of the need, desirability and feasibility of establishing a home for *aged and retired physicians;*

Urged active promotion and careful study of the newly developed "Guides for Medical Care in *Nursing Homes* and Related Facilities";

Suggested that fees for consultative examinations under programs of the Bureau of Old Age and Survivors Insurance should be adjudicated directly between the state medical society and the state agency involved;

Registered a strong protest to the *Veterans Administration,* urging stricter screening of non-service-connected disability patients admitted to government hospitals;

Reiterated the Association's support of the *Blue Shield* concept and directed the Council on Medical Service to submit at the June, 1960, meeting its recommendations concerning a policy statement on AMA relationship with Blue Shield plans.

Heads National Blue Cross

James E. Stuart is the new president of the National Blue Cross Association. Formerly executive vice president, Mr. Stuart succeeded Basil C. MacLean, M.D., on January 1, 1960. Dr. MacLean will continue to serve the association as consultant.

A former consultant to the United States Health, Education and Welfare Department and administrator of public welfare programs for Hamilton County, Ohio, Mr. Stuart has been active in the Blue Cross movement since January 1, 1942 when he assumed the post of Executive Director of the Cincinnati, Ohio, Plan. Prior to his appointment as executive vice-president of the Blue Cross Association on October 1, 1957, Mr. Stuart served as chairman of the Board, and chairman of the Blue Cross Commission.

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Schering

When you want to prescribe a diet to lower serum cholesterol, is a low-fat low-cholesterol diet the best way?

No, not according to today's thinking. A more efficient way is to control the type and amount of fat in the diet.

This means to control the total calories and to replace the saturated fats wherever possible with poly-unsaturated vegetable oil.

There is a considerable agreement among heart research workers that a low-fat diet does not by itself consistently reduce beta lipoproteins and blood cholesterol or sustain a low level. Many low-fat diets merely eliminate the visible fats. The *invisible* fat, inherent in meat and dairy products, is basically *saturated fat*, so that a low-fat diet quite frequently is actually relatively high in saturated fat. Consequently, the patient does not get the proper percentage of the *poly-unsaturated fatty acids* that help to lower blood serum cholesterol and to maintain it at proper levels.

We know today that a low-cholesterol intake (dietary cholesterol) has little or no bearing on serum cholesterol. Too, that it would be most undesirable to eliminate all cholesterol-containing foods from the diet, because they carry with them so many important accessory nutrients.

When a vegetable (salad) oil is medically recommended as part of a cholesterol depressant regimen, Wesson is unsurpassed by any readily available brand.

Uniformity you can depend on. *Wesson has a poly-unsaturated content better than 50% . Only the lightest cottonseed oils of highest iodine number are selected for Wesson and no significant variations in standards are permitted in the 22 exacting specifications required before bottling.*

Concerning Emergency Call Duty

Dear Doctor:

I have given consideration to the questions raised by your inquiry with respect to the liability of physicians in your community who volunteer for emergency call service at your local hospital.

As I understand the general background situation, the entire medical staff at the hospital (excepting those who may be excused by reason of age) is obligated for emergency duty at the hospital on a rotating basis for one-week periods. Whatever physician is on call is summoned for emergencies coming into the hospital unless the patient requests a specific physician. Each emergency case is seen by the physician on call who then decides whether he can handle the case. If, in his opinion, he cannot, he contacts any other staff physician who he feels can handle the situation and refers the case to him. Among the physicians who participate in the rotation of emergency call are those in such specialties as internal medicine, ophthalmology, pediatrics and radiology, many of whom, in their customary work, are not called upon to handle cases involving lacerations, fractures or acute bodily injuries in general. Referral to appropriate specialists can usually be accomplished where deemed necessary but sometimes is not feasible and the emergency call physician must treat the patient as best he can.

With this general background, I offer my observations as follows. The general applicable rule of law can be stated to be that by assuming to render medical care a physician represents and warrants that he has the learning and skill of the *average* member of the medical profession in the community in which he resides. I realize that the term "average skill" offers a somewhat indefinite standard and one which, at best, varies with the community involved. To a very considerable extent the physician, himself, must be the judge of his own qualifications. If he honestly believes that he can adequately care for the average case which is likely to be presented to him and that he can reasonably expect that others with greater qualifications will be available if and when needed, I believe that he can safely volunteer to participate in such services. If, however, he feels that it is *probable* that he will be called upon to render care for which he is not qualified, it is my opinion that he cannot safely volunteer for such services unless he does so *only* because no one better qualified is available.

By way of illustration, let me put it this way: If a physician who specializes in radiology or ophthalmology, for instance, were to come across a seriously injured person on the highway who required emergency attention, it would rather obviously be not only his right but his duty to do the best that he could under the circumstances and certainly, he would incur no legal liability in so doing. In such an instance, the emergency would justify his using such limited skills as he might possess. If, however, he assumed to take charge of such a case voluntarily and when a fully qualified man was available, he would, in my judgment, render himself legally vulnerable.

In essence, then, two basic factors are involved in the answer to your question. First, does the doctor in question honestly feel that, in relation to the services which he will probably be called upon to render, that he posseses the average skill and training of those practicing in his community who customarily handle such cases? If he does, then he incurs no liability if he exercises that skill properly and to the best of his ability. If, on the other hand, he does not possess or does not regard himself as possessing that average skill, he is justified in acting only in the emergency which results from the unavailability of more skilled and adequately trained physicians. In short, he would be justified in *volunteering* to serve *only* if and when no more adequately trained or skilled physicians were available.

I am sure you will appreciate that it is impossible to give completely categorical answers to your questions and I trust that the foregoing observations will be of some guiding benefit. If further specific questions occur to you, the answers to which might help to further clarify the matter, I shall be happy to be of any further assistance possible.

Sincerely yours,
LESTER P. DODD
Legal Counsel, MSMS

Concerning Administration of Drugs by Practical Nurses

Dear Doctor:

I regret the delay in replying to your inquiry with respect to the problems involved in the utilization of practical nurses in the administration of drugs and medications. The problem is a difficult one because of some degree of conflict between the legal and practical factors involved.

I have made numerous inquiries as to what others are doing or contemplating in this area and find a great divergence of thought and action. I find that at least one hospital in your community is utilizing practical nurses, under certain limitations, in the administration of medications and that several others are contemplating doing so. In the case of the hospital which presently has such a plan in operation, a training program is being carried out under which *selected* practical nurses are trained under physicians and registered nurses. This hospital reports that its program is working out satisfactorily.

It must, however, in my opinion, be emphasized that even though there is an area in which the services of the practical nurse can be utilized legally in administering drugs, this area is definitely limited by

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low

law regardless of the amount or quality of training. Under the Michigan Statutes regulating and licensing nurses, a registered nurse is defined as one "who has been authorized by the state to perform any professional service requiring the application of principles of nursing based on biological, physical and social sciences, such as responsible supervision of a patient requiring skill in observation of symptoms and reactions and the accurate recording of same, and execution of treatments and medications as prescribed by a licensed physician, and the application of such nursing procedures as involve understanding of cause and effect in order to safeguard life and health."

Under the same Statute a licensed practical nurse is defined as "one who has been authorized by the state to perform such duties as are required in the physical care of a patient and in carrying out the medical orders as prescribed by a licensed physician, requiring an understanding of nursing but not requiring the professional service as defined above. The term 'licensed practical nurse' is further defined as one who is authorized by the state to care for subacute, convalescent and chronic patients requiring service under public health nursing agencies, or in institutions, or in homes, working under the direction of a licensed physician or the supervision of a registered professional nurse, or one who is authorized by the state to assist a registered professional nurse as a member of a team caring for acutely ill patients, and who is prepared to give household assistance when it contributes directly to the welfare of the patient.

Under an opinion of the Attorney General of Michigan, it has been held that the giving of skin tests, x-ray treatments, or hypodermic injections in the diagnosis or treatment of ailments or diseases by a person who is not a registered nurse or licensed medical practitioner is unlawful (O.A.G. 1937-8, p. 357).

While, admittedly, the foregoing definitions and opinions leave much to be desired by way of clarifying the distinctions between the functions of the two classes of nurses, it seems to me that the situation boils down to this:

1. The practical nurse cannot be permitted to do the specific acts (such as administering anesthetics, hypodermic injections, skin tests, x-ray treatments, etc.) which have been held to be solely within the province of the registered nurse or registered physician.
2. The practical nurse may be permitted to admin-

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ister medications under the supervision of a registered nurse or registered physician, but only under direct supervision or under direct orders which do not allow her to use her own judgment.

3. The practical nurse cannot be placed in direct charge, but must always be under direction and supervision.

It is only, in my opinion, within these limitations and after adequate training that the services of licensed practical nurses can be safely utilized in the area under discussion. The failure to recognize these lines of demarcation may result in the imposition of legal liability in any of three ways. First, the violating nurse may be subject to revocation of license. Second, the violating nurse may be subject to criminal prosecution, and, Third, civil liability (suits for damages) for her acts may be imposed not only upon her but upon her employers and supervisors.

Very truly yours,
LESTER P. DODD
Legal Counsel, MSMS

AMA Law Session Soon

On May 20 and 21, 1960, the Law Division of the American Medical Association will hold its third biennial legal conference for medical society representatives. This meeting is designed to serve as a postgraduate course for attorneys representing medical societies and to better acquaint executives with the legal problems that exist so they may make the fullest use of their legal counsel.

New California Law

Recently a law went into effect in California which grants professional immunity to physicians who give first aid at the scene of an accident. The new law provides:

> "No person licensed under this chapter (business and professions Code) who in good faith renders emergency care at the scene of the emergency, shall be liable for any civil damages as a result of any acts or omissions by such a person in rendering the emergency care."

The new law does not define the word emergency nor does it state the locale where an "emergency," can occur. The interpretation of these words will have to await court decisions.—*The Citation*, Vol. 2, No. 6, Nov. 20, 1959.

The average patient in a general hospital today spends 8.6 days there—a decline of about one-third from the 12.5 average of twenty years ago.

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Pathology Comment

The Coombs Test

The Coombs test (antiglobulin test) is a very sensitive method of demonstrating any antibody capable of being adsorbed on erythrocytes. The history of its development is similar to that of many other scientific discoveries; the test was first described by Freidberg and Moreschi in 1908, but it went unappreciated until rediscovered by Coombs thirty-seven years later.

The Coombs test is of particular help in the demonstration of the antibody of acquired hemolytic anemia. It has also proved so useful in blood banking that in many laboratories it is a routine part of cross-matching procedures for the detection of absorbed antibodies.

The Coombs or anti-gamma globulin serum is prepared by injecting human gamma globulin into rabbits to produce an anti-human gamma globulin. The test is performed by mixing red blood cells with Coombs serum. There is clumping of these red cells only if an antibody is present "coating" these red cells. The Coombs test may be either "direct" or "indirect."

Direct.—Coombs reagent and patient's *cells.* A positive reaction indicates sensitization of the cells.

Indirect.—An unknown serum is mixed with the known red cells; these cells are then tested with Coombs reagent to see if they have become coated by antibodies.

Interpretation.—A positive Coombs test in a patient with hemolytic anemia is usually pathognomonic of the *acquired* type. In the congenital hemolytic anemia the erythrocytes or their hemoglobins are atypical and the Coombs test is negative because there are no circulating antibodies in the serum. Congenital hemolytic icterus, or hereditary spherocytosis, a disease usually cured by splenectomy, should be verified by the presence of a negative Coombs test. The Coombs test is also negative in the many hemolytic anemias associated with congenital abnormalities of hemoglobin.

The blood in acquired hemolytic anemias often contains these incomplete antibodies demonstrable by the Coombs test. Idiopathic acquired hemolytic anemia, the acquired hemolytic anemias secondary to leukemia, lymphosarcoma, L.E., thrombotic thrombocytopenic purpura, and hemolytic anemia following virus pneumonia and paroxysmal cold hemoglobinuria also have positive Coombs tests along with other diagnostic serologic tests. Hemolytic disease of the newborn will give a positive Coombs test with CDE (Rh) incompatibilities and often in ABO incompatibilities.

Negative tests are found in the hemolytic anemias of hypersplenism, drug sensitization, septicemia, severe burns, and uremia. Here it is the red cell structure which seems to be damaged instead of alteration of plasma proteins. Paroxysmal nocturnal hemoglobinuria is an acquired hemolytic anemia with a negative Coombs test, but in this condition the erythrocytes are abnormal.

The value of the Coombs test in diagnosis of hemolytic anemias and prevention of transfusion reactions is thus quite apparent.

(This column is sponsored by the Michigan Pathological Society)

Laboratory Study of Bleeding Disorders

In the study of a bleeding disorder, three factors must be evaluated. The first is the integrity of the vascular wall; this can be determined by means of the *tourniquet test* and the *bleeding time.* The blood platelets, or thrombocytes, are the second factor; they can be evaluated by means of a *platelet count* and by careful study of *platelet morphology.* The third factor involves the plasma components. There are many of these and they are considerably more difficult to evaluate than the vascular wall and the platelets.

The simplest test is a determination of the *clotting time* of the blood by the Lee-White method. In glass tubes clotting normally occurs in five to ten minutes. Prolonged clotting time signifies either a severe disturbance of the clotting mechanism or the presence of a circulating anticoagulant. If the clotting time is prolonged a *prothrombin time* should be performed. A normal prothrombin time excludes most deficiencies of prothrombin, labile, or stable factors and fibrinogen. Relatively simple variations of the one-stage procedure can differentiate isolated deficiencies of certain factors.

If the *prothrombin time* is normal the defect may be assumed to be in the formation or generation of thromboplastin or due to a circulating anticoagulant. The *prothrombin consumption test* can be utilized to substantiate this assumption. This is basically a prothrombin time determined for serum instead of plasma. If adequate thromboplastin was formed during the clotting the serum will contain very little prothrombin and the time will be greatly prolonged. However, if the serum prothrombin time is short, e.g., fifteen to thirty seconds, a deficiency in thromboplastin is indicated.

The *thromboplastin generation test* is more accurate than the prothrombin consumption test in detecting minor abnormalities of thromboplastin formation. The test formerly was performed only in medical centers, but standardized reagents in dried form have become available so it can now be part of hospital laboratory routine. In this test the two principal plasma factors, antihemophilic globulin (AHG) and plasma thromboplastin component (PTC) can be assayed. Known factors (AHG or PTC, and platelet factor) are mixed with patient's plasma. At short intervals aliquots of this mixture are removed and assayed for thromboplastin activity. If the patient's plasma plus the AHG reagent fail to form thromboplastin in adequate amounts, and the patient's plasma plus PTC reagent does form thromboplastin, a deficiency in PTC or Christmas disease is indicated. If the reverse is true, i.e., thromboplastin is formed with AHG reagent and not PTC reagent, a deficiency of AHG is present and the patient has classical hemophilia. For specific therapy it is essential to know which of these two factors is deficient. AHG is found only in fresh blood, whereas PTC is present in adequate amounts in bank blood.

Circulating anticoagulants can be detected by mixing the patient's blood with normal blood. If an anticoagulant is causing the failure of the blood to clot, mixed normal and

(Continued on Page 326)

Elect Health Council Leaders

Six members of MSMS, along with seven prominent laymen who have taken an active interest in Michigan health affairs, were elected to offices in the Michigan Health Council at the organization's annual meeting.

Sidney E. Chapin, M.D., Dearborn, secretary of the Michigan Heart Association, was named President-Elect. Doctor Chapin will take office next December.

The Michigan Health Council President for 1960 is Marvin L. Niehuss, Ann Arbor, Vice-President and Dean of Faculties of the University of Michigan. Otto K. Engelke, M.D., Ann Arbor, Director of the Washtenaw County Health Department, is the retiring president.

J. K. Altland, M.D., Lansing, Associate Commissioner, Michigan Department of Health and a past-president of the Health Council, was elected Medical Director. Harry B. Zemmer, M.D., Lapeer, continues as President Emeritus.

M.D.s named to the Board of Trustees for three-year terms were S. D. Steiner, M.D., Detroit, Medical Director, General Motors Corporation; E. A. Irvin, M.D., Dearborn, Medical Director, Ford Motor Company, and Doctor Chapin. The balance of the Board Members elected were Russell Fairles, Lansing, Vice-President of Michigan National Bank; Paul A. Miller, Ph.D., East Lansing, Provost, Michigan State University; Herbert Estes, Ann Arbor, a member of the Executive Committee of Alma College Board of Trustees; and Andrew Pattullo, Battle Creek, Director, Division of Hospitals, W. K. Kellogg Foundation.

Hugh W. Brenneman, Lansing, Public Relations Counsel of MSMS, was elected to succeed himself as secretary. L. Gordon Goodrich, Detroit, Vice President of Blue Shield, was returned to the post of treasurer.

The annual meeting was held in Detroit on December 9.

Honor Science Editors

Three Detroit science writers were honored by the Michigan Cancer Foundation at its annual meeting on December 15. The awards were for significant contribution in the saving of lives from cancer. The specially inscribed plaques went to Mrs. Jean Pearson, *Detroit Free Press*; Merle Oliver, *Detroit News*; and Jack Pickering, *Detroit Times*.

In presenting the awards, C. F. Arnold, retiring board chairman, said: "Year after year these journalists have dedicated themselves to fighting disease with the power of the pen rather than with microscope and test tube and have followed our endeavors faithfully and reported them honestly."

Name New Executive

Duncan M. Laidlaw has been appointed executive director of the Michigan Chapter of the Arthritis & Rheumatism Foundation with headquarters at 7338 Woodward Avenue, Detroit.

Mr. Laidlaw, formerly with naval education, public information and personnel service, succeeds J. Howard Stephenson, who will continue with the chapter as a director.

MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

Public Health Aspects of Tuberculosis Control

In considering public health aspects of tuberculosis, it is suitable to consider the victims of the disease in three categories.

1. Those who have had tuberculosis and have been successfully treated.
2. Those who have tuberculosis and do not know it.
3. Those who have tuberculosis but refuse to accept treatment.

In the first group, we have those patients who have been or are being given proper treatment, resulting in a safe discharge from the sanatorium. Prior to the advent of modern chemotherapy, we could expect a relapse rate of about 25 to 30 per cent in these patients. At the present time, this relapse rate is under 5 per cent. While it is most important to follow up these patients, they do not represent the public health hazard that they did ten or fifteen years ago.

In the second group, we have the unknown cases of tuberculosis, each one of which represents a possible source of infection; each one of which is the result of someone else's infection. Our experience shows that about 5,500 new cases are reported annually, of which about 55 per cent are active or probably active. On this basis, we estimate that there are about 6,000 persons with active tuberculosis in Michigan who do not know it.

The third group represents the most serious problem today in tuberculosis control. Included in this group are anti-social people, alcoholics, vagrants, criminals, etc. In the eighteen month period from January 1, 1958 to June 30, 1959, 1,410 patients left Michigan tuberculosis sanatoriums against medical advice.

A review of these cases produces a history of gradually progressive pulmonary tuberculosis, with very brief treatment during temporary stays in sanatoriums. This intermittent therapy has the secondary result of induced drug-resistance. After their unauthorized departure from the hospital, they often revert to positive and raise drug-resistant organisms in their sputum. These people infect others with their disease, necessitating expensive hospital care at public expense. They also render themselves immune to the effects of proper treatment, so that they eventually become advanced cases of pulmonary tuberculosis, ill to the point where they can no longer exist outside the hospital, but still able to live for long periods in the protection of the sanatorium and its three meals a day.

Not only have we lost a good part of our investment in treating these patients, but our tax money is further obligated to pay for the care of new cases stemming from the attitudes and lack of responsibility of this group. The re-seeding of tuberculosis in our communities is undoubtedly coming as much from these recalcitrant patients with active disease as it is from the new known cases occurring in the population.

In spite of this, we are making progress in controlling tuberculosis. Thirty years ago it is estimated that the tuberculin reactor rate among school children was around 20 to 25 per cent. Today the reactor rate is under 5 per cent and in some areas as low as 1 per cent. We can conclude from this that the reservoir of infection is dwindling so that a child today has a considerably smaller chance of being infected with tuberculosis.

While we have come a long way, the demon is still loose in our midst, and there is still much to be done. Now, more than ever, alertness to the possibility of tuberculosis in a patient is necessary. Whether the administration and physicians in a hospital know it or not, patients with active tuberculosis are being admitted every day. We, in tuberculosis control, have known for a long time that the number of tuberculosis cases developing in general hospital employes is much higher than in tuberculosis sanatorium employes. The reason is obvious: in the sanatoriums they know that the patients with whom they deal have tuberculosis and they protect themselves; in the general hospitals, they do not.

We are going to be protected only by a high index of suspicion of tuberculosis. By concerted effort on the part of all of us, we can institute the widespread use of the admission chest x-ray. If we stand firm on this, it will come eventually through the insistence of the insurance companies carrying hospital employe's compensation insurance. The precedent has been set and tuberculosis has been identified as a hazard in the occupation of persons working in the care of patients.

(Continued on Page 323)

EDITOR'S NOTE: *Each month, the State Health Commissioner is invited to express his views on health matters and Michigan Department of Health activities.*

(Continued from Page 320)

Perhaps the greatest threat today is the willingness on the part of the general public to believe that tuberculosis is no longer a problem. Nothing could be farther from the truth. We are confronted with an old axiom of communicable disease control: No communicable disease has ever been completely controlled without an effective immunizing agent.

So far we do not have such an agent, and there is only a theoretical promise that one will be developed. We may have scourged the demon but we still have not put him in headlong retreat. He can rise up immediately at the first sign of relaxation on our part.

Michigan Cancer Foundation Elects

Howard P. Doub, M.D., Detroit, is the new president of the Michigan Cancer Foundation. Doctor Doub is the former president of the dissolved Southeastern Michigan Division of the American Cancer Society. The election was one of the highlights of the annual dinner meeting held December 15, 1959, at the Wayne County Medical Society headquarters. John R. Heller, M.D., director of the National Cancer Institute as the evening speaker, reported that tests are continuing with 100 different drugs and twenty chemical compounds which have been found at least temporarily effective in controlling cancer.

R. L. Mainwaring, M.D., Dearborn, was elected a vice-president and Lyndle R. Martin, M.D., Detroit, secretary.

Re-elected to the board of directors were Dr. Mainwaring, John L. Barrett, M.D., Royal Oak; John J. Marra, M.D., Pontiac; O. A. Brines, M.D., and William Bromme, M.D., Detroit.

Elected as new members of the board were Milton A. Darling, M.D., Detroit, president of the Michigan State Medical Society; Walter Stryker, M.D., Wyandotte; James D. Fryfogle, M.D., James C. Cook, M.D., Detroit, and Donald Sweeney, Jr., M.D., Detroit.

Auxiliary Honors Speech Winners

Six winners in the eighteenth annual high school Tuberculosis Speaking Project were presented awards by Mrs. Harold H. Gay, president of the Woman's Auxiliary to the Michigan State Medical Society. The winning scripts were chosen from 104 entries submitted from fifty-two high schools. Nearly 2,000 students participated in the overall program.

The speaking program is co-sponsored by the Michigan Tuberculosis Association and the Auxiliary to MSMS.

Winners were Judi Landwehr, Mt. Pleasant; Kath-

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leen Sullivan, Republic; Rose Boudreau, Flint; Barbara Pearson, Marquette; Larry Steck, Calumet, and Carol Wolin, Flint.

MSMAS Educational Seminar Set

The third annual Educational Seminar of the Michigan State Medical Assistants Society will be held at Detroit, March 9, in conjunction with the Michigan Clinical Institute. The morning-afternoon program will be held at the Pick-Fort Shelby Hotel.

Registration will begin at 9 a.m., with the first address at 10:15. Hugh W. Brenneman, MSMS public relations counsel, has been selected to give the L. Fernald Foster Memorial Lecture about "Professional Philosophies and How They Work for You." Then the Wyeth Laboratories film, "First Contact: The Medical Assistant," will be shown. Luncheon will be served at 12:15 p.m.

The afternoon speakers are Miss Arlene M. Putt, R.N., Ann Arbor, University of Michigan School of Nursing, and John R. G. Gosling, M.D., Ann Arbor, University of Michigan Medical School and Health Service.

Reservations may be made with Mrs. Esther Regnaert, 7815 E. Jefferson, Detroit 14.

MHA Board to Meet

The Michigan Heart Association Board of Trustees will meet at 3:30 p.m., March 11, 1960, at the Sheraton-Cadillac Hotel, in conjunction with the annual MCI.

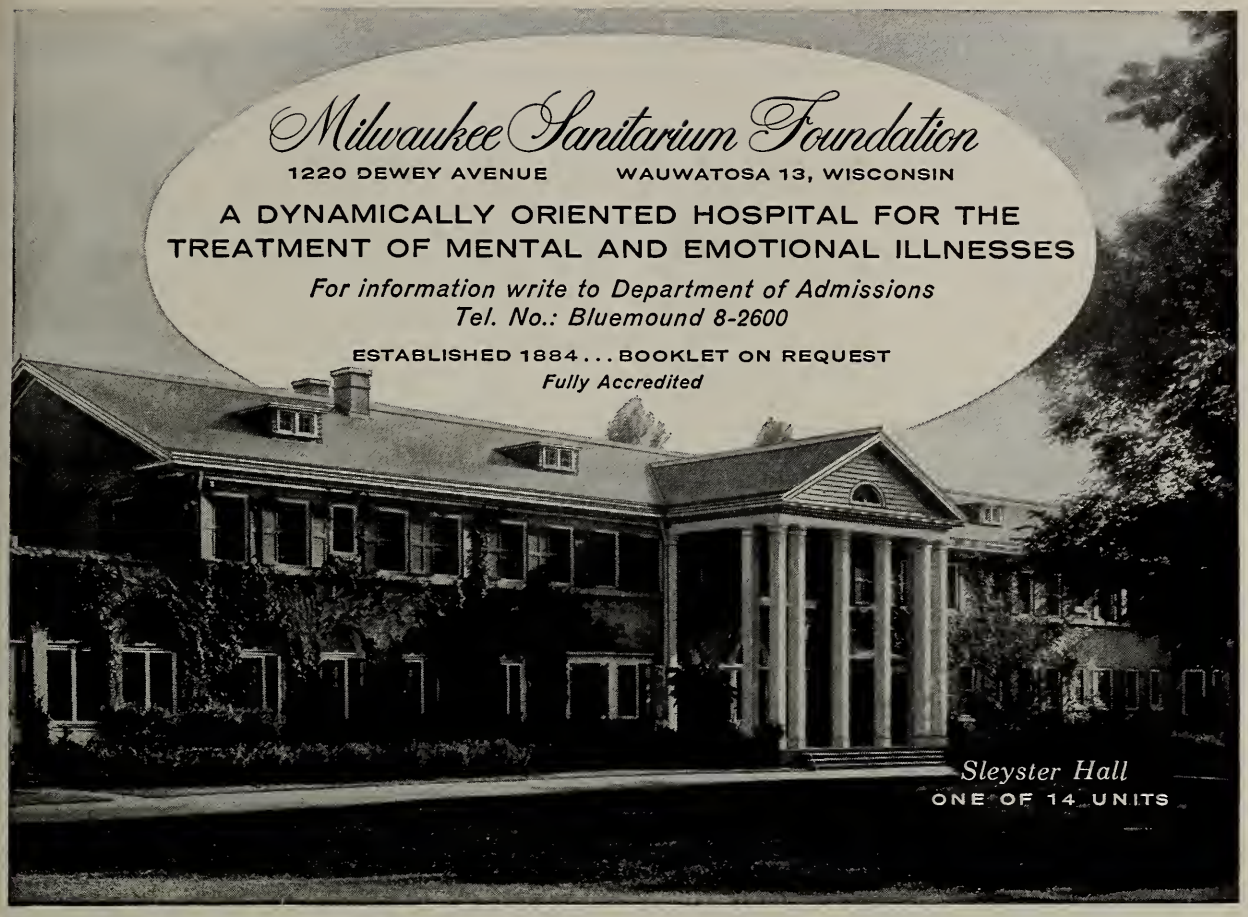
Sponsor C.D. Workshop

Interested Michigan doctors are invited to participate in the Physician and Hospital Workshop for Disaster Medical Care in Battle Creek, March 30. MSMS is co-sponsoring the important event with the Michigan Hospital Association and the Michigan Office of Civil Defense. The workshop will be held from 9:30 a.m. to 4 p.m. at the Office of Civilian Defense Mobilization at Battle Creek.

Health Conference Stresses Medical Recruitment

Careers in medicine and related fields were urged by members of the Woman's Auxiliary to the MSMS at the regional Rural Health Conference sponsored in Detroit by the Michigan Health Council in November.

Pictured above talking to students is Auxiliary Recruitment Committee chairman Mrs. Don A. Young of Bloomfield Hills *(second from right)*. Mrs. Walter Obenauf, Pontiac *(right)* and Mrs. Paul F. Dumke *(third from right)* also were on hand at the MacGregor Memorial Conference Center to talk to the many young people interested in medical careers.



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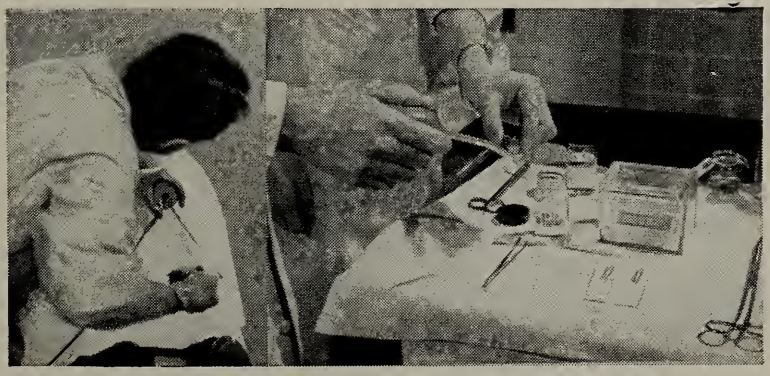

Cancers of the breast, cervix, and rectum . . . three common and too frequently fatal sites of cancer . . . can often be controlled through early detection and proper treatment. The methods and means are available *now*. Yet many more cures in these sites could be effected than are now being achieved.

The American Cancer Society, in its broad public education program, emphasizes the importance of an annual health examination for all adults. It also brings to physicians information on the value of regular examination of the breasts, the routine "Pap" smear, and the proctoscopic examination, to save lives from cancer.

An alerted public and medical profession can win a major victory over cancer . . . *now*.

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Obstetrical Brevits

Heart Disease and Pregnancy

Study of maternal deaths from heart disease in Michigan conducted by the Maternal Health Committee of the Michigan State Medical Society and the Michigan Department of Health prompt the publication of the following statements.

1. Women with heart disease severe enough to produce symptoms while at rest or with slight exertion tolerate poorly the stress of pregnancy and the immediate postpartum period. Logically, they should be advised to avoid pregnancy and be appropriately instructed and provided with the means of contraception or sterilization according to their religious faith and the laws of the State.

2. To avoid disaster, the early examination of a pregnant woman must include careful appraisal of history, physical signs and symptoms suggesting previous or current heart disease.

3. Having discovered heart disease, someone must accept the responsibility of following its course not only through the pregnancy but through the postpartum period.

4. To treat heart disease in pregnancy, do this:

(a) Reduce the dangers of intercurrent infection by reducing exposure to infection, by using available vaccines against influenza and poliomyelitis and by treating energetically with antibiotics such infections as do occur. Rheumatic hearts, and congenitally deformed hearts may be protected from subacute bacterial endocarditis resulting from peptic foci in the female genital tract, mouth and nasopharynx by prophylactic antibiotics during labor and the puerperium.
(b) Treat co-existing conditions which place extra load upon heart, i.e., hypertension, anemia, obesity, hyperthyroidism.
(c) Minimize fatigue and stress.
(d) If signs and symptoms of heart failure develop, promptly employ bed rest, digitalization, sodium restriction and diuretics. If more severe, add oxygen, IV aminophyllin, morphine and rotation of tourniquets about extremities.
(e) If auricular fibrillation occurs, Quinidine may restore normal rhythm.
(f) If heart failure is due to mitral stenosis, commissurotomy should be considered in first trimester.
(g) Avoid overloading circulation with IV fluids.

5. Heart failure in the first trimester calls for consultation and consideration of physical, psychological, social, legal and religious factors before recommending abortion.

6. The critical periods in the management of heart disease in pregnancy are during the seventh and eighth months and in the first and second days after delivery. Most deaths due to cardiac failure occur in these two periods—the majority in the seventh and eighth months.

7. The presence of heart failure is no indication for antepartum Cesarean section, hysterectomy or premature induction of labor. These procedures lead to greater mortality, morbidity and fetal wastage than spontaneous delivery and should be avoided unless there is definite obstetrical indication or danger of rupture of aneurysm.

8. To avoid deaths from acute cardiac arrest, do this:

(a) Careful examination of cardiac status before onset of labor,
(b) Maintain adequate oxygen supply during anesthesia,
(c) Learn technique of cardiac resuscitation.

9. The cardiac patient, once safely delivered, still has heart disease and needs to be followed after her discharge from the hospital.

10. I would suggest that with advancement of cardiac surgery no woman should be considered a cardiac cripple justifying sterilization until all factors are well evaluated. Cardiac surgery is a new factor for evaluation and we must realize its tremendous impetus.

John Fopeano, M.D.
E. Freeman Hersey, M.D.

(This column is sponsored by the Michigan Society of Obstetrics and Gynecology)

American Board of Obstetrics and Gynecology

Applications for certification in the American Board of Obstetrics and Gynecology, new and reopened, Part I, and requests for re-examination in Part II are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline for receipt of applications is August 1, 1960. No applications can be accepted after that date.

Candidates are requested to write to the office of the Secretary for a current Bulletin, if they have not done so, in order that they may be well informed as to the present requirements. Application fee ($35.00), photographs, and lists of hospital admissions must accompany all applications.

After July 1, 1962, this Board will require a minimum of three years of approved progressive Residency Training to fulfill the requirements for admission to examination. After the above date, training by Preceptorship will no longer be acceptable. Therefore, the initiation of Preceptorships will not be approved after July 1, 1960.

Applications should be addressed to the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

PATHOLOGY COMMENT

(Continued from Page 318)

patient's blood will also fail to clot or will clot very slowly. If the defect is due to a clotting factor deficiency, the mixture will clot in a normal period of time.

Laboratory study of a coagulation disorder often is a costly and time-consuming process and should always be preceded by a routine complete blood count and usually by consultation between the patient's physician and the pathologist.

Aim News Items at M.D. Target

GRANTS AID WAYNE STATE—Gifts and grants totaling nearly $352,000 were accepted recently by Wayne State University Board of Governors.

The Tobacco Industry Research Committee granted $10,125.75, for research in cellular physiology of heart muscle and measurement of coronary blood flow, to be conducted by Richard J. Bing, M.D.

Grants were received from the Population Council, Inc., of the Rockefeller Institute for $6,123 and from Harper Hospital, $5,745.

Student aids amounting to $6,744.04 from the U. S. Public Health Service were received, plus $5,184 to continue medical student part-time research. The College of Medicine Alumni Association, through the Wayne State Fund, gave $4,650 for loans to College of Medicine students.

International Business Machines Corporation donated a magnetic tape unit estimated at $18,000 for the use of the department of psychology in its research program at Lafayette Clinic. Equipment valued at $9,389 was given by the Michigan Mortuary Science Foundation.

From the U. S. Public Health Service, a $59,225 grant will continue research entitled "Therapeutically Promising Antibiotics for Cancer."

RHEUMATIC DISEASES—Nearly 100 members of the American Rheumatism Association recently toured the Rackham Arthritis Research Unit, Ann Arbor, one of the nation's first facilities solely devoted to research in rheumatic diseases. Among those attending was Richard Freyberg, M.D., now of New York City, the original director of the Rackham Arthritis Research Unit.

POSTGRADUATE MEDICAL EDUCATION—For the fourth straight year, twenty medical schools throughout the nation are receiving grants totaling $100,000 from the Wyeth Fund for Postgraduate Medical Education. The grants are unrestricted and the recipients may use the funds in any way they see fit to advance the cause of medical education. Among those receiving the grants was Wayne State University.

TRAVELING ABROAD—In GP magazine, B. H. Kean points out that vacations, business trips and major international conferences are often interrupted by minor ailments that could have been avoided if travelers gave some attention to simple preventive measures. Our government has definite requirements on vaccinations and immunizations, but (depending on the country you plan to visit) you may be in for more "shots" than you thought. Travelers must have been vaccinated against smallpox within three years from the time they expect to return to the U. S. However, in view of the recent outbreaks in India and Pakistan, those planning to travel in such countries should be revaccinated, regardless of the date of the last innoculation.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY—The next scheduled examinations (Part II), oral and clinical, for all candidates will be conducted at Edgewater Beach Hotel, Chicago, by the entire Board from April 11 through 16, 1960. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Contributions for this "News Briefs" department are invited from individual physicians, from county societies, and from other health organizations. Please direct your contributions to the Editor.

The deadline date for the receipt of new and reopened applications for the 1961 examinations is August 1, 1960. Candidates are urged to submit their applications, as soon as possible before that time, to the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

NEW DIRECTOR AMERICAN COLLEGE OF SURGEONS—John Paul North, M.D., Dallas, Texas, will become the director of the American College of Surgeons, effective January 31, 1961. He will succeed Dr. Paul R. Hawley, the College's Director since March, 1950.

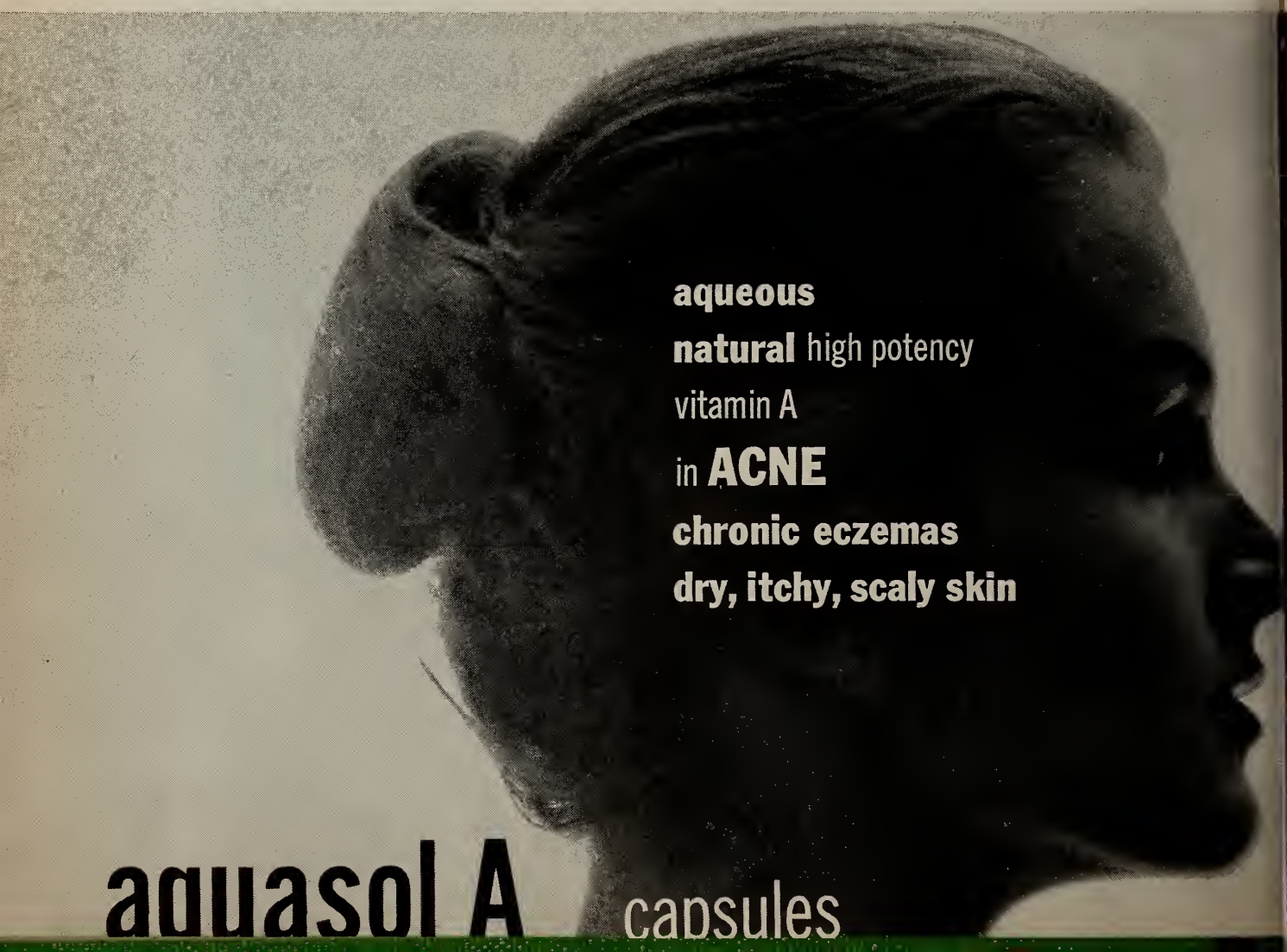
GILL MEMORIAL CONGRESS—The Gill Memorial Eye, Ear, Nose and Throat Hospital will conduct its 33rd annual Spring Congress in Ophthalmology and Otolaryngology in Roanoke, Va., April 4 through 9, 1960. The list of guest speakers includes two from Michigan: James E. Croushore, M.D., Detroit, and John W. Henderson, M.D., Ann Arbor. For information write the Superintendency, P.O. 1789, Roanoke, Va.

POSTGRADUATE COURSES—The University of Michigan Department of Postgraduate Medicine will offer a series of postgraduate refresher courses for practicing physicians beginning with Anatomy, Thursday, February 11, 1960 to May 26; Renal, Pulmonary and Blood Diseases, Tuesday evenings, February 2 to June 14; Gastroenterology, February 22-26; Rheumatology, March 2, 3, 4; Pulmonary Diseases, March 14, 15, 16; Allergy, March 17, 18, 19; Diseases of the Heart, March 21-25; Electrocardiographic Diagnoses, March 28, April 2; Recent Advances in Therapeutics, April 4-8; Endocrinology and Metabolism, April 11-15; Clinical Neurology, April 18, 19; Otolaryngology, April 21, 22, 23; Ophthalmology, April 25, 26, 27; Psychiatry, March 29, March 1; Radiology, Diagnostic, April 4, 5, 6.

RESEARCH FUND ESTABLISHED—The first joint effort to coordinate TB medical research supported by the state TB Association and local affiliates has resulted in a $10,250 fund to be used for grants-in-aid to qualified investigators for proposed or existing research projects on clinical, epidemiological, laboratory and related fields of tuberculosis and pulmonary diseases. Applications are now being accepted for these grants by the Medical Research and Education Committee of the Michigan Tuberculosis Association according to Dr. John W. Towey, chairman.

SEPTEMBER (GERIATRIC) JOURNAL DISTRIBUTED—The State Commission on Aging has requested and received 100 copies of the number of the Journal on Geriatrics, the September, 1959 issue to be distributed among their officials and workers in the Michigan Commission on Aging.

APPOINTED BY AMA—Seward E. Miller, M.D., Ann Arbor, has been appointed by the Board of Trustees of the



AMA as chairman of the Committee on Medical Aspects of Automobile Injuries and Deaths.

HALF CENTURY—Fifty years ago, the first Michigan board of nursing was appointed—and nursing achieved legal status in the state. Today more than 35,000 persons are registered as professional nurses in Michigan and more than 6,000 are licensed as practical nurses. The need for increasing numbers of qualified nursing personnel is cited this year by Florence C. Kempf, chairman of the Michigan Board of Nursing, the regulatory agency appointed by the Governor.

HONOR ANN ARBOR M.D.—Cyrus C. Sturgis, M.D., Ann Arbor, was honored recently as one of the founding members of the American Rheumatism Association. Doctor Sturgis received a scroll commemorating his role in helping to form the organization a quarter century ago.

SUPPORT CANCER PROJECTS—Nine grants totaling $321,894 have been awarded by the Public Health Service to support Community Cancer Demonstration Projects. Five of the projects will deal with tumor records and registries, two will screen large numbers of women for cancer of the cervix and two will further education in cytology, the science of cells.

Purpose of the studies financed by the grants is to shorten the interval between discoveries in research and the application of these findings at the community level.

PROCTOLOGY AWARD CONTEST—The International Academy of Proctology will present its annual awards and certificates at the academy's convention April 27, 1960 in Miami Beach, Florida. The deadline for unpublished works, limited to 5,000 words, was February 1.

FINDS CHARGES UNFOUNDED—The United States District Court at Trenton, N. J., recently found that the Federal government's anti-trust suit against the pharmaceutical houses producing poliomyelitis vaccine was unfounded. The Court ruled that the evidence did not even warrant submission of the case to the jury. The Court directed a judgment of acquittal. The suit had been instituted in May 1958.

NAMED VICE-PRESIDENT—Isidor S. Ravdin, M.D., who spoke at the 1959 Michigan Clinical Institute, is now vice-president for medical affairs at the University of Pennsylvania School of Medicine. Dr. Ravdin, who will continue as a professor of surgery, will be responsible for directing the administrative and academic activities of the medical school.

WRITES ABOUT MCI SPEAKER—"A remarkable talk by an honest psychiatrist" is the title of a brilliantly written guest editorial by Walter C. Alvarez, M.D., of Chicago, which appeared in *The New Physician*, August, 1959 (official journal of the Student American Medical Association). Doctor Alvarez reports in his editorial on a recent

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1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
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talk (May, 1959) by Corbett H. Thigpen, M.D., of Augusta, Georgia, author of "The Three Faces of Eve."

Doctor Thigpen is one of the guest speakers at the 1960 Michigan Clinical Institute, scheduled for the Sheraton-Cadillac Hotel, Detroit, March 8-9-10-11.

SEEK CURE FOR FLU—The U. S. Office of the Surgeon General has given a $92,803 grant to the University of Michigan "to increase the knowledge and understanding toward the diagnosis and prevention of influenza." The grant also will cover the study of similar respiratory diseases. Thomas Francis, Jr., M.D., will be in charge.

OFFER SYMPOSIUM AT JACKSON—A Symposium on Management of Advanced Cancer will be held at Hotel Hayes, Jackson, March 17. The symposium is presented through the cooperation of the Jackson County Cancer Society and the Jackson County Medical Society. Frederick A. Coller, M.D., Ann Arbor, will be the moderator for the program starting at 4 p.m. Panel participants will include Isadore Lampe, M.D., aand George Block, M.D., both of Ann Arbor; George Crile, Jr., M.D., Cleveland, and John W. Raker, M.D., Boston. The panel will be followed by a social hour from 6 to 7, then the banquet and an evening program. Reservations should be made with Robert E. Medlar, M.D., 719 17th Street, Jackson.

INSTITUTE AIDED—General Motors Corporation in December made a gift of $350,000 to the Institute of Industrial Health. That institute, at Ann Arbor, was created in 1950 with a $1,500,000 gift to the Phoenix Project. GM also gave $150,000 in December for studies of the peaceful uses of atomic energy.

NATIONAL HONORS—An award for the best scientific exhibit was given to the Wayne State University Department of Psychiatry at the recent divisional meeting of the American Psychiatric Association. The department is under the direction of John M. Dorsey, M.D. The exhibit was under the direct organization of the Department of Psychiatry of Detroit Receiving Hospital, the main clinical and teaching facility of the WSU department.

FEATURED SPEAKER—John S. DeTar, M.D., Milan, was a featured speaker at the annual College Conference of Teachers of Radiology at New Orleans. The other main speaker at the four-day meeting, February 3-6, was Louis M. Orr, M.D., AMA president.

MICHIGAN DOCTORS ON ACP PROGRAM—The program for the seventh annual regional meeting of the American College of Physicians at Ann Arbor spotlighted several Michigan doctors. Noyes L. Avery, Jr., M.D., Grand Rapids, Michigan governor of the ACP; L. Paul Ralph, M.D., Grand Rapids; Benjamin B. Bushong, M.D., Traverse City, and Douglas Donald, M.D., Detroit, presided over portions of the program. H. Marvin Pollard, M.D., Ann Arbor, regent of the ACP, was chairman of the arrangements committee and John W. Keyes, M.D., Detroit, was program chairman. About 200 internists attended.

Say you saw it in the Journal of the Michigan State Medical Society

MSU STUDIES MEDICAL SCHOOL PROPOSAL

—A Michigan State University committee is continuing its study of a proposed medical school for the East Lansing institution. The university's Board of Trustees heard a progress report at its December meeting and asked for continued study of long-range plans. The committee report proposed combining the pre-clinical sciences for a "medical center" approach. The University now has a College of Veterinary Medicine, School of Nursing and School of Medical Technology and proposes first a college of medicine and later a college of dentistry.

HENRY BLACK DIES—Henry Black, Battle Creek, pioneer and leader in the professional management business, died December 16, 1959. This able businessman had many friends among Michigan doctors of medicine.

HEAR CORNELL SPEAKER—Detroit Roentgen Ray and Radium Society heard an address by John Evans, M.D., of the Cornell Medical Center, at its January 7 meeting. His topic was "Extragastric Lesions of the Upper Gastrointestinal Tract."

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports that the following topics were covered during a two-month period on the weekly Sunday afternoon program over WJBK-TV in Detroit: Food Facts and Fads, Hospital Careers, Mental Health, Hospital Teamwork, Safety, A Career in Medicine and Space Medicine.

MEDICAL MEETINGS U.S.A.

Sixteenth Congress and Graduate Instructional Course in Allergy, The American College of Allergists, February 28, 29, March 1, 2, 3, 4, Bal Harbour, Miami Beach, Florida; for information contact the treasurer, John D. Gillespie, M.D., 2049, Boulder, Colorado.

Annual Meeting of the American Society of Psychosomatic Dentistry and Medicine, March 11-March 13, Shoreham Hotel, Washington, D. C.; for information, contact Dr. Jesse Caden, Chairman Program Committee, 5213 Connecticut Avenue, Washington 15, D. C.

13th Annual Postgraduate Course on Diseases of the Chest, The Council on Postgraduate Medical Education of the American College of Chest Physicians, March 14-18, Sheraton Hotel, Philadelphia.

12th Annual Scientific Assembly, American Academy of General Practice, March 21-24, Convention Hall, Philadelphia.

Clinical Reviews, Mayo Clinic and Mayo Foundation, April 4, 5, 6, Rochester, Minnesota; for information contact Clinical Reviews Committee, Mayo Clinic, Rochester, Minnesota.

The Industrial Health Conference (which includes the 25th annual meeting of the Industrial Medical Association), April 26-28, new War Memorial Auditorium of Rochester, New York.

Fourth Post-Graduate Course on Fractures and Other Trauma, Chicago Committee on Trauma of the American College of Surgeons, April 27-30, John B. Murphy Memorial Auditorium, 50 East Erie Street, Chicago.

The Student American Medical Association, May 5-7, Statler-Hilton Hotel, Los Angeles.

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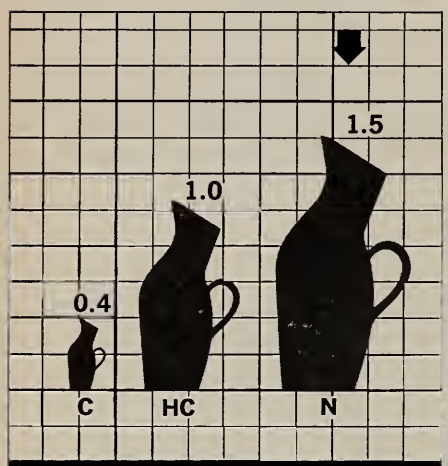
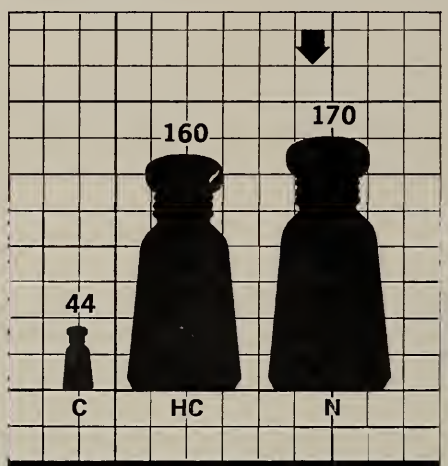
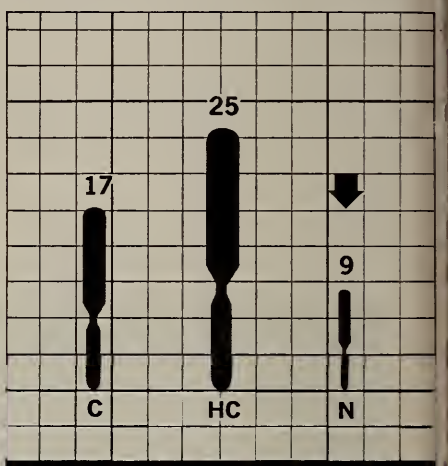
Comparison of electrolyte excretion pattern for the 24 hours following typical doses of chlorothiazide, hydrochlorothiazide, and Naturetin[1]



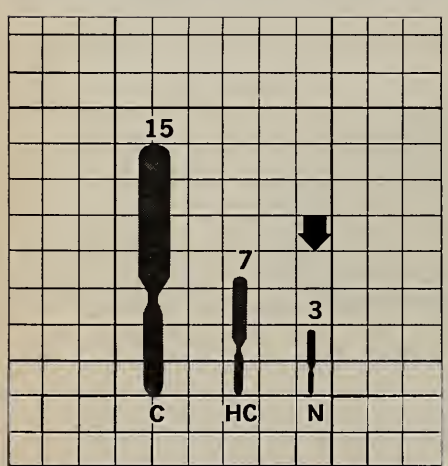
Urinary Volume (liters)
significantly increased
with Naturetin



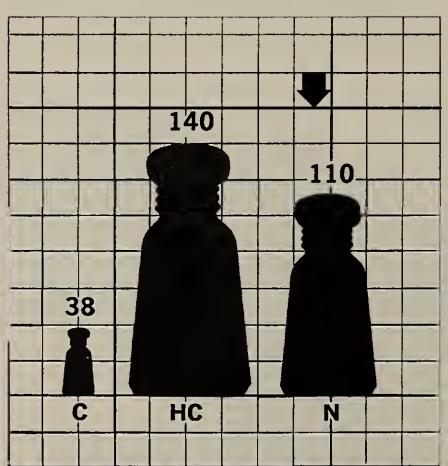
Natriuresis (mEq./24 hr.)
sodium excretion significantly
increased with Naturetin



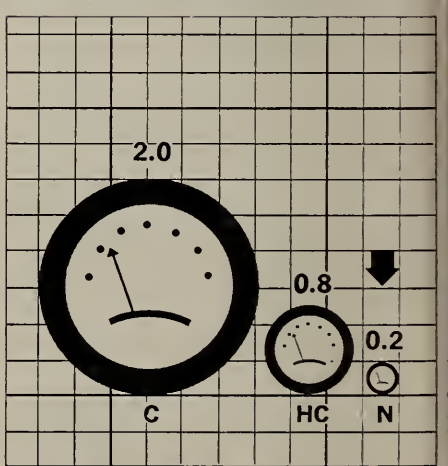
Potassium Excretion
(mEq./24 hr.)
least with Naturetin



Bicarbonate Excretion
(mEq./24 hr.)
least with Naturetin



Chloride Excretion
(mEq./24 hr.)
marked increases



Urinary pH
least increase with Naturetin

Typical Doses: Chlorothiazide—1,000 mg.; Hydrochlorothiazide—50 mg.; Naturetin (Benzydroflumethiazide)—5 mg.

1. Adapted from: Ford, R. V., Squibb Clin. Res. Notes 2:1 (Dec.) 1959.

A single 5 mg. tablet once a day provides all these advantages[2]

- prolonged action — in excess of 18 hours
- convenient once-a-day dosage
- low daily dosage — more economical for the patient
- no significant alteration in normal electrolyte excretion pattern
- repetitively effective as a diuretic and antihypertensive
- greater potency mg. for mg.—more than 100 times as potent as chlorothiazide
- potency maintained with continued administration
- low toxicity — few side effects — low salt diets not necessary
- comparative studies with chlorothiazide, hydrochlorothiazide, and Naturetin disclose that smallest doses of Naturetin produce greater weight loss per day
- in hypertension, Naturetin, alone or in combination with other antihypertensives, produces significant decreases in mean blood pressure and other favorable clinical effects
- purpura and agranulocytosis not observed
- allergic reactions rarely observed

[2]Reports (1959) to the Squibb Institute for Medical Research.

Naturētin —*Indications:* in control of edema when diuresis is required, in congestive heart failure, in the premenstrual syndrome, nephrosis and nephritis, cirrhosis with ascites, edema induced by drugs (certain steroids); in the management of hypertension, used alone, combined with Raudixin (Squibb Rauwolfia Serpentina Whole Root), or with other antihypertensive drugs, such as ganglionic blocking agents.

Contraindications: none, except in complete renal shutdown.

Precautions: when Naturetin is added to an antihypertensive regimen including hydralazine, veratrum, and/or ganglionic blocking agents, immediate reduction must be made in the dosage for all preparations; the dosage for ganglionic blocking agents must be decreased by 50% to avoid a precipitous drop in blood pressure. This also applies if these hypotensive drugs are added to an established Naturetin regimen . . . in hypochloremic alkalosis with or without hypokalemia . . . in cirrhotic patients or those on digitalis therapy when reductions in serum potassium are noted . . . in diabetic patients or those predisposed to diabetes . . . when increased uric acid concentrations are noted . . . when signs—leg or abdominal cramps, pruritus, paresthesia, rash—suggestive of hypersensitivity, are noted.

Naturētin —*Dosage: in edema,* average dose, 5 mg., once daily, preferably in the morning; to initiate therapy, up to 20 mg., once daily or in divided doses; for maintenance, 2.5 to 5.0 mg., daily in a single dose. *In hypertension:* suggested initial dose, 5 to 20 mg. daily; for maintenance, 2.5 to 15 mg. daily, depending on the individual response of the patient. When Naturetin is added to an antihypertensive regimen with other agents, lower maintenance doses of each drug should be used.

Naturētin —*Supplied:* tablets of 2.5 mg. and 5 mg. (scored).

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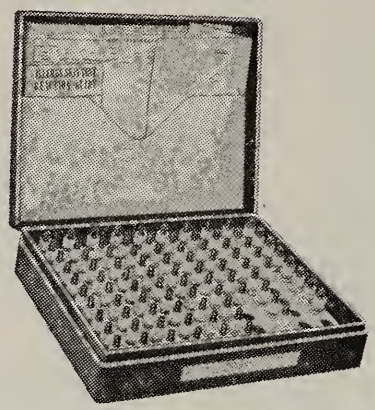

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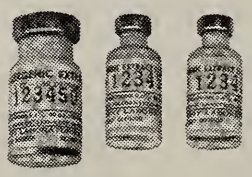

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IN MEMORIAM

GEORGE FRANKLIN BREWINGTON, M.D., ninety-six, former Michigan physician, died in Los Angeles on December 7, 1959.

Doctor Brewington was born in Clarence, Missouri, taught school in his early career and later completed his medical training in St. Joseph, Missouri.

During World War I, Doctor Brewington served as an officer at Fort Oglethorpe, Georgia. Following World War I, he located in Missouri. In 1926, the Brewingtons moved to Michigan where he was associated with the Calumet and Hecla Mining Corporation until his retirement in 1946. In 1950 he moved to Las Vegas, Nevada.

Fraternally, Doctor Brewington was a Mason, Shriner, Elk, Eagle, an American Legionnaire, and a member of the Christian Church. In recognition of his services he was awarded many years ago a Fifty-Year Pin by the American Medical Association and one by the Masonic Order. In 1947, Doctor Brewington received the Fifty-Year Award from the Michigan State Medical Society.

EDWARD A. CARY, M.D., thirty-five, University of Michigan instructor in neurology and head of the neurology staff at Veterans Hospital since 1953, died November 24, 1959.

Doctor Cary was born in Beaumont, Texas. He attended St. Andrew's High School in Middletown, Delaware. He received his B.S. degree from Tulane in 1945 and his M.D. degree from Tulane Medical School in 1947.

From 1947 to 1950, Doctor Cary was an assistant resident, resident and intern in neurology at the University of Michigan. He served in the Naval Reserve Medical Corps from 1950 to 1952. In 1953, he was appointed an instructor in neurology at the University and head of the neurology staff at Veterans Hospital. He had a private practice in Ann Arbor from 1957 to July 1959.

Doctor Cary was a member of Phi Beta Kappa.

RALPH GILMORE COOK, M.D., seventy-eight, Kalamazoo physician, died December 9, 1959.

Born in Ypsilanti and raised in Sandusky, Ohio, Doctor Cook was graduated from the University of Michigan Medical School in 1905.

His fifty-four years of practice began in Vicksburg. He moved from there to Fulton and in 1908 became located in Kalamazoo.

He was Kalamazoo's first city physician and dean of Kalamazoo County's elected officials, having served forty-two consecutive years (1916-1958) as county coroner.

Doctor Cook served as president of the Kalamazoo Academy of Medicine in 1940 and in September, 1956, he was designated by the Michigan State Medical Society as "Michigan's Foremost Family Physician of 1956."

Doctor Cook, an ardent fisherman, was a member of the Kalamazoo Exchange Club and the Masonic Fraternity.

RAYNOLD J. COOK, M.D., fifty-three, Lansing physician, died November 29, 1959.

A 1934 graduate of Loyola University School of Medicine, Chicago, Doctor Cook interned at St. Lawrence hospital. He was a staff member at Edward W. Sparrow and St. Lawrence hospitals.

Doctor Cook was a member of Holy Cross Church, the Holy Name Society and the Knights of Columbus.

FOSTER A. FENNIG, M.D., fifty-eight, Marquette physician, died November 27, 1959.

Born in Celina, Ohio, Doctor Fennig graduated from Wayne University Medical College in 1931.

He served his internship and residency in surgery at St. Joseph Mercy Hospital, Detroit. He was on the staffs at St. Mary's and St. Luke's hospitals.

An Army veteran of World War II, Doctor Fennig was discharged from the Army Medical Corps as a colonel.

Doctor Fennig was past president of the Marquette-Alger County Medical Society, member of the First Methodist Church and Marquette Lions Club.

JOHN H. SCHLEMER, M.D., sixty-four, Detroit practitioner, died January 14, 1960.

Doctor Schlemer was born in Iowa. He received his medical degree from the University of Michigan in 1923 and interned at Grace Hospital. In 1935, he received his law degree from the University of Detroit.

Active in the Wayne County Medical Society, he was three times a member of the council of the society, a member of the by-laws committee and its general practice group and for several years was a member of the editorial board of the *Detroit Medical News*.

He was a member of SS Peter and Paul Church.

WALTER J. SIEMSEN, M.D., fifty-eight, Kalamazoo pediatrician, died December 6, 1959.

Born in Odebolt, Iowa, Doctor Siemsen attended Mission House College, Sheboygan, Wisconsin, and was graduated from the University of Iowa Medical School in 1926. After a year's internship at Butterworth Hospital, Grand Rapids, he spent one year as a fellow of the Mayo Clinic. This was followed by two years at the University of Minnesota Hospital and five years at the University of Chicago Medical School. He practiced in Chicago from 1935-1942, then moved to Kalamazoo.

He entered the Army as a major in October, 1942 and attained the rank of Lieutenant colonel. Discharged in November 1945, he returned to Kalamazoo.

DONALD F. STROHSCHEIN, M.D., fifty-five, Detroit gynecologist, died December 14, 1959.

A native Detroiter, Doctor Strohschein entered practice in 1930 after graduation from Wayne State University College of Medicine.

He was on the staff at Northwest Grace Hospital and a former president of the Wayne State University Medical Alumni Association.

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Medical Authors

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Herman Pinkus, M.D. and **Robert J. Schoenfeld, M.D.,** Detroit, "Weiteres zur Alopecia mucinosa," *Der Hautarzt,* September, 1959; "Skin Cancer and Basic Research in Dermatology," *The Journal of Investigative Dermatology,* October, 1959; "Clinical, Histologic, and Differential Considerations," *The Human Integument,* 1959.

Irving M. Blatt, M.D., Holbrooke S. Seltzer, M.D., Philip Rubin, M.D., A. C. Furstenberg, M.D., James H. Maxwell, M.D., William J. Schull, Ph.D., Ann Arbor, "Fatal Granulomatosis of The Respiratory Tract (Lethal Midline Granuloma-Wegener's Granulomatosis)." *AMA Archives of Otolaryngology.*

William D. Robinson, M.D., Ann Arbor, "The Use of Adrenocortical Steroids in Diseases of Connective Tissue," *University of Michigan Medical Bulletin,* October, 1959.

A. R. Pequet, M.D. and **Ernest H. Watson, M.D.,** Ann Arbor, "Duodenal Atresia Occurring in Siblings," *University of Michigan Medical Bulletin,* October, 1959.

C. E. Laidig, M.D., and **J. M. Pierce, Jr., M.D.,** Detroit, "Retrocaval Ureter—Unusual Cause of Ureteral Obstruction, *Journal of the American Medical Association,* December, 1959.

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I am very pleased to write this letter to you for the great honor that you bestowed upon me. I feel that you were very kind, generous and democratic to select me as Michigan's Foremost Family Physician.

It gives me a deep sense of appreciation and satisfaction to know that you recognize and appreciate the life that I have lived, my work and my association with you.

The long days of hard work, ill health and the difficulties that one occasionally meets with in the practice of medicine are now looked upon as stepping stones to this day, a day of rejoicing.

The plaque that was presented to me is very beautiful and represents great honor. But there is something that is dearer to me than the beauty of the plaque or the honor that it represents, and that is the spirit in which it was given.

The plaque, though beautiful, is yet yours. . . . yours that you have placed in my care to display in a conspicuous place where it may be enjoyed by all members of the Michigan State Medical Society.

My family, my sisters, brothers, patients and friends are rejoicing with me and they join with me in expressing gratefulness to you.

Fraternally yours,
ARCHER A. CLAYTOR, M.D.

Saginaw, Michigan
November 2, 1959

Dear Doctor Haughey:

I am writing you in regard to an article on "School Phobia" that appeared in your September issue of the Michigan Medical Society Journal. This was written by myself and Mr. McKinnon. I though you might be interested in learning of some of the recent developments.

After this article was published in your Journal, a Scripps Howard writer wrote an article for the Cleveland Press, based on the article in the Journal with many quotations. Following this appearance in the paper, we have received numbers of requests for service and for further information regarding the condition from various places in New York, Ohio and in Alabama.

I thought you might be interested in knowing that perhaps someone besides the medical profession reads the Journal and also it gets rather wide distribution.

Sincerely yours,
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Director
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Editorial Comment

Cornell Crash Research

(From *Michigan Hospital Association Bulletin, Volume XIII, Number 10.*)

Michigan had one of the finest records of case completion within the many states which have participated in the Cornell Automotive Crash Research Study, the Cornell people told Albert E. Heustis, M.D., Commissioner, of the Michigan Department of Health which is responsible for coordinating the accident and medical records in the study. The remaining records of this two-year medical study have been forwarded to Cornell University for analysis and IBM recording.

Data from the study has further demonstrated means to lessen the severity of injuries to occupants of motor vehicles involved in accidents through changes in vehicle design.

Physicians and hospitals of Michigan working with the Michigan State Police have compiled an enviable record due largely to the fact that individual physicians, medical record librarians, and hospital administrators, have given priority to this endeavor. Doctor Heustis said we wish to thank each participating hospital and physician for the opportunity we have had in assisting in this life-saving and injury-saving project.

Interns in Small Hospitals

(From Berrien Bulletin, November, 1959)

The past twenty years have brought a marked change in medical practice. The increased interest in post-graduate medical education has brought a large supply of well trained specialists and general practitioners to smaller communities. This along with the establishment of well equipped and progressively administered hospitals has made it possible for the complicated medical problems to receive total care in their own home town.

Many communities, therefore, have the essentials of a good teaching program, namely a well trained and interested attending staff well equipped hospitals, and adequate clinical material.

Some such community hospitals have sought and received approval for intern training after meeting the requirements of the AMA for internships.

These hospitals present to the intern certain advantages over the larger centers that should not be overlooked.

They offer a rotating internship with a balance of specialty and sub-specialty exposure equalling that

(Continued on Page 341)

(Continued from Page 338)

which they will encounter in private practice. The transition to general practice for these interns is smooth. For the doctor headed for specialty training there is no better basis on which to begin that training than a well rounded internship.

These smaller centers give the intern a chance to regain the status he once held. Without being caught between a clerkship and a massive residency program, he is free to assume, under supervision, responsibilities of total patient care.

The intern's opportunity for learning extends from the formal lectures and conferences, with which he is already familiar, to bedside teaching, active and varied emergency room experience, surgical and obstetrical training and visits to offices of attending men for direct contact with the office patient.

The teaching is done by men in active medical practice who bring to the intern a wide range of experience and variety of training which gives the house staff adequate chance to observe many forms of therapy.

Lastly, the intimacy of contact between the attending and house staffs makes almost automatic the transfer of traditional and ethical concepts which are the basis of our profession.

(This Berrien Bulletin editorial was written by Frank W. Howard, M.D.)

A County President's Message

(From Muskegon Bulletin, November, 1959)

The hurry, hurry of each day's routine and care of patients makes us liable to thoughtless actions which affect our relationship to each other as physicians, and our relationship to our patients.

So far as the patient is concerned a great deal of time, effort, and skill go into the proper physiochemical balance for his recovery from disease or for his preparation for surgery. Yet, too often too little is said to properly condition the patient for what is planned for him or for what his financial obligation is going to be.

The time it takes to explain to the patient in Lay terms what his condition is, is time well spent. This concept prepares him for any future complication. If he is to be hospitalized, he is entitled to an estimated length of stay. If surgery is indicated, it is only right

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that he know the anticipated cost of the procedure and whether the procedure is included in his insurance. These things are as important to the patient as it would be to us in any purchase we might make. Where surgeons are concerned, it is only fair to your patient and your colleagues to let the patient know there will be an anesthetist's fee and an assistant's fee which is not included in the surgical fee. Certainly such clarification will add to the peace of mind and recovery of our patients, be greatly appreciated by our colleagues, and lessen the possibility for criticism of the profession.

(This President's Message was written by L. L. Loder, M.D.)

Bay City Resolution

(From Bay, Arenac and Iosco Bulletin, November, 1959)

Following is a resolution adopted by the Bay City City Commission:

Whereas, the city has been saddened by the sudden and shocking loss of one of its outstanding citizens in the tragic death of Dr. James W. Wilcox, killed Saturday, September 5th, in a plane crash in Canada;

And Whereas, Dr. Wilcox, in addition to his outstanding performance in his professional capacity, donated richly of his time and effort in the furtherance of civic projects;

And Whereas, Dr. Wilcox took a deep and abiding interest in the promotion of aviation and especially in the development and expansion of the James Clements Airport;

And Whereas, Dr. Wilcox was primarily instrumental in the current expansion project of the James Clements Airport and said project had the benefit of his untiring devotion and effort;

Be It Therefore Resolved, that the City of Bay City, in acknowledgment of its appreciation of the services rendered by Dr. James W. Wilcox and in expression of regret of his untimely decease, does hereby establish that the north and south runway of the James Clements Airport be and shall hereafter be known as the James W. Wilcox Runway;

And Be It Further Resolved, that a suitable plaque be erected upon the airport property in recognition hereof;

And Be It Further Resolved, that the city clerk be and is hereby instructed to inform the surviving family of Dr. Wilcox of this action.

Commissioner Wilson moved adoption of resolution.

Adopted unanimously.

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

RADIOACTIVE ISOTOPES IN CLINICAL PRACTICE
By Edith H. Quimby, Sc.D., Professor of Radiology (Physics), College of Physicians and Surgeons, Columbia University, New York; Sergei Feitelberg, M.D., Director, Physics Department, Mt. Sinai Hospital, Associate Clinical Professor of Radiology, College of Physicians and Surgeons, Columbia University, New York; and Solomon Silver, M.D., Attending physician, Chief of Thyroid Clinic, Mt. Sinai Hospital, Associate Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York. 422 pages and 97 illustrations. Philadelphia: Lea and Febiger, 1958. Price, $10.00.

Part one of this book is devoted to basic physics. The atomic concept is reviewed and is followed by the present picture of atomic structure, periodic tables, nuclear nomenclature, classification of stable nuclei, dimensions of atoms and nuclei, and nuclear forces. The laws of radioactivity are detailed and a discussion follows on induced radioactivity. Chapters on the nuclear reactions and nuclear fission are clear and concise. Dosage calculations for radioactive isotopes and the biological effects of ionizing radiations are included in the basic physics as well as a very practical discussion of radiation hazards and their avoidance and the disposal of radioactive waste and removal of contamination.

Part two is a discussion of instrumentation and laboratory methods and includes chapters on radiation detectors and auxiliary instruments; basic measurements with radiation detectors both *in vitro* and *in vivo*; observation by radioactive tracers of the time factor in physiological processes and determination of isotope distribution within the body; and autoradiography. This second part concludes with a discussion of the use of radiation detectors in health protection and the details of laboratory design.

Part three deals with the clinical application of radioisotopes. The first forty pages deal with the physiology of the thyroid gland and I^{131}. In turn, then, are discussions in concise detail of the treatment of hyperthyroidism with I^{131}, the contraindications to the use of I^{131} in hyperthyroidism and the effects of I^{131} on the hematopoietic system, and the use of I^{131} in cardiac disease and in thyroid cancer. The physics of other induced radioactive substances comes in for discussion including P^{32}, Sr^{90}, Au^{198}, Fe^{59}, Cr^{51}, K^{42}, As^{74}, Cu^{64}, Co^{60}, and Y^{90}. The use of these substances in the laboratory and in clinical medicine is detailed, as applicable, in polycythemia, the leukemias and lymphomas, in the study of blood and circulation, in intracavitary and interstitial treatments of tumors in many parts of the body, in superficial therapy, and in radioactive tracer techniques.

A short appendix sets down convenient conversion factors, useful physical constants, and physical data for isotopes which may be useful in medicine.

S.B.

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ATLAS OF ROENTGENOGRAPHIC POSITIONS. By Vinita Merrill, while Educational Director, Picker X-Ray Corporation. Volumes One and Two. Second edition. St. Louis: C. V. Mosby Company, 1959. Price, $32.50.

This wonderful Atlas is now in its second edition. A more complete reference book of both standard and unusual radiographic positions does not exist.

The presentation of the material is excellent. The author uses photographs of models, schematic drawings, anatomical sketches, descriptive narrative which is clear and concise, and reproductions of radiographs to facilitate her purpose.

The material is well covered and the facts documented.

In the recent edition, the scope has been increased. The Atlas now covers many procedures using opaque mediums.

The work is dedicated to x-ray technicians, but anyone, including the physicians interested in diagnostic Roentgenology, will find a wealth of useful material.

No completely equipped x-ray department can afford to be without a copy.

G.T.P.

THE TREATMENT OF DIABETES MELLITUS. Tenth edition, revised, illustrated. By Elliott P. Joslin, Howard F. Root, Priscilla White, Alexander Marble. Philadelphia: Lea & Febiger, 1959. Price, $16.50.

This tenth edition of "Treatment of Diabetes Mellitus" is as complete a treatise on the subject as can be found.

The ever changing concepts of diabetes are brought up to date and are fully discussed. The chapter on treatment goes into the problem of diet completely and very understandably. The discussion of methods of insulin administration and the specific uses of the various types of insulin are clear and precise.

The chapter on oral hypoglycemia agents is conservative and certainly will give no one "false hopes."

In all, it is an excellent text for the specialist and generalist alike.

Wm. M. LeFevre, M.D.

GYNECOLOGIC ENDOCRINOLOGY. By Gardner M. Riley, Ph.D., Associate Professor of Obstetrics and Gynecology, University of Michigan Medical School; Director, Reuben Peterson Memorial Research Laboratory, University Hospital, Ann Arbor. Foreword by Norman F. Miller, M.D., Professor and Chairman of Department of Obstetrics and Gynecology, University of Michigan Medical School. New York: Hoeber-Harper, 1959. Price, $8.50.

The purpose of this book was to compile the newest knowledge of endocrinology relating to function and dysfunction of the female reproductive system. For clarity, the subject matter is divided into three sections, namely—Endocrine physiology, which treats the cyclic changes in the genital tract, hormone production in pregnancy and breast physiology. The second section is concerned with clinical problems. The endocrine implications to these conditions is the primary objective of the author. The third section consists of diagnostic procedures, steroid hormone chemistry and endocrine preparations. This section includes the newer concepts of determination of ovulation time together with many other laboratory tests. The chapter on pharmaceutical endocrine preparations is of inestimable value to the busy practitioner, as it takes the numerous trade names for an

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endocrine product and arranges them according to the generic designation.

The author stresses the point that one should first investigate the possibility of organic, systemic, constitutional or psychic causes before investigating the endocrine etiology. The material is mainly concerned with laboratory information as it pertains to the human rather than to the laboratory animal.

This book is very well written. It has correlated the newer concepts of endocrinology and stated them in a way every practitioner can benefit from their reading. This book is an asset to any practitioners library.

J.R.P.

BABIES BY CHOICE OR BY CHANCE. By Alan F. Guttmacher, M.D. Doubleday & Company, Inc. Garden City, New York. 1959. Price $3.95.

This book deals primarily with the fear of overpopulation and its solution. The material is divided into a discussion of contraceptives in common use today and the more perfect ones in the foreseeable future. The subject of sterilization is fully treated, as well as artificial insemination with its many legal entanglements. Abortion and its many ramifications are discussed both in this country and other countries of the world. The socio-economic and the legal aspects are treated in detail. The author brings out the attitudes of various religions concerning these subjects.

This book is recommended for those individuals interested in a well-written treatise on birth control.

J.R.P.

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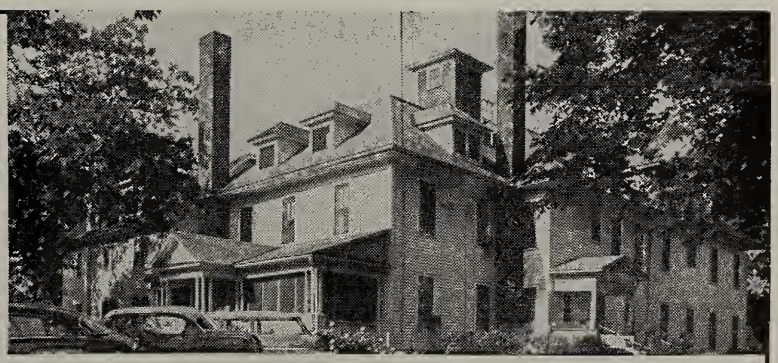

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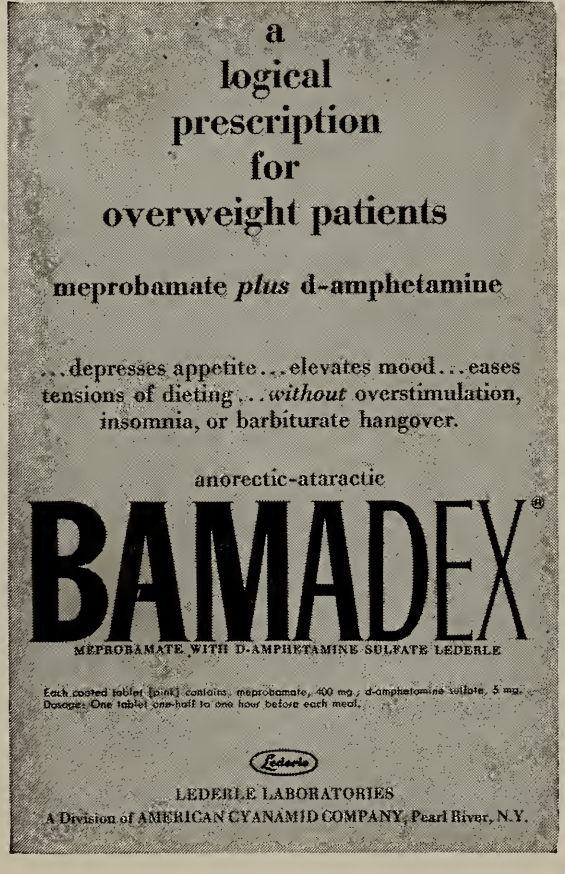

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Volume 59 Number 3

March, 1960

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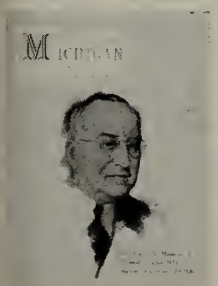

THE COVER

L. Fernald Foster, M.D., eminent pediatrician of Bay City, served brilliantly and tirelessly as Secretary of the Michigan State Medical Society from September 1936 until his death in May 1959. Medicine was both his vocation and his avocation.

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Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Creek	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

*To fill unexpired term of R. W. Shook, M.D., deceased.

SOMA RELIEVES PAIN in a unique way by modifying central perception of pain without abolishing natural defense reflexes.

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Kuge, T.: Submitted for publication.

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Wein, A. B.: The Use of Carisoprodol in Orthopedic Surgery and Rehabilitation. Proceedings of the Symposium on The Pharmacology and Clinical Usefulness of Carisoprodol. Wayne State University Press, Detroit, 1959, p. 156.

In a double-blind study, SOMA was reported to be "clinically effective to a highly significant degree." (92 patients.)
Cooper, C. D., and Epstein, J. H.: The Clinical Evaluation of Carisoprodol by a double-blind technique. Ibid. p. 97.

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Sustained effect—relief lasts up to 6 hours

Easy to use—usual adult dose is one 350 mg. tablet 3 times daily and at bedtime

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Literature and samples on request WALLACE LABORATORIES, New Brunswick, New Jersey

President's Page

LEGACY

Milton A. Darling

President
Michigan State Medical Society

Nearly a year has elapsed since Medicine in Michigan lost one of its most revered members. Perhaps these intervening months have given us a better perspective to evaluate his outstanding contributions to the profession.

Certainly, we must realize how far-reaching was his influence throughout state and how difficult it is to replace a man of such sterling qualities.

Dedicated, articulate, outspoken—he challenged the opposition when convinced of the justice of his position.

For him, there was no limit of time when a job was to be done. His service to the public in translating Medicine's aims and ideals is impossible to estimate. Unstinting and unpublicized were the many extra hours spent in line of duty.

Obviously, such a schedule demanded a most understanding wife. That "Kitty" is so beloved by her husband's associates is a tribute in itself.

His is a legacy that bears testimony to his remarkable achievements. The many grateful patients whom he benefited; the Medical Society to which he devoted his unusual talents; the public which is wiser for his judgment and counsel; his host of loyal friends—all pay homage to the memory of Dr. L. Fernald Foster.

Challenge of Today

The Michigan State Medical Society held the 1960 Annual County Secretaries-Public Relations Seminar at the Sheraton-Cadillac Hotel in Detroit January 30-31, 1960. The co-chairmen were Ray M. Duffy, M.D., of Pinckney, Chairman of the County Society Secretaries, and R. Wallace Teed, M.D., Ann Arbor, Chairman of the Michigan State Medical Society Public Relations Committee.

Invited were the presidents, presidents-elect, secretaries and editors of all county medical societies. Also invited were the public relations officers of these societies and the public relations committee of the MSMS. There were 249 registered altogether.

Also, in conjunction with the Seminar, there was a county Editors Workshop, held on Saturday preceding the meeting opening.

* * *

A HIGHLIGHT OF THE Seminar was an address by Louis M. Orr, M.D., Orlando, Florida, President of the AMA, discussing "Problems of the Aging—An Immediate Challenge."

Speaking of the Forand-type legislation which the AMA has opposed and classified as vicious legislation, he remarked: "I fear that some proponents are not primarily concerned with the needs of the aged, health or otherwise. My aim is to issue a strong warning to you. This is not a routine rhetorical warning, but rather an urgent call to prevent a medical and national disaster.

"The time has come for every one of us to get out of our offices and laboratories and do something. If we do not act immediately, we are lost. This may sound over-exaggerated to some of you, but I mean it. The leaders and spokesmen of the medical profession and allied groups have done all in their power to fight the Forand Bill. Now it is up to every one of you to get in this fight.

"Please do not think for a moment that passage of the Forand Bill will mean anything less than ultimate government control of medical and health care in the United States. Any element of Forand-type legislation would be a foot in the door which then could be expanded. It is the group of unconcerned physicians that we must alert to the dangers of the Forand Bill. I believe most strongly that only by marshalling every doctor in America, will we be able to successfully battle this dangerous threat."

Arthur L. Tuuri, M.D., *(left)*, of the Mott Foundation, stands with Charles Stuart Mott as he accepts the Distinguished Health Service Award from MSMS President M. A. Darling, M.D. Looking on are MSMS Councilor H. H. Hiscock, M.D., and George E. Anthony, M.D., *(right)*, president of the Genesee County Medical Society.

A PANEL DISCUSSION followed Dr. Orr's address. F. C. Swartz, M.D., Lansing, Chairman of the AMA Committee on Aging, outlined the actual needs and cautioned of the very much over-exaggerated conditions of financial and other desperation of the aged people. He said the group in desperate condition is very small. The majority of those over 65 have established resources which will care for them financially. The desperation of a few is being used to scare the American public into adopting Forand-type legislation. If this is passed it will be following the example of what happened in England.

G. Thomas McKean, M.D., told what is being done and has been done by the Blue Cross-Blue Shield, so that the aged in Michigan may secure prepaid insurance. G. E. Millard, M.D., of Detroit, moderated the afternoon session. The panel discussion was led by P. T. Mulligan, M.D., of Mount Clemens.

* * *

THE AWARDS BANQUET January 30, filled the Grand Ballroom to capacity. The toastmaster was Kenneth H. Johnson, M.D., President-Elect of the MSMS. D. Bruce Wiley, M.D., MSMS Secretary, made announcements of actions taken by The Council and others.

The address of the evening, "Face Up, Speak Up, Shape Up," was by Roger J. Samp, M.D., Madison, Wisconsin.

R. Wallace Teed, M.D., of Ann Arbor, chairman of the MSMS Public Relations Committee, presided at the January 31 morning program. There was a panel discussion led by D. Bruce Wiley, M.D., Secretary, MSMS, as moderator. Taking part were J. C. Heffelfinger, M.D., of Coldwater; J. B. Rowe, M.D., of Flint, and H. C. Tellman, M.D., of Muskegon. A question and answer period followed.

Later in the forenoon Lester P. Dodd, J. D., Legal Counsel, MSMS, talked about "Federal tax aspects of medical society activities."

Milton A. Darling, M.D., MSMS President, and Kenneth H. Johnson, M.D., MSMS President-Elect, discussed the "President's Program" in which the MSMS and other co-operating interests will seek to add useful years to life. At the luncheon, H. J. Meier, M.D., newly elected Chairman of The Council, acted as toastmaster and the main address was given by Professor Walter J. McNerney, Ann Arbor, on the monumental study of Medical and Hospital Care in Michigan.

J. B. Rowe, M.D., of Flint, was elected next year's Chairman of County Society Secretaries.

* * *

The Seminar drew 249 registrations, including:

County Secretaries.— H. E. Schneiter, M.D., (Allegan), Harold Kessler, M.D., (Alpena-Alcona-Presque Isle), D. H. Castleman, M.D., (Barry), H. T. Knobloch, M.D., (Bay-Arenac-Iosco), W. J. Kenfield, M.D., (Berrien), T. B. Mackie, M.D., (Chippewa-Mackinac), J. B. Rowe, M.D., (Genesee), P. H. Ringer, Jr., M.D., (Gratiot-Isabella-Clare), F. M. Wes-

sels, M.D., (Hillsdale), R. C. Dixon, M.D., (Huron), W. D. Cheney, M.D., (Ingham), H. W. Porter, M.D., (Jackson), R. D. Warnke, M.D., (Kalamazoo), Wm. W. Jack, M.D., (Kent), C. E. Conaway, M.D., (Lapeer), Patricia F. Wentz, M.D., (Adrian), R. M. Duffy, M.D., (Livingston), P. V. Kane, M.D., (Macomb), J. E. Walters, M.D., (Mecosta-Osceola-Lake), G. H. Hopson, M.D., (Menominee), R. A. Frary, M.D., (Monroe), H. Clay Tellman, M.D., (Muskegon), R. W. Emerick, M.D., (Newaygo), P. A. Dosch, M.D., (North Central), T. B. Kirk, M.D., (Northern Michigan), J. A. Read, M.D., (Oakland), W. F. Strong, M.D., (Ontonagon), Michael Raftery, M.D., (St. Clair), A. B. Thompson, M.D., (Saginaw), A. E. Parks, M.D., (Van Buren), G. H. Bauer, M.D., (Washtenaw), H. M. Fuller, M.D., (Wayne).

County Presidents.—C. S. Wilson, M.D., (Alpena-Alcona-Presque Isle), R. G. Finnie, M.D., (Barry), C. W. Reuter, M.D., (Bay-Arenac-Iosco), E. D. Hamilton, M.D., (Branch), C. H. Clausen, M.D., (Chippewa-Mackinac), G. E. Anthony, M.D., (Genesee), J. H. Bergin, M.D., (Gratiot-Isabella-Clare), J. R. Lentini, M.D., (Kent), C. L. Cook, M.D., (Lenawee), M. S. Reizen, M.D., (Macomb), L. A. Hickox, M.D., (Mecosta-Osceola-Lake), C. H. Willison, M.D., (Midland), G. B. Loan, M.D., (Monroe), A. L. Benedict, M.D., (Muskegon), Duane E. Smith, M.D., (Sanilac), J. D. Cantwell, Jr., (St. Clair), H. R. Weisheit, M.D., (St. Joseph), M. R. Weed, M.D., (Wayne), G. P. Moore, M.D., (Wexford-Missaukee).

County Presidents-Elect.—J. E. Mahan, M.D., (Allegan), F. W. Baske, M.D., (Genesee), David Kahn, M.D., (Ingham), L. R. Banner, (Kalamazoo), Jack Hoogerhyde, M.D., (Kent), K. H. Whitehouse, M.D., (Lenawee), Victor Curatolo, M.D., (Macomb), M. B. Meengs, M.D., (Muskegon), E. F. Crippen, M.D., (Northern Michigan), D. J. Millard, M.D., (Van Buren), O. K. Engelke, M.D., (Washtenaw), D. I. Sugar, M.D., (Wayne).

County Bulletin Editors.—J. C. Heffelfinger, M.D., (Branch), P. K. Stevens, M.D., (Genesee), J. L. Isbister, M.D., (Ingham), L. A. Dick, M.D., (Kalamazoo), W. J. Hanley, M.D., (Muskegon), H. L. Miller, M.D., (Oakland), R. J. Gerard, M.D., (Saginaw), Wm. J. Stapleton, Jr., M.D., (Wayne), (Associate Editor), C. W. Sellers, M.D., (Wayne), (Associate Editor), W. G. White, M.D., (Muskegon), (Associate Editor).

Public Relations Chairmen.—G. L. Hagelshaw, M.D., (Bay-Arenac-Iosco), A. B. Gwinn, M.D., (Barry), R. E. Reagan, M.D., (Berrien), G. T. Kelleher, M.D., (Calhoun), F. W. Smith, M.D., (Clinton), C. L. Hoogerland, M.D., (Gratiot-Isabella-Clare), D. B. Hiscoe, M.D., (Ingham), R. J. Kobs, M.D., Jackson), E. L. Stone, M.D., (Jackson), R. H. Hume, M.D., (Kalamazoo), R. F. Hauer, M.D., (Livingston), P. C. Hopson, M.D., (Menominee), L. E. Grate, M.D., (Northern Michigan), M. G. Prosser, M.D. (Oakland), S. W. Kuipers, M.D., (Ottawa), W. G. Mason, M.D., (Saginaw), W. J. Dinnen, M.D., (St. Clair), H. C. Johnson, M.D., (Van Buren), E. H. Place, M.D., Pro Tem (Washtenaw), S. E. Chapin, M.D., (Wayne).

MSMS Council.—O. J. Johnson, M.D. (Bay), H. J. Meier, M.D., (Branch), Editor Wilfrid Haughey, M.D., (Calhoun), E. S. Oldham, M.D., (Gratiot-Isabella-Clare), T. P. Wickliffe, M.D., (Houghton-Keweenaw-Baraga), K. H. Johnson, M.D., (Ingham), O. B. McGillicuddy, M.D., (Ingham), Wm. A. Scott, M.D., (Kalamazoo), C. Allen Payne, M.D., (Kent), D. Bruce Wiley, M.D., (Macomb), Wm. M. LeFevre, M.D., (Muskegon), G. B. Saltonstall, M.D., (Northern Michigan), C. N. Hoyt, M.D., (St. Clair), L. J. Bailey, M.D., (Wayne),

H. Marvin Pollard, M.D., *(left)*, Ann Arbor, is given his President's Award by Doctor Darling as distinguished guest Louis M. Orr, M.D., president of the American Medical Association, looks on.

Reed M. Nesbit, M.D., *(left)*, Ann Arbor, takes an advance glance at his President's Award which was presented formally at the Banquet by President M. A. Darling, M.D. All awards were framed after presentation according to recipient's preference.

Representing the Muskegon *Chronicle* was Bruce McCrea who attended the Awards Banquet on behalf of the publisher. The award cited the newspaper for its contribution to the success of the 1959 polio immunization campaign in Muskegon County.

William Bromme, M.D., (Wayne), Milton A. Darling, M.D., (Wayne), G. Thomas McKean, M.D., (Wayne), A. E. Schiller, M.D., (Wayne).

Executive Secretaries.—Ruth Simmons, (Genesee), Jack Kantner, (Ingham), R. L. Warnshuis, (Kent), Mrs. F. H. Bartlett, (Muskegon), Mrs. Mary G. Haines, (Oakland), Else Kolhede, (Wayne).

Woman's Auxiliary Representatives.—Mrs. Ross V. Taylor, (Jackson), Mrs. Paul Ivkovich, (Mecosta-Osceola-Lake), Mrs. Harold H. Gay, (Midland), Mrs. C. I. Owen, (Wayne).

RECORD OF ATTENDANCE AT MSMS COUNTY SECRETARIES-PUBLIC RELATIONS SEMINAR

County or District Medical Society	*President*	*President-Elect*	*Secretary*	*County PR Chairmen*	*Editor*	*MSMS Council*	*MSMS PR Committee*	*Executive Secretary*
Allegan	O	X	X	O	N	N	N	N
Alpena-Alcona-Presque Isle	X	O	X	O	N	N	X	N
Barry	X	N	X	X	N	N	O	N
Bay-Arenac-Iosco	X	N	X	O	O	X	O	N
Berrien	O	O	X	X	O	N	N	N
Branch	X	O	O	O	X	X	O	N
Calhoun	O	O	O	X	O	X	X	N
Cass	O	N	O	N	N	N	N	N
Chippewa-Mackinac	X	O	X	O	N	O	O	N
Clinton	O	O	O	X	N	N	O	N
Delta-Schoolcraft	O	O	O	N	N	N	X	N
Dickinson-Iron	O	O	O	O	O	N	O	N
Eaton	O	O	O	N	N	N	N	N
Genesee	X	X	X	O	X	O	XXX	X
Gogebic	O	O	O	O	N	N	N	N
Grand Traverse-Leelanau-Benzie	O	O	O	O	O	O	O	N
Gratiot-Isabella-Clare	X	O	X	X	N	X	X	N
Hillsdale	O	O	X	N	N	N	N	N
Houghton-Baraga-Keweenaw	O	O	O	O	N	X	O	N
Huron	O	O	X	O	N	N	O	N
Ingham	O	X	X	X	X	X	X	X
Ionia-Montcalm	O	O	O	O	N	N	N	N
Jackson	O	O	X	XX	N	N	N	N
Kalamazoo	O	X	X	X	X	X	O	N
Kent	X	X	X	O	O	XO	X	X
Lapeer	O	N	X	O	N	N	O	N
Lenawee	X	X	O	O	O	N	N	N
Livingston	O	O	X	X	N	N	X	N
Luce	O	O	O	N	N	N	N	N
Macomb	X	X	X	O	N	X	O	N
Manistee	O	X	O	O	N	N	N	N
Marquette-Alger	O	O	O	O	N	N	O	N
Mason	O	N	O	O	N	N	N	N
Mecosta-Osceola-Lake	X	O	X	O	N	N	N	N
Menominee	O	O	X	X	N	N	N	N
Midland	X	O	O	O	N	N	N	N
Monroe	X	O	X	X	N	N	O	N
Muskegon	X	X	X	X	X	X	X	X
Newaygo	O	O	X	O	N	N	N	N
North Central	O	O	X	N	N	N	O	N
Northern Michigan	O	X	X	X	X	X	OO	N
Oakland	O	O	X	X	X	O	OO	X
Oceana	O	N	O	N	N	N	N	N
Ontonagon	O	O	X	O	O	N	O	N
Ottawa	O	O	O	X	N	N	N	N
Saginaw	O	O	X	X	X	N	XO	O
St. Clair	X	O	X	X	X	X	X	N
St. Joseph	X	O	O	O	N	N	X	N
Sanilac	X	O	O	O	N	N	N	N
Shiawassee	O	O	O	O	N	N	X	N
Tuscola	O	O	O	N	O	N	N	N
Van Buren	O	X	X	X	N	N	N	N
Washtenaw	O	X	X	X	O	OO	XX	O
Wayne	X	X	X	X	O	XX XXX	XX XX OOOO	X
Wexford-Missaukee	X	N	O	O	N	N	N	N

Others present at the Seminar were: Woman's Auxiliary representatives, 4; Michigan State Medical Assistants Society representatives, 2; Michigan Medical Service representatives, 12; Michigan Hospital Service representatives, 4; Program Participants, 18; guests 76.

X Present O Absent N None

Michigan State Medical Assistants Society Representatives.—Reta V. Stahl, (Albion), Beth E. Brin, (Saginaw).

Public Relations Committee.—R. W. Teed, M.D., Chairman, (Washtenaw), J. W. Bunting, M.D., (Alpena-Alcona-Presque Isle), H. C. Hansen, M.D., (Calhoun), W. G. Gamble, M.D., (Bay-Arenac-Iosco), J. R. Dehlin, M.D., (Delta-Schoolcraft), W. Z. Rundles, Sr., M.D., (Genesee), C. K. Stroup, M.D., (Genesee), R. E. Anderson, M.D., (Genesee), H. G. Benjamin, M.D., (Kent), David Kahn, M.D., (Ingham), E. W. Schnoor, M.D., (Kent), S. L. Hoffman, M.D., (Livingston), H. D. Dykhuizen, M.D., (Muskegon), F. E. Luger, M.D., (Saginaw), Wm. J. Dinnen, M.D., (St. Clair), J. M. Jacobowitz, M.D., (St. Joseph), C. L. Weston, M.D., (Shiawassee), J. M. Sheldon, M.D., (Washtenaw), S. E. Chapin, M.D., (Wayne), L. T. Henderson, M.D., (Wayne), E. C. Long, M.D. (Wayne), G. L. Millard, M.D., (Wayne).

Participants on the Program.—Milton A. Darling, M.D., (Detroit), Lester P. Dodd, LL.B., (Detroit), Ray M. Duffy, M.D., (Pinckney), Stephen E. Gavin, Jr., M.D., (Madison, Wisconsin), J. C. Heffelfinger, M.D., (Coldwater), Kenneth H. Johnson, M.D., (Lansing), G. Thomas McKean, M.D., (Detroit), Professor W. J. McNerney, (Ann Arbor), G. E. Millard, M.D., (Detroit), P. T. Mulligan, M.D., (Mt. Clemens), Louis M. Orr, M.D., (Orlando, Florida), J. B. Rowe, M.D., (Flint), R. J. Samp, M.D., (Madison, Wisconsin), A. E. Schiller, M.D., (Detroit), F. C. Swartz, M.D., (Lansing), R. Wallace Teed, M.D., (Ann Arbor), H. Clay Tellman, M.D., (Muskegon), D. Bruce Wiley, M.D., Utica)

Guests.—Henry Alexander, (Detroit), Mrs. R. E. Anderson, (Flint), Mrs. L. R. Banner, (Kalamazoo), Rudy Bolich, (Ironwood), W. W. Boyles, (Detroit), Russell J. Burns, (Ann Arbor), Mrs. J. D. Cantwell, Jr., (Port Huron), Richard N. Capuano ,(Detroit), H. E. Cartwright, (Chicago), Mrs. D. H. Castleman, (Hastings), Mrs. C. L. Cook, (Tecumseh), Mrs. Chas. E. Conaway, (Lapeer), Mrs. Victor Curatolo, (Macomb), Mrs. Milton A. Darling, (Detroit), Mrs. James R. Dehlin, (Gladstone), Mrs. Wm. J. Dinnen, (Port Huron), Mrs. Lester P. Dodd, (Detroit), Mr. and Mrs. John A. Doherty, (East Lansing), Mrs. P. A. Dosch, (Grayling), Mrs. R. W. Emerick, (Fremont), Mrs. O. K. Engelke (Washtenaw), Mr. and Mrs. Lee E. Feldkamp, (Plymouth), Mrs. R. G. Finnie, (Hastings), Mr. Jim Foley, (Detroit), Mrs. R. A. Frary, (Monroe), Mrs. W. G. Gamble (Bay City), Everette Gustafson, M.D., (Pontiac), Dr. and Mrs. W. W. Hammond, Jr., (Plymouth), Mrs. H. C. Hansen, (Calhoun), S. T. Harris, M.D., (Ypsilanti), D. B. Heilbronn, M.D., (Saginaw), Mrs. L. A. Hickox, (Big Rapids), Mrs. D. B. Hiscoe (Lansing), Mrs. Jack Hoogerhyde, (Grand Rapids), Wm. N. Hubbard, (Ann Arbor), Paul Ivkovich, M.D., (Reed City), Mrs. John M. Jacobowitz, (Three Rivers), Mrs. H. C. Johnson, (Paw Paw), Mrs. O. J. Johnson, (Bay City), Mrs. W. John Kenfield, (Benton Harbor), Mrs. Harold Kessler, (Alpena), Carl G. King, (Saginaw), Peter E. Klein, (Detroit), Mrs. R. J. Kobs, (Jackson), Mrs. Wm. M. LeFevre, (Muskegon), Mrs. G. B. Loan, (Monroe), Miss E. K. Longley, (Ludington), Mrs. T. B. Mackie, (Sault Ste. Marie), Mrs. Wm. G. Mason, (Saginaw), W. G. McClimans, (Grand Rapids), Mrs. Bruce McCrea, (Muskegon), R. H. McDonough, (Grand Rapids), Mrs. M. B. Meengs, (Muskegon), Mrs. David J. Millard, (Paw Paw), Mrs. G. P. Moore, (Cadillac), John Nelson, (Pontiac), J. Irvin Nichols, (Lansing), C. I. Owen, M.D., (Detroit), Tom Paton, (Detroit), Mrs. C. Allen Payne, (Grand Rapids), H. G. Pearce, (Detroit), Mrs. E. H. Place, (Ann Arbor), Mrs. M. G. Prosser, (Pontiac),

(Continued on Page 382)

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Adult dosage: Gastric hyperacidity—2 to 4 tablets as necessary. Peptic ulcer or gastritis—2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed whole with water or milk, or allowed to dissolve in the mouth.

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1. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:380, July, 1959. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:384, July, 1959.

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(Continued from Page 380)

Mrs. Michael Raftery, (Port Huron), D. D. Randall, (Flint), Mrs. R. E. Reagan, (Benton Harbor), Wm. J. Regan, M.D., (Ann Arbor), Mrs. M. S. Reizen, (Warren), Mrs. C. W. Reuter, (Bay City), Chuck Rickett, (Traverse City), Mrs. J. B. Rowe, (Flint), Mrs. G. B. Saltonstall, (Charlevoix), Helen Schick, (Detroit), E. W. Scruby, (Kalamazoo), Mrs. J. M. Sheldon, (Ann Arbor), Mrs. Duane Smith, (Brown City), Louise Smith, (St. Johns), R. H. Stauch, (Detroit), S. D. Steiner, M.D., (Detroit), Mrs. E. L. Stone, (Jackson), R. V. Taylor, M.D., (Jackson), Mrs. A. B. Thompson, (Saginaw), Kay Topp, (Saginaw), Franz Topol, (Flint), Marguerite M. Vergosen, (Detroit), Robert R. Wadlund, M.D., (Howell), Mrs. R. D. Warnke, (Kalamazoo), J. M. Wellman, M.D., Lansing), Mrs. C. L. Weston, (Owosso), Mrs. D. Bruce Wiley, (Utica), Mrs. C. H. Willison, (Midland).

Social Workers Hear Doctors in Flint

Relationships of the medical profession to social work was discussed by a panel of physicians before a Social Workers meeting in January in Flint.

On the panel were Doctors J. C. Benson, R. G. Sandberg, H. B. Elliott, and M. G. Fee. Moderator was G. E. Anthony, M.D., president of the Genesee County Medical Society

Macomb CMS Honors 45-Year Practitioners

In January, the Macomb County Medical Society honored two of its members who have been in practice for 45 years. Milton C. Smith, M.D., of Mt. Clemens, and Allan B. Bower, M.D., of Armada, were feted at the Society's monthly dinner meeting.

Oakland Emergency Call System Draws Accolade

When the Oakland County Medical Society announced the inauguration of a new Emergency Call System in early December, area newspapers hailed the action of the county's 400 doctors. The Society's Public Relations Chairman Everette Gustafson, M.D., explained in news releases that two doctors would be on duty in each 24-hour alert period, to handle any emergency in which the family doctor could not be located. When called, the answering service will contact one of the doctors on duty, who will return the call at once, either prescribing a medication, making a home visit, or arranging for hospital admission.

Offer Keogh-Simpson Films

County societies in Michigan may be interested in showing a film on the Keogh-Simpson Bill. The American Thrift Assembly, Room 612, 1025 Connecticut Avenue, N.W., Washington 6, D. C., offers three 10-minute, 16-millimeter films which feature interviews with (1) Smathers, (2) Moss and Smathers, and (3) Allott and Simpson.

Genesee Cancer Clinic April 13

Outstanding speakers will be offered at the Genesee County Annual Cancer Clinic, April 13. The scientific program will be held at the Merliss Brown Auditorium at Hurley Hospital.

George E. Anthony, Genesee president, will begin the program at 9:30 a.m. The morning speakers will include John R. McDonald, M.D., Detroit, on "The Pathology of Mediastinal Tumors;" Thomas H. Burford, M.D., St. Louis, on "The Surgery of Mediastinal Tumors," and Henry J. Jaffe, M.D., New York, on "Diagnostic Problems Relating to Certain Primary Bone Tumors."

Afternoon speakers are Cushman Haagensen, M.D., New York, on "The Surgery of Breast Cancer;" Ruth J. Guttmann, M.D., New York, on "Radiotherapy for Cancer of the Breast," and Henry T. Randall, M.D., on "Endocrine Management of Breast Cancer."

(Continued on Page 384)

MICHIGAN MEDICAL MEETINGS AND CLINIC DAYS

March 21-22	Michigan Conference on Comparative Medicine	East Lansing
April 7	Ingham County Medical Society Spring Clinic	Lansing
April 13	Genesee County Cancer Day	Flint
May 4	Wayne State University Clinic Day and Alumni Reunion	Detroit
June 17-18	Upper Peninsula Medical Society	Escanaba
July 28-29	Coller-Penberthy Clinic	Traverse City

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*Peterman, R. A.: Clinical report cited with permission.

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(Continued from Page 382)

List Ingham Clinic Speakers

The 32nd Annual Spring Clinic will be sponsored by the Ingham County Medical Society at the Lansing Civic Center small auditorium April 7.

The program will begin at 9:30 a.m. with the morning addresses on "Space Medicine" by Col. John Stapp, M.D., Dayton; "The Treatment of Cancer of the Cervix" by Juan A del Regato, M.D., Colorado Springs, and "Office Recognition of Some Commonly Misdiagnosed Endocrinopathies in Children" by John D. Crawford, M.D., Boston.

The next series of speakers beginning with luncheon will cover "Malpractice" by Russell S. Fisher, M.D., Baltimore; "Systematic Approach to Diagnosis of Body Fluid Disturbances" by W. D. Snively, Jr., M.D., Evansville; "Choosing the Right Prostatic Operation" by C. Donald Creevy, M.D., Minneapolis; "Pediatric Surgery" by John Keeley, M.D., Chicago, and "Impotency and Frigidity" by Donald W. Hastings, M.D., Minneapolis. The program will adjourn at 5:25 p.m.

Perry C. Spencer, M.D., Ingham president, will preside.

Do You Know . . .

Your MSMS Annual Session is less than six months away?

September 27-30, 1960
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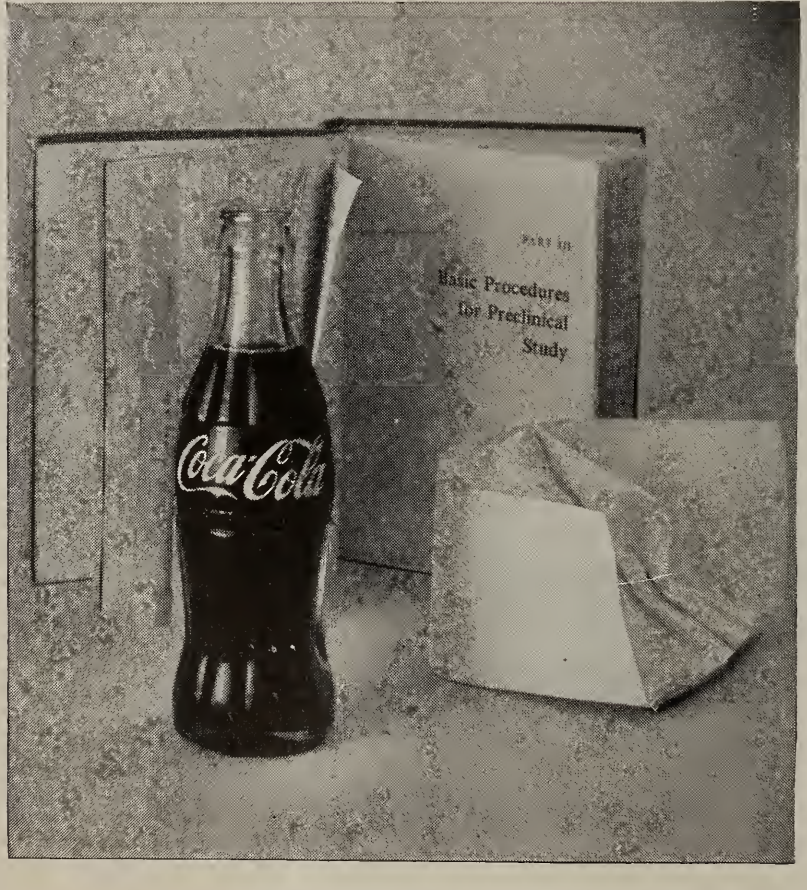
YOU HAVE A DATE!

MORE SOCIETY NEWS . . .

In addition to the MSMS news in this section, further information from the Annual Session of The Council appears on Pages 460-474.



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ChallengesDoc tors to Meet Public's Need, And to Sell

By Claude Robinson, Ph.D.
Chairman of the Board, Opinion Research Corporation
Princeton, N. J.

(Because of the importance of this subject, The Council of MSMS directed that excerpts of Doctor Robinson's remarks be reprinted. The talk, delivered in Chicago, August 20, 1959, has been condensed by R. W. Teed, M.D., chairman of the MSMS Public Relations Committee.)

For the past 20 years I have been in the front line trenches in this battle of socialization of our national life. I have served on many fronts and have had the opportunity of participating in a great number of industrial and public relations campaigns. At the same time, I have been engaged in scores of campaigns to merchandise economic goods and services.

This has been something of a unique professional experience, and out of it I have formulated an operative theory which I believe is both practical and effective in our struggle today.

* * *

I HAVE COME to the conclusion that if we will define our struggle against socialism basically as a merchandising problem we will be dealing not only realistically with it but also we will have some very extensive guide lines in the field of merchandising to direct us.

In any merchandising situation you always have the problem of the product and the sale of the product. Any successful merchandiser would testify that it is necessary first to make a good product, with features, style, quality and various other attributes that the consumer wants and will pay for. Also the product must be priced attractively.

However, a good product alone is not enough in itself. Good products must be sold; they don't sell themselves.

The key to successful selling boils down to two fundamentals: First, we study the needs and interests of our prospect, and then we undertake to show him how our merchandise will satisfy those needs better than the merchandise of the competition.

It may seem a far cry when we talk about merchandising as applied to the problem of defeating the advance of collectivism, but the truth is that the only real difference is content.

* * *

YOU IN ORGANIZED medicine feel that you have a good product to sell. Your product is medical leadership and also a set of institutional relationships governing the practice of medicine and the relationships between doctor and patient.

You believe in this product, and you can point to the spectacular control of disease as achieved by medicine, and the rising curve of

longevity as an indication of the success of this medical leadership. You want people to have confidence in this medical leadership, and also you want them to believe in and support your point of view on how this great practice of medicine and the betterment of health should be organized.

In recent years competing suppliers have come into this medical marketplace, offering a bill of goods that has some attraction for the customer. These competing bills of goods are an anathema to medical men.

The principal competitor, of course, is government —or, more accurately, certain types of reformers who want government to organize medical care. The government would pay for medical care, and in the name of finance, control doctors.

When you try to organize a system of medical practice, under one aegis you begin to control that practice. Eventually the whole medical book will be controlled by this route—the training of doctors, the doctor-patient relationship, and even, I am sure, medical diagnosis and procedure. For once the state starts on an operation of this kind there is no stopping short of complete control.

One other competitor that has come into the marketplace recently is the labor union. The labor union is interested in collecting dues. It feels that it has the need to perform services for its members, particularly protective services.

People are concerned about job security and about health and the economic causes of illness. So, the union has a natural field in the area of health. If the union members look to the union for welfare as well as wages, quite obviously the union can better control its members.

* * *

THIS AMERICAN SOCIETY is a society of mobility. Do you know that 25 per cent of the people change their residence each year? We are intellectually mobile, as indicated by the rise of college graduates. We are ethnically mobile by the fact that the Antonellis marry the Jacowskis. We are socially mobile, as indicated by the fact that we move to suburbs. We are occupationally mobile, as indicated by the turnover of personnel. Is it any wonder in this wholly mobile society of ours that the status quo is yielding everywhere to new ideas and new ways of doing things?

There are two or three ways to react to this condition. One is to anticipate change, enhance it and lead it. Another is to kind of tag along, maybe remonstrating along the way. Yet another is to resist, to fight it off, to say it isn't so.

I think it must be agreed that the medical profession is remarkable in its ability to accept, anticipate and promote technological change.

In that area this profession is superb. On the other hand, we have to agree that we have been somewhat slower in our adaptation and anticipation of social change and meeting in this field the institutional challenges forced on us by our competitors.

The case of medical insurance is perhaps one good example of where we finally came around to the idea that perhaps we can live with it. However, I don't think the history of medical insurance would say that this profession has been altogether in the lead.

There are many problems connected with medical insurance that Blue Shield and Blue Cross and other techniques for insuring medical care provide. But nevertheless the fact is that the people wanted some better way of paying for medical care. They wanted an institutional change. The fact that they have gotten it in a very dramatic way—when you look at the growth of insurance systems—is very remarkable indeed.

Going on for just a moment, the competition from the socialists today is not frontal. The new attack is a creeping attack. It is on a specific objective: A new TVA; attempts to regulate—Forand bills. The strategy is to declare for the good life, to get on the side of the angels, to help the common man, protect against disaster, have better schools and health—in other words, big brother will take care of you.

Incidentally, government has some very good symbols—humanity, protection for the underdog, and so on, and some very bad symbols such as waste, red tape, politics and graft, and it particularly has a little thing called higher taxes which somehow people don't seem to like.

The medical profession has enormous prestige, tremendous and profound respect for the dedication of men, for their medical competence, for their past accomplishments, and for their hard work.

However, there are some clearly marked complaints.

There is the complaint of dollar-mindedness. Somehow this "lucre" point of view, as against service, influences the thinking of some people.

Also, interestingly enough, you have a thing like waiting. People go to a waiting room and wait and wait and wait, and they interpret this as an assault on their ego.

We also know there is a communications problem

(Continued on Page 398)

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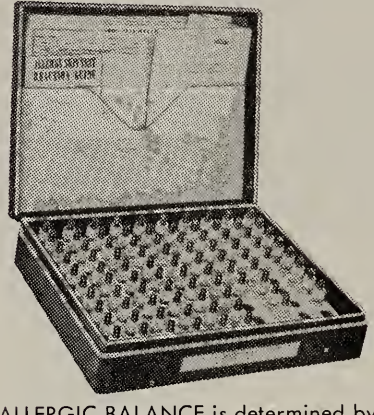

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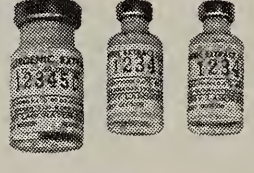

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(Continued from Page 396)

of the simple interpretation of the point of view of this profession.

So, there are three or four things that must be basic in our approach:

First, we must improve the service—cut down on complaints.

Second, we must continue to study the medical market and the needs and desires of the customers, and develop our answer to beat the competition.

There are two prime movers in this effort. The first must be the society, the national society, the state and local societies, to study the market, that set up programs, that conduct the over-all sales effort that an individual sales practitioner can't do. However, I don't believe there can ever be any compromise with the fact that good public relations begin at home.

Therefore, the doctor must be made to realize the effect of his behavior on the standing of the profession. He must have a point of view on the organization of medicine. He ought to be able to get up in the First Baptist Church or the high school civics class and discuss the question of the organization of medicine in terms of the good of the community. Finally, he also must be willing to work at it.

Doctors are a very powerful group, and they don't realize their strength if they organize. In order to exercise, fulfill and articulate this power, they first must meet the public's need, and then they have to do a lot of selling.

If doctors really like the idea of practicing in an area of freedom, they have got to assume some responsibility for preserving it.

"Good public relations is good performance which is understood and appreciated."—*California Medical Association Newsletter*, Vol. 4, No. 11.

* * *

"All of us who deal with communications must conceive of our task in the broadest possible terms of winning informed public support for our organization's objectives, policies, and practices. All that we do must contribute toward that goal. It makes no difference whether we are organizing a press conference to announce a new product, conducting the local press on a plant tour, or releasing the text of an Executive Office speech; we must always look beyond the immediate task to the broader objective."—S. C. Van Voorhis, General Electric, in speech before San Francisco Bay Area Chapter of Public Relations Society of America.

* * *

"Better health for all depends in large part on a well-informed public. Participation by physicians in enlightening the general public in matters of health is today an important part of the practice of medicine."—*Therapeutic Notes*, Vol. 66, No. 11.

M.D. Gets Smaller Share of Medical Care Dollar

As contrasted with twenty years ago, the American doctor of medicine is getting a smaller share of the medical care dollar today.

In 1938, physicians received 31 cents of the medical care dollar, the physician's share in 1958 was 24 cents—or 22.6 per cent less than twenty years ago.

This fact was revealed by the Economic Research Department of the American Medical Association, based on U. S. Department of Commerce data.

The breakdown of figures was based on a total of $16.4 billion spent for medical care in 1958—an average of $95 a person. This represents 5.6 per cent of the $293 billion spent by Americans during the year for all goods and services. The percentage of 1958 expenditures for medical care compares with 5.8 per cent for recreation and 5.3 per cent paid out for tobacco and alcoholic beverages.

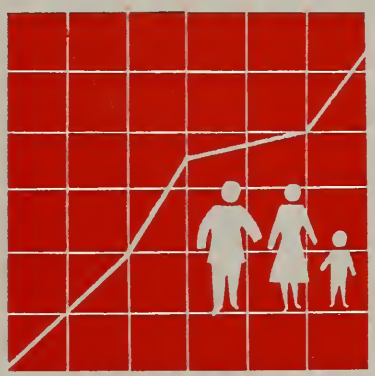
Of total consumer expenditures for medical care in 1958, hospitals claimed $4.3 billion, physicians $3.9 billion, drugs $3.3 billion, dentists $1.7 billion, health insurance $1.4 billion, and ophthalmic products and orthopedic supplies $1.1 billion.

The remaining $769 million went for all "other medical costs," including osteopathic services, private duty nurses, chiropractors, chiropodists, and other miscellaneous curative and healing services.

Items showing a proportionate increase include hospitals, which received 17 cents of the dollar in 1938 and 26 cents in 1958—a jump of 52.9 per cent. Hospitals attribute this rise to the expansion of hospital services and their greater utilization which has increased the number and variety of skilled personnel required.

"While more Americans are budgeting more of their income for medical care, and more emphasis is being placed on planning against future illness, the physician is receiving a smaller portion of the total money spent for medical care," points out the AMA.

In addition to the amount which physicians and dentists received as their share of the medical cost dollar, 22 cents went for drugs in 1938, but the figure dropped 9.1 per cent in 1958 to 20 cents. Purchases of appliances took another 7 cents of the 1958 dollar, while items in the "all other" categories claimed the remaining 5 cents.



Care for Aged Challenge Met by Blue Shield Plans

The nationwide Blue Shield Plans and their sponsoring medical societies have registered outstanding progress in implementing the American Medical Association resolution—passed in December 1958, calling for the development of medical care coverage for the aged by voluntary means reports John W. Castellucci, executive vice-president of the National Association of Blue Shield Plans.

About 98 per cent of the total United States Blue Shield enrollment is in areas where special aged programs are already being offered or are in stages of development, all within one year following passage of the AMA resolution.

"Only eight of the sixty-seven Blue Shield Plans located in the United States, with only two per cent of total Blue Shield membership, have no programs for senior citizens in the works at the present time," he noted.

Mr. Castellucci said that the remaining fifty-nine Plans either have special aged programs already being offered in their areas, or have programs in various stages of development. Specifically, the study conducted by the national Blue Shield association showed that thirty-two of the Plans, representing more than 50 per cent of total enrollment, have made available nongroup programs for persons over the age of sixty-five.

Mr. Castellucci indicated that in the development of programs for senior citizens, the Plans have followed three general lines of approach: (1) Developed new programs designed specifically for persons over sixty-five; (2) effected modifications in existing programs to accommodate enrollees over sixty-five; (3) eliminated age limits on existing nongroup programs offered to the general public who are not eligible to join through their place of employment.

"In offering these programs Blue Shield, of course, is fully cognizant of the splendid co-operation offered by sponsoring medical societies without whose efforts such significant progress could not have possibly been recorded in twelve short months," Mr. Castellucci concluded.

Urges Social Security Study

The broad social and economic impact of social security benefits and the method of financing them should be studied by the best qualified individuals in the United States before any further increases are considered, contends Ray M. Peterson of New York, vice-president and associate actuary of the Equitable Life Assurance Society.

"The system needs study in relation to capital needs, the capacity to save, demands upon our production and the role of private retirement plans," Mr. Peterson says. At the same time, he expressed concern over "a lack of legitimate and healthy anxiety as to the future successful operation of our social security financing method."

"How will the margin for personal savings be affected by compulsory social security contributions which are scheduled to increase by 80 per cent in ten years?" he asks. "How will the willingness to save, particularly for the purchase of life insurance be affected when the margin for savings is reduced and there is increased reliance on old age and survivor benefits from the Government insurance system?"

Sees '60 Big for Michigan

With the national outlook being one of increasing demand for automobiles and other hard goods by consumers and growing demand for industrial durable goods by businesses, it seems obvious that 1960 should be a year of expanding income, employment, production, and consumption in Michigan.

Business Week recently made a forecast of personal income by states for 1960. Its prediction was that total personal income in Michigan would increase by 8.2 per cent compared to a national gain of 6.4 per cent, and that per capita income in Michigan would increase by 6.3 per cent compared to a gain of 4.6 per cent for the nation.

If employment in 1960 increases at even half the rate predicted for personal income, unemployment should be reduced to a level about equal to that in 1956. It is even quite possible that the 1960 employment picture will be the best since 1955, the all-time bonanza year for the automobile industry.

—*The Michigan Economic Record*, Michigan State University College of Business and Public Service, January, 1960.

Medicine Costs Top Health Expenses

Bills for medicine and appliances are greater than doctor bills for Americans. The breakdown of the nation's health bills for 1958 compiled by the Social Security administration shows this:

Hospital bills amounted to 5.1 billion dollars for all Americans. Of this amount, 2.6 billion, more than half, was paid by insurance.

Doctor bills amounted to just under 4.3 billion dollars. Of this total, about 1.3 billion was paid by insurance.

Bills for medicine and appliances, such as eye glasses came to nearly 4.4 billion dollars exceeding doctor bills for the first time in history. Only a small fraction of this outlay was paid by insurance.

—*U.S. News and World Report*, Jan. 4, 1960

Rates Teacher Shortage Critical

We are rightly concerned that the shortage of teachers on medical faculties is fast developing to a crisis. The Council on Medical Education has re-

(Continued on Page 406)

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Teacher Shortage Critical

(Continued from Page 404)

ported that in 1957, there were 331 unfilled positions on the faculties of our medical schools. Last year, vacancies climbed to 619.

Not only does the crisis in medical education imperil the training of future physicians, but it may very well act as a brake on the advance of medical knowledge itself. Given these conditions, industry support of medical education is as much a necessity as it is a philanthropy.

From talk by John E. McKeen, President, Charles Pfizer & Company, before the Research and Development Section of the Pharmaceutical Manufacturers Association, White Sulphur Springs, W. Va., November 4, 1959.

Sixty-Four Per Cent to Specialize

Sixty-four per cent of 4,377 male graduates and 71% of 228 women graduates of U.S. medical schools in 1959 planned to practice a specialty.

Of the remaining male graduates, 27% favored general practice, 7% planned full-time teaching or research, and 2% were undecided. Among women, the percentages were, respectively, 16, 11 and 2.

AAMC Study: The figures are included in a study of medical education conducted by the Association of American Medical Colleges, Evanston, Illinois, under Dr. Lee Powers' direction.

The study examined aspects of medical education from construction costs to income and expenditures.

C of C Opposes Expansion of Social Security Program

Strong opposition has been voiced by the Los Angeles Chamber of Commerce to proposed federal legislation that would expand the social security program to include government-controlled medical care, according to Southern California Business.

President J. E. Fishburn, Jr., declared that under the Forand bill (HR 4700), a government-controlled health plan would bring to a halt the "excellent progress of private, voluntary efforts to provide adequate health insurance coverage to those needing it in all brackets. It would provide another setback to the ability of citizens to take care of their own problems."

He said the Chamber believes it would be highly undesirable from a fiscal standpoint to make liberalizing changes in the social security system based on the present faulty foundation.

M.D.'s Study Economics

A group of Springfield, Missouri, physicians has been meeting at 7 a.m. once a week to learn the practical side of politics. Their aim is to become effective citizens taking part in government.

Their nine-week Action Course in Practical Politics was prepared by the U.S. Chamber of Commerce. Similar courses are being conducted in many U.S. cities by industries, chamber of commerce, labor unions, and other groups.

* * *

Predicts Prepaid Growth

Prepaid health insurance will pay two-thirds of the medical bills within the next five to ten years, predicted Jerome Pollack, veteran health and welfare negotiator for the United Auto Workers, AFL-CIO.

He spoke at the recent fifteenth annual meeting of the Western Conference of Prepaid Medical Service Plans held in Honolulu, Hawaii.

Pollack claimed there are three pressing needs in the insurance field:

—More comprehensive coverage.
—More lay representation on prepayment boards.
—More economic controls by doctors.

—*AMA News*, December 28, 1959

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BONADOXIN—DROPS and Tablets—are also effective in infant colic, motion sickness, labyrinthitis, Meniere's syndrome and for relieving the nausea and vomiting associated with anesthesia and radiation sickness. See PDR p. 795.

1. Projection from Vital Statistics, U.S. Government Dept. HEW, Vol. 48, No. 14, 1958, p. 398.
2. Modell, W.: Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347.

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in the Therapy of

ACUTE PHARYNGITIS, ESPECIALLY WITH LYMPHADENITIS

Ideally, selection of the proper antibiotic for treatment of acute pharyngitis should await the laboratory reports on the susceptibility of the infecting bacteria. But the busy practitioner who sees many patients a day during the upper respiratory infection season may sometimes find it difficult to avoid the empirical choice of an antibiotic. Unfortunately, this practice may sometimes result in therapeutic failure.

No matter what the pressure of the immediate situation, it is worthwhile to consider taking a bacterial specimen from the infected pharynx for culture and sensitivity studies before starting treatment. Thus, a rational basis will be provided for changing the antibiotic should the first choice prove ineffective.

Which Antibiotic?

All other things being equal, the drug of choice is the one to which the pathogen is most susceptible. But if the exigencies of the situation force the physician to a prompt use of antibiotic, a broad-spectrum preparation that produces immediate high blood levels (e.g., tetracycline phosphate complex, TETREX) probably has the best chance of controlling the pathogen.

Later, the laboratory report frequently may indicate that any one of several antibiotic agents would be equally effective against the particular microorganism in question. In such a case other factors such as frequency and severity of side effects, sensitizing potential and toxicity should be considered.

If the acute pharyngitis in question should be due to gram-negative Klebsiella[1], penicillin will be of no value, nor will erythromycin be effective. However, this organism is susceptible to tetracycline. If the pathogen should turn out to be gram-positive Streptococcus or Staphylococcus, then penicillin, erythromycin, and tetracycline may all be effective against it.

Penicillin, however, in addition to having a limited spectrum, also causes many minor and some serious sensitivity reactions. In a recent survey[2] it was found that penicillin produced severe skin reactions. But most important was the observation that anaphylactic shock, with a fatality rate of about 9 per cent, was the most frequent serious reaction. Such severe reactions are almost always associated with parenteral administration.

The tetracyclines (e.g., TETREX) have the advantages of a broad range of antimicrobial activity and low toxicity. And in addition, the physician does not have to trouble himself or his patients with repeated blood studies when he prescribes TETREX. Minor reactions such as gastric upsets or mild skin rashes occur occasionally. The most serious side effects are staphylococcal and monilial overgrowth, but these are rare and can be adequately controlled.

Some Microorganisms Susceptible[a] *to Tetracycline* (TETREX)[b]

Streptococcus; Staphylococcus; Pneumococcus; Gonococcus; Meningococcus; *C. diphtheriae; B. anthracis; E. coli;* Proteus; *A. aerogenes; K. pneumoniae;* Shigella; Brucella; *P. tularensis; H. influenzae; T. pallidum;* Rickettsiae; Viruses of psittacosis and ornithosis, lymphogranuloma inguinale, primary atypical pneumonia; *E. histolytica; D. granulomatosis.*

[a] Some strains are not susceptible.

[b] Table adapted from Goodman, L. S., and Gilman, A.: The Pharmaceutical Basis of Therapeutics, 2nd edition, New York, The Macmillan Co., 1956, pp. 1322-1323.

High blood, body fluid, and tissue levels of active drug are quickly attained when the new phosphate preparation of tetracycline (TETREX) is used.

The semisynthetic tetracyclines have been in constant use since they were introduced in 1952. They have been proved clinically and have established themselves as safe, effective, and valuable antibiotic agents. But the final decision, the choice of agent, and the control of therapy must remain where it has always been, in the hands of the individual physician.

References: 1. Zinsser, H.: A Textbook of Bacteriology, 11th edition, New York, Appleton-Century-Crofts, 1957, p. 409. 2. Welch, H.: Lewis, C. H.; Weinstein, H. I., and Boeckman, B. B.: Severe reactions to antibiotics. A nationwide survey. Antibiotic Med. & Clin. Ther. 4:800 (December) 1957.

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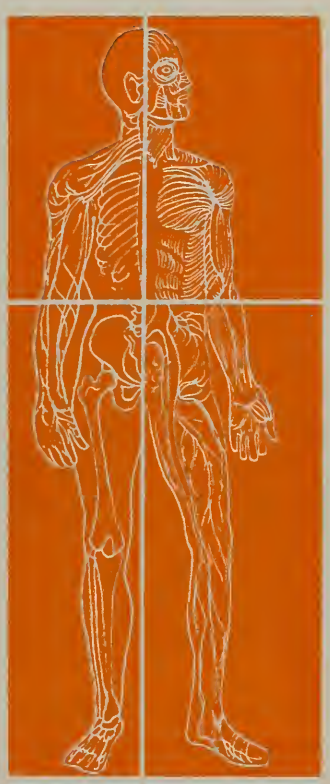
Antibiotics—Their Use and Abuse

Perrin H. Long, M.D., F.R.C.P.
Brooklyn, New York



IF THE EXPERIENCE of the reader has been anything like that of the author, you have been under constant bombardment by mail, and by pharmaceutical manufacturers' representatives relative to the indications for use of, the pharmacology of, and the clinical results with, the various brands of antibiotics.

However, there exists, a relatively new antibiotic, the generic name of which is kanamycin (Kantrex®), which has demonstrated its value in the treatment of staphylococcal infections, of certain infections produced by members of the Salmonella group, and of infections produced by strains of *Proteus mirabilis*. This compound is not well absorbed from the gastrointestinal tract and hence has to be given by the intramuscular route. Possibly, strains of staphylococci may become resistant to this antibiotic in the future. The fact remains, however, that at the present time, the chances seem to be favorable that kanamycin will be more likely than other varieties of antibacterial agents to produce the desired therapeutic effects in infections produced by "resistant" strains of staphylococci. In view of the serious problem created by staphylococcal infections today, this is a matter of considerable importance.

When one considers the abuses of antibiotics, one can say without fear of contradiction, that the misuse of penicillin by physicians produces one of the major problems in iatrogenic diseases today. In addition to the increasing number of penicillin reactions which are occurring following the careless and thoughtless use of penicillin for the treatment or prophylaxis of infections (in which this antibiotic has been repeatedly demonstrated to be of no value), more than 100 individuals will die this year of anaphylactic reactions following the administration of penicillin. *As far as I am concerned, I can see little or no excuse for most of these deaths.*

Because of the increasing frequency of serious reactions, or deaths, from the administration of penicillin, I would recommend most strongly that physicians adopt the following precautions to protect their patients from reactions and themselves from punitive actions.

Presented at the 93rd Annual Session of the Michigan State Medical Society, Detroit, October 3, 1958.

From the Departments of Medicine, The Kings County Medical Center, and The College of Medicine, State University of New York, New York, N. Y.

1. Do not administer penicillin to individuals who have viral infections of the respiratory tract, that is the common cold, influenza, grippe, viral sore throats, viral pneumonia, et cetera.
2. Be very cautious in administering penicillin to patients who have, or have had asthma, hay fever, allergic eczema, and other allergic phenomena.
3. Before administering penicillin in any form, ask the patient if he or she has ever had penicillin, and if so, whether a reaction to penicillin occurred. If the answer is "yes," it is better to administer another antibiotic.
4. If there is any question about administering penicillin, then it is better not to give it.

If these injunctions were followed, it is likely that deaths from reactions to penicillin would be more than halved and the number of non-fatal reactions would be decreased.

I don't know how many of the members of the audience realize it, but as a result of country-wide surveys and tests conducted by the Food and Drug Administration, it appears that from 5 to 10 per cent of the milk sold on any day in this country, contains detectable amounts of penicillin. This occurs because it is the custom of dairymen to treat mastitis in cows by the injection of penicillin ointment into the infected quarters of the cow's udder, and then when the milk appears "clear" it is marketed, despite the fact that it contains penicillin. Just what role the ingestion of milk containing penicillin plays in sensitizing the population of this country to penicillin, is unknown at the present time. However, it would appear to be a potential hazard, and milk containing penicillin has been known to produce serious reactions in individuals who were highly sensitive to this antibiotic.

The tetracyclines, erythromycin, and carbomycin have produced very little in the way of toxic reactions. Anaphylactic episodes have not been reported, and instances of dermatitis have really been very rare. While harm to the patient from a superinfection with molds or bacteria has occurred when a member of the above-named group of antibiotics has been used, such an occurrence can not be classed as a toxic reaction, but rather one due to the anti-bacterial effects of the antibiotic.

Chlortetracycline (Aureomycin) is being used to protect dressed poultry from deterioration. This process presents no health problem because chlortetracycline is very sensitive to heat and is destroyed in the cooking of the poultry. There is, however, the outside chance that it might produce a contact dermatitis in handlers of dressed poultry.

It is a good thing for the physician to remember that Polymyxin B, Bacitracin, or Neomycin may produce renal damage and because of this, the urine of patients who are receiving one of these antibiotics should be carefully checked each day. The injunctions relative to the proper and careful use of chloramphenicol still hold. It is a valuable antibiotic which should be used when it is the antibacterial agent of choice. Streptomycin and di-hydrostreptomycin are still producing reactions of sensitivity, deafness, and vertigo. Serious damage can generally be avoided if care is taken to check frequently for the early occurrence of damage to the eighth nerve.

In conclusion, I would like to make a plea for tightening up on aseptic procedures in operating and delivery rooms, and in hospital wards. The efficacy of the sulfonamides and antibiotics in the treatment of many infections lulled the medical profession into a state of euphoria, characterized often by a flagrant disregard for the principles of aseptic technique. The net result has been an increasing number of intra-hospital infections. *These can be stopped and must be stopped.*

451 Clarkson Avenue
Brooklyn 3, New York

THE AUTHOR

Perrin H. Long, M.D.

Reports on Lung Cancer Study

Community air pollution has no known effect on lung cancer, says the director of The University of Michigan's Institute of Industrial Health. Seward Miller, M.D., declares: "There is as yet no substantial statistical, epidemiological or research evidence that breathing polluted air in our communities causes lung cancer."

Studies have identified one substance in motor vehicle exhausts called "benzpyrene." Although it can produce skin cancer in mice, high concentrations of benzpyrene have failed to produce lung cancer even during extended periods of exposure, he says. Cites two major problems in air pollution: the "acute" form of pollution, which produced deadly blankets of smog at Denora and London, and the "chronic" form which most communities experience throughout the year.

"We may never experience another episode of acute community air pollution serious enough to cause severe illness and death," Doctor Miller said. "Today our concern centers on the adverse effects of breathing slightly polluted air over a long period of years."

Seminar on Graduate Medical Education

Welcome

Milton R. Weed, M.D.
President, Wayne County Medical Society
Detroit, Michigan

ON BEHALF of the Wayne County Medical Society, it is my privilege to welcome you to this Seminar on Graduate Medical Education sponsored by the Greater Detroit Hospital Association. It is particularly fitting that this meeting be held here, for during the past 110 years this Society has played a leading role in medical education in this community. It has contributed to postgraduate medical education in time, treasure, sweat and sometimes in hot air.

During five score and ten years, medical education has changed profoundly. During the past twenty years, we have witnessed social and economic changes which have created greater problems than we have ever known. Our problems today are the reason for this conference. In these twenty years, we have seen change from a surplus to a shortage of interns and residents available for training; with prepaid medical insurance we have watched the gradual disappearance of charity patients who were used for training purposes and increase in private patients; and, we have felt the tightening grip of the predication device and have witnessed the confused emergence of directors of medical education. Some administrators seemingly tolerate these individuals because they set up paper programs which are acceptable to the accrediting bodies, thereby making available a cheap supply of labor. We have also seen the AMA House of Delegates establish the popularity of the training program as one of the criteria for its approval. In general, despite some blundering, there has been some progress, and meetings of this type should go far in resolving current problems.

Seminar held in the Wayne County Medical Society Headquarters in Detroit, under auspices of the Greater Detroit Area Hospital Council, May 13, 1959.

Introduction

H. C. Saltzstein, M.D.
Harper Hospital
Detroit, Michigan

THIS MEETING is not a happenstance. In April, 1958, a meeting was held under the aegis of the Pennsylvania State Medical Society to discuss internships and attendant problems. A note in its medical journal said it was the first meeting to discuss these problems in sixty years. As the story goes, one hospital in Pittsburgh offered a year's membership in a country club to attract interns. I have heard that this has been done elsewhere.

In thinking over these problems, we thought there might be many mutual interests in these changing situations and possibly cogent reasons for mutual cooperation in education programs. As Dr. Weed mentioned, medical education today is totally changed.

Osler is dead, as is Will Mayo. The day of great personages in medicine is gone. We are subject to many forms of pressure from society in medical education. Population shifts to the suburbs, Blue Cross, married house staff—all have wrought great changes.

We took the idea to Mr. Cousin, Executive Director of the Greater Detroit Area Hospital Council. To his inquiry submitted to all member hospitals, thirty-seven replied that they were interested in a meeting to discuss these problems. A small committee representing Grace (Dr. George McBryan), Harper (Dr. Harry C. Saltzstein), Receiving (Dr. George D. Clifford) and Henry Ford (Dr. Ted Howell) Hospitals in Detroit; University of Michigan Hospital in Ann Arbor (Drs. Harry Towsley and Roger Nelson); and the Hospital Council (Mr. Jacques Cousin) met several times. Then, a questionnaire was submitted to the hospitals asking which topics would be of greatest interest. From the replies the agenda for this meeting was developed.

The Internship

Effects of Current Trends in Graduate Medical Education

John C. Nunemaker, M.D.
Associate Secretary Council on Medical Education and Hospitals American Medical Association
Chicago, Illinois

Current Trends in Medical Education

A BASIC point of reference is the Report of the Advisory Committee on Internships to the Council which was published in THE JOURNAL February 2, 1953. It is not surprising that Dr. Leonard, who is here today, was a member of that committee. This committee was chaired by Dr. Victor Johnson of the Mayo Foundation. Though published in 1953, every word is as current today as it was then and deserves very careful reading. As a result of this report, the *Essentials of an Approved Internship* was rewritten and some requirements were changed. I wish to mention eight items briefly.

1. *The Intern Shortage.*—I have before me the Directory of Approved Internships and Residencies published October 4, 1958, in THE JOURNAL, and an editorial from that issue entitled "No Single Panacea for the Internship" by Dr. Leland McKittrick, now chairman of the Council on Medical Education and Hospitals. A few words in this editorial I want to read:

"Nevertheless these hospitals represent a very small proportion of all the hospitals in this country, and the number seeking interns is increasing. It can be seen, therefore, that the number of students graduating annually is not sufficient to supply interns for all hospitals seeking them, far less to meet the demand if all general hospitals should desire to use them. This, meanwhile, is one of the bases for the claim that there is a dearth of physicians. It can be readily seen, however, that sufficient interns could not be provided for all hospitals even if the annual number of graduates exceeded by several times the normal output for this country. The intern problem must be solved in some other way. Many hospitals, even now, are employing physicians as residents or house officers at increasing salaries or with gradually increasing privileges in the way of practice. Interns, also, should be relieved of much of the work required of them which should be done by orderlies employed for that purpose. History writing and records, which have depended largely on intern services, can be kept up by staff physicians through the use of stenographers. It is certain that the increased demand for interns does not justify either the lowering of educational standards or the multiplication of medical schools."

The striking thing about what I have read is that it was published in 1920, only six years after the AMA began publishing lists of internships. I expect the concern expressed then and today will continue. There is "overage" of approved positions as well as of desire for interns; but, there will always be "shortage" of interns as well as of yachts.

2. *Effect of Congressional Action.*—The United States Information and Educational Exchange Act of 1948 became effective July 1, 1949, and facilitated the

foreign graduate coming to our shores. A new chart is to be published this fall which will show the fantastic postwar growth of graduate training programs. Superimposed on it will be the participation of the foreign graduate. Certainly the foreign graduate is not responsible, but he has been used and abused as a result of the great increase in training programs. It was this Act of 1948 that made it possible for the foreign graduates to come to this country easily.

As far as internships go, of about 5,000 vacancies for interns, 2,000 are filled by foreign graduates. I brought a letter from Dr. Dean Smiley, Executive Director of the Educational Council for Foreign Medical Graduates, with a few of the latest figures on foreign physicians in the United States. There are 7,622 foreign medical graduates with exchange visitor visas working in U. S. hospitals as interns and residents. About 1,000 more serving hospitals have immigrant visas. It appears that at least a third of the foreign trained physicians are coming to this country each year and of 7,622 working in hospitals 1,129 have passed one of three ECFMG examinations and 534 have near passed, receiving temporary certificates good for two years. July 1, 1960, it is expected that all foreign medical school graduates starting to serve as interns or residents in U. S. hospitals will have been certified by the ECFMG or by the State Board of Medical Examiners of the state in which their hospital is located. We are certain that while this is going to upgrade the quality of men coming here from foreign schools, it is very likely to reduce the number available for a time.

3. *Advisory Committee Report on Internships.*—here are some of the items. The future of the internship—is there a place for it? The conclusion was that there certainly is a place for a proper internship. Basic principles of a sound educational program were spelled out for a rotating internship, and I would like to read them:

> "By rotating internship we mean one so planned as to provide: (1) continuity of observation of individual patients, (2) continuity of exposure to individual clinicians selected for their devotion to teaching, (3) clinical responsibilities graduated according to the increasing experience of the intern."

They rewrote the *Essentials,* increasing the hospital requirements to at least 150 beds and 5,000 annual admissions. They discussed the intern-patient ratio and the intern quota and recommended that hospitals be disapproved if they could not obtain two-thirds of their quota two successive years. The House of Delegates would not accept that, but we do have the rule under which a hospital may be disapproved if, for two successive years, it does not obtain a quarter of its quota. This does not mean automatic disapproval. The Council must act on every one and there may be valid reasons why a hospital's quota has not been filled.

Of the essential elements in an intern training program, first is well qualified staff, with ability to teach. The essential nature of formal teaching rounds, scheduled and conducted regularly cannot be overemphasized. It is an absolute requirement to have outpatient department experience either on an intramural or an affiliated basis. Though a hospital has a large and busy emergency room, it is likely not to receive approval for an intern program unless it can provide outpatient department experience with regularly scheduled clinics. Laboratory work by the house staff is emphasized, as well as surgical training in preoperative and postoperative care, not just operating room training "on the end of a hook" which too often is the only surgical training an intern gets. The place of psychiatry is throughout the program and not merely a short assignment in a ward for psychotic patients. The major services are sometimes deficient in beds, frequently in the pediatric service, and therefore affiliated relationships must be developed. The general character of salary and maintenance now paid by all hospitals involved in training programs is also discussed.

The private patient problem is thoroughly discussed. A frequent reason for critical evaluation of a program is failure of a given training program to use private patients. I would like to read again from this report because so many doctors have said they cannot use private patients in training or that their staff won't. "In our opinion, from the internship standpoint it makes no difference whatsoever whether the patients are in rooms with baths or wards, or how the hospital or doctor's bills are paid if all of the following things are met: 1. That the patients on private service are as sick and present the same range of disease as those on public wards and that comparable opportunity for follow-up exists. 2. That the attending staff value breadth of viewpoint that comes from time spent in teaching and do not treat teaching as an unwelcome burden inherent in staff privileges. 3. That the teaching attending staff are sufficiently secure in the private doctor-patient relationship to permit house staff responsibility comparable to public wards and understand in practice the distinction between indoctrination

and true learning. 4. That the same critical standards of diagnosis and treatment apply on private and public ward patients."

4. *The Internship Review Committee* was created in 1954 and its representation was made as broad as possible: First, representatives of the Council itself; second, the Federation of State Medical Boards; third, the American Hospital Association; fourth, the American Academy of General Practice; and fifth, the Association of American Medical Colleges. All these major organizations are concerned with the internship and it is possible not only to review the applications and survey reports submitted by our field staff and to make recommendations for or against approval, but also to recommend to our Council changes in policy or changes in standards. In other words, this committee has a continuing responsibility, as did the Advisory Committee on Internships, against a background of continual review of programs.

5. *The Council Staff Surveying and Evaluating Procedures.*—Many people do not realize that, in addition to myself and two other physicians in our office concerned solely with graduate training programs, we have five full time physicians in the field. Internships have increased since the war only by about 50 per cent—from 8,000 to 12,000. Residencies have increased from 5,000 to over 31,000. This has been fantastic and we are trying to evaluate these programs with much the same machinery we had ten years ago. We must retool if we are going to do this right and our present concern is whether we can attract high quality men to our field staff who are willing to work on a part time basis but who under no conditions would take the traveling job full time. Moreover, a number of review committees in the specialties are considering whether panels of consultants should be nominated who would work quite unrelated to the review committees. They could serve hospitals, on demand, by considering and advising whether they can have a program or what is wrong with an existing program.

6. *General Practice Programs.*—The Advisory Committee clearly defined the rotating internship as the first year of a minimal training period of two years prior to practice. It did not enter the area of general practice residencies but members felt that though most internships are twelve months long, a man going into general practice should have at least one more year. A committee organized by direction of the House of Delegates to study the best background preparation for general practice is reporting in June on a new family practice program. It will be somewhat different from the general practice program and will use the word "family" more than it will use "general." Internal medicine and pediatrics are the basis for this program, with training in the management of emergencies and of trauma with obstetrics as an elective.

7. *Medical School Curriculum.*—There is talk of condensing medical training from eight years to six. Also, the internship has been merged with the clerkship in the medical school training in several places. The Council questions that this is the best type of training for the fourth year student. Medical school training certainly is concerned more with fundamentals and less with facts and techniques than formerly. The effects of clerkships on the conduct of internships is being actively investigated. Experience with research methodology is now available in some schools but many practitioners have no idea why medical students are exposed to research. They do not appreciate the beneficial effects an understanding of research philosophy and correct application of scientific method can have on the private practice of an individual.

8. *An Intramural Approved Program Versus an Integrated Approved Program Involving More Than One Hospital.*—It is becoming more difficult for even some university hospitals to maintain approval for a completely intramural program. The intrusion of private patients in the public wards, a different kind of outpatient, the absence of outpatient departments in some hospitals, the need for special facilities in rehabilitation, chronic disease, *et cetera*—all of these are causing institutions to combine their facilities for one top-notch program. The only requirement for this type of program is continuity. The number of buildings does not matter if it is the same program, the same staff, and if it is continuous. The result is stronger programs in individual communities and less of the competition between hospitals that has become very unwholesome in some instances.

Q.—If a given hospital does not have one-fourth of its quota of interns, can foreign graduates make up this difference?

A.—Yes. There is no discrimination between foreign and state graduates. They do not have to come through the matching plan.

Q.—Will you comment upon the substitution of a preceptorship type of education perhaps supervised by the affiliated medical schools as to its quality and qualifications?

A.—Most review committees view with concern the preceptorship idea. There still seems to be need for the preceptorship, but few hospitals seem able to organize a sound one. Many program directors have visited our office to ask whether it would be acceptable if the hospital staff were to use facilities in the hospital for following up their previously hospitalized patients, in association with the house staff. We feel this would be more desirable than having the house staff vibrate around town trying to follow patients in the offices of private physicians. If an intern only sees a patient during the hospitalized part of the illness, then he certainly does not learn the course of disease. He does not get "follow-up" training, particularly with surgical patients; furthermore, he has no opportunity to really learn the diagnosis and care of patients over a period of time on an ambulatory basis without ever bringing them into the hospital. We must try and simulate the conditions of office practice when a hospital has no outpatient department.

Q.—Integration between hospitals in the education program?

A.—It is due to the changing nature of the patient load and partly to the entry of the Federal hospitals into the training picture. With training programs at Veterans Hospitals supervised by medical school faculties, it became perfectly logical to try and merge those programs into one program under two roofs. To remedy the deficiencies, the institutions had to get together so that when one did not have the clinical material needed for training the other could supplement it.

Q.—How extensive is it now?

A.—It is not limited to university hospitals, but it is growing every year. This sort of affiliating has been going on for many years but has not been so identified in the Directory.

The Role of a Director of Medical Education

John C. Leonard, M.D.
Director Medical Education, Hartford Hospital
Hartford, Connecticut

THE WORK of a director of medical education—or the director of intern or house staff education, or whatever he may be called—is not simple. Actually, to attempt a brief definition I would say that his task is to organize, coordinate and supervise the educational program of the hospital in cooperation with and assisted by the intern or house staff committee, the hospital staff and the hospital administration. This obviously cannot be a solo job if it is to be done properly.

For any hospital program to function effectively the viewpoint of the house staff, the "satisfied customer," so properly mentioned by Dr. Nunemaker, must be kept in mind. These are the people who must be relied upon to sell programs to third- and fourth-year medical students in their schools. Therefore, it is word-of-mouth advertising from satisfied interns and residents that make the difference between success and failure in training programs.

The report forms sent to interns, often to residents, by the dean's office of the medical school are returned and kept in a permanent file for inspection by third- and fourth-year students in that school. If these reports are good, we have frequent visitors from the schools; if they are poor, we have few or no visitors. We believe in this system but wish that more schools would also ask for reports about the work of interns and residents who are their graduates.

For an educational program to function effectively, there must and will be improvement of patient care. We hear much talk about a house staff that is really being educated and trained, or is being used as "hands and feet." Our attitude as hospital staff toward this is another strong determining point in whether we will have intern and resident applicants.

All of us who have taught, whether in the medical school, the community hospital or university hospital, recognize that the teacher learns the most. The attending staff man who takes time to really teach, deliberately, carefully and enthusiastically, gets the greatest amount of stimulation. The corollary is the stimulation he passes on to grateful youngsters who recognize those who are truly interested in teaching and those to whom it is a painful duty.

It is often overlooked that for a program of medical education to be successful it must have participation at all levels of the house staff and the attending staff. The interns, assistant residents, residents and

the junior and senior attending men should take part actively in all discussions and in each clinic, formal or informal. One thing our hospital finally has been able to do is to discard seniority as the determinant of chiefs of services and promotion along various department levels. Initial appointments to the staff as well as annual reviews for promotion are based, by bylaw, upon the individual attending physician's interest and devotion to the teaching and research programs of the hospital. Personally, I think this is the strongest bylaw we have ever been able to have adopted by our staff.

What does a program of this kind mean to the hospital administration and its board of directors? These are the people, generally, who must foot the bill. We have found, across the country, that the cost of intern and resident training program is two to five per cent of the hospital's budget. Our present budget is two and a half per cent; we are still working to increase it. The late Dr. Alan Gregg stated that ten per cent of a total hospital budget was not an excessive figure to devote to house staff and postgraduate training because the actual welfare of patients depends entirely upon how actively the attending staff, stimulated by teaching house staff, keep up with their continuing medical education.

Should a director of medical education be full or part time? In these days physicians are busier than ever, not only with their own professional work, but also with greater segments of their time being taken by civic responsibilities. If the hospital is large enough, the hospital and its staff must decide whether to have someone who will try to carry on the organization, supervision and coordination of the program, or whether a highly devoted house staff committee or interns committee still can do this. In New England, we have now a fair number of directors of medical education who have this responsibility in two or three hospitals.

Should the director of medical education be an internist, a pathologist or a surgeon, or should he be a respected, retired member of the staff who won't meet much opposition, or should he be a youngster reasonably fresh after residency training program with lots of vim and vigor? Again, this must be decided by the hospital and its attending staff. Obviously, no matter how good a teacher he is, or how well-rounded, an internist cannot teach surgery, or pediatrics, or obstetrics; therefore, he must have the constant cooperation of his house staff committee, preferably with an excellent liaison representative from each staff department. Actually, the director of medical education must do most of his teaching by precept and example. My opinion regarding the primary requirement in a director of medical education is that he should be a catalyst. I like this definition of a catalyst: "a catalyst is like a shotgun at a wedding; it doesn't necessarily take an intimate part in the procedure, but it certainly does speed up the action."

The position of the D.M.E. on the attending staff must depend upon his age, experience and ability. Certainly we are not going to attract good people to this field if they are given inferior positions on professional staffs. The director should be chief of his department of medical education, with voting status equal to that of the chiefs of the departments. He must be given adequate authority by the professional staff, the administration and the board of directors. I have a strong feeling that the director of medical education should be a member of the staff executive committee. It is not essential that he have a vote, but he should at least sit in the meetings so that some situations which later would become mountains of trouble can be nipped in the bud. I think also, to make his work effective he should be a member of the administrative group or management committee.

I think something should be said about what a director of medical education should *not* be. He should certainly not be just a procurement officer. If his only task is securing interns and residents, and if that task is completely shrugged off onto his shoulders by the professional staff, failure is certain. I think the best directors of medical education do their part on the wards. If they are internists, they should make ward rounds on medicine; if they are surgeons, they should make ward rounds on surgery, pathology and radiology. As long ago as 1942 our chief of pathology was asked to go on ward rounds once a week, pick holes and flaws, take part in discussion and ask embarrassing questions about excessive demands for laboratory work that exhibited the non-thinking type of education that sometimes develops from today's highly organized laboratory-work in medical schools. The director of medical education must not be just a clerk and bookkeeper.

Likewise, the director of medical education should not be merely the policeman upon whom the attending staff shrugs off all embarrassing and punitive duties. He must not be known just as a "company man," an administrator's boy. If this happens, he loses all standing with the professional staff and one of the greatest difficulties in being a director of medical education is keeping the attending staff from being

suspicious because he is part of the administration and keeping the administration from being suspicious because he is part of the staff.

A director of medical education must be tactful. He must be willing to take the blame for things for which he is not entirely at fault. Diplomacy, patience and willingness to accept hard tasks are necessary in this work. A director of medical education will not have time for things all of us here would feel he should be doing if he must be the person responsible for student and graduate nurse education or even education in the numerous paramedical fields of today.

Panel Discussion

Objectives of an Intern-Resident Program—Education or Service

Moderator: Harry A. Towsley, M.D.
Associate Director, University of Michigan,
Department of Post Graduate Medicine
Ann Arbor, Michigan

Q.—Where does service end and education begin, or vice versa, in an intern-resident program?

A.—Dr. Nunemaker—I hate to hear people say that service and education are mutually interdependent. I prefer to say that they are one and the same. In the Veterans Administration, research was an intimate part of every graduate medical training program environment. It is a custom to say that these are a tripod, one depending on the other, but I prefer to call them a trinity because research, education and service cannot be separated. The degree to which these three are one, the brightness of the flame with which they burn, is the measure of the quality of medical care.

Dr. Leonard—I know a lot of the things that we were expected to do are today considered by medical school graduates as "scut work." I think it is wrong to expect interns or residents to occupy their time in the hospitals doing what can be done by technicians trained for six to twelve months. But that, too, can be carried to an extreme because some medical students have no knowledge other than the theory of hematology and clinical pathology because they have not been responsible for urinanalyses, blood counts, et cetera. Under our supervision, and not as an excuse for their doing work that we do not want to be bothered with, they can learn a lot. Today's graduate can tell you, right on the nose by prediction, what the lactic acid dehydrogenase is going to be, but he will look at you blankly if you ask him if a gastric analysis has been done or if such a simple thing as a test for occult blood in the stool has been done at the original rectal examination.

I, too, do not think it is possible to separate medical training and service to patients. We get into trouble when we shrug off all the work that slightly trained technicians could do onto people who really should be trained in things that are increasingly difficult in this rapidly growing field of medicine.

Q.—Education versus Service in Residency Training? (continued)

A.—Dr. Bates—Far be it from me to alter the philosophy already expressed by the experts. One issue about the time element: taking away the responsibility for a certain amount of scut work has created idle time which has been interpreted as implying a time limit for duty. I think there is something sinister in introducing the element of the time clock in the educational process. The new physician must learn that service must continue around the clock, seven nights a week.

Dr. Leonard—A resident cannot be trained on a nine-to-five basis. It was most disturbing to me when I was told by a member of the American Board of one of the surgical sub-specialties that they were increasing their requirements from three to four years because they could not keep residents in the hospitals long enough during the day and at night to give them adequate patient contact and training. To me this is utterly ridiculous. You must see patients daily, constantly and regularly, and follow them throughout, before you actually begin to know anything about medicine. A criticism formerly directed at Veterans Administration hospitals was that too many residents were on duty from nine to five, with perhaps only one night per week on duty and one week-end of seven or eight. Dr. William Middleton reminded others that they had only to look at university and non-university hospitals to find that this is widespread. Unfortunately, this is true. It is a product of the times,

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Members of the Panel included Gaylord S. Bates, M.D., Chief of Staff, Receiving Hospital; Roger W. DeBusk, M.D., Director, Grace Hospital; George O. Clifford, M.D., Assistant Professor of Medicine, Wayne State University, College of Medicine; John C. Leonard, M.D., Hartford, Connecticut; John E. Nunemaker, M.D., American Medical Association, Chicago, Illinois.

part of the socio-economic revolution. Those of us who are dedicated to the principles of medical education must make this part of our constant battle. I feel, and one of our residency review boards is taking this stand, that there must be a minimum of not less than alternate nights and alternate weekends of duty.

Dr. Nunemaker—Let me read from the report of the committee of which Dr. Leonard was a part. "We see no intrinsic value at all in the recently past era in which in certain hospitals an intern was lucky to get out every six weeks for a hair cut and if married, by hospital rules, had to live beyond a radius of 100 miles. But we find ourselves in lack of sympathy with the nine-to-five attitude prevalent in most house staffs since World War II. The important phenomena of disease simply do not occur on a nine-to-five basis, and they do not follow a regular schedule having a night off. If a schedule set up for convenience is interpreted as an immovable law and independent of the patient's needs, the internship fails to provide the vital aspects of future medical life. If there is general abuse of the present buyer's market for the intern and if the nine to five attitude becomes more prevalent, it is not beyond our conception that many hospitals with fine educational facilities and a busy attending staff will find it easier to get along without them (interns)."

Dr. Clifford—I agree with everything that has been said. Forty years ago the student had little contact with the patient but now he has contact on a fifty minute basis so that he can get to his next assignment. As a result he wants responsibility but he doesn't want to accept it for the patient. Perhaps we should start talking to the deans to see if there is not some way to give greater responsibility to the man while he is an undergraduate. The medical school has stolen the glamour of the new patient from the internship, yet it has not accepted the responsibility for the care of the patient in this student-patient contact.

Dr. Nunemaker—The majority of medical school departments at the clinical level are trying to arrange for the student to have nights and weekends on call so that he is responsible just as an intern would be, all the way through. This is not true of every department of every medical school, but it is true of some departments in most medical schools.

Dr. Leonard—There are some hospitals with excellent educational programs where, if the intern is going to do the history and physical he is going to do it tonight because he is sure that tomorrow morning the patient is going to be discussed. In a hospital where bedside teaching is very poor, the boys think that no questions will be asked and why bother writing it up tonight. I think if the staff really works the boys will spend much more than forty hours per week working.

Dr. Clifford—"Scut work" is a phrase we would do well to abolish. We have spent much time trying to teach medical students that the tools of his trade are the history, the physical examination and appropriate laboratory work. If we permit this to be defined as scut work and allow externs to do it; if physicians are too busy to complete their records; and, if we tell the nurses to take the blood pressures and call the doctor if there is a change, we make very serious errors. A physician does not just take a blood pressure—he evaluates a patient at the same time. When students look for internships they often think in terms of a fifth year of medical school, of instruction and supervision and teaching. I think a most important thing in any internship is the attitude, quality, and caliber of the staff as well as the availability of patients and a variety of clinical material. Without the appropriate attitude of the staff any elaborate program, although it may look well on paper, is going to be dead on its feet. The medical school does not wind up its job by handing its men M.D. degrees—it should stand ready to handle postgraduate education different ways, some of which have not yet been defined.

Q.—How can we stress outpatient treatment when we all know that outpatient departments do not have the wealth of material they had formerly?

A.—Dr. Nunemaker—The Advisory Committee Report points out that hospitals are finding it mutually beneficial to create facilities, adjacent or very nearby, for their attending staff, not only for better care of the hospital patients but also so that these private patients can be seen in conjunction with the house staff in the environment of former outpatient departments. This is increasingly common. The plans for a new hospital area in a Chicago suburb include a multi-storied office building for doctors who can use the hospital lab, x-ray facilities, *et cetera.* This is to create a local environment in which out-patient experience can be given to the house staff, since they are sure they will not need the orthodox outpatient department. Another way is by hospitals affiliating; with the length of patient hospital stay falling, some way must be found to teach medicine increasingly on ambulatory patients.

Q.—If training with ambulatory patients in the doctor's office is accepted and if continuity over six to eight months is developed, does this not limit the number of house staff doctors being taught and wouldn't it be better to limit the continuity to three to four months in our offices?

A.—Dr. Nunemaker—Continuity of three to four months is better than three to four weeks. In its report, one of the three fundamental principles the committee stated was continuity of contact with the men best qualified to teach, in contrast to rotating assignments of one month or two months to a variety of men who really never learned the name of the house staff officer. Somewhere the decision has to be made to limit the contact of the interns to those men best qualified to teach when all of the attending staff claim they have the right to the time of the intern.

Dr. Leonard—Men on various medical school faculties seriously doubt how much a medical student or intern can get from sitting in their offices looking over their shoulders, especially in a short period of time. Probably this merely means that most doctors and their patients aren't as comfortable in the presence of a third person. I think it would be smarter to think in terms of having an adjacent hospital section where this type of outpatient follow-up can be carried on rather than trying to distribute interns and residents

through numerous physicians' offices. In the problem of assigning interns or residents to too many physicians on an in-patient basis we face the same thing. We have solved that to a considerable degree by saying that our large ward and semi-private teaching floors shall automatically constitute the teaching population.

Q.—Wouldn't it be wise to ask a man to re-evaluate his training five years out of his training program—he would then be competent to do it?

A.—One of the devices the Advisory Committee used to secure information was to poll the entire graduating classes of 1937 and 1947. The responses to the question, "from a list of ten defects list in the order of importance the defects of your training program"; from both classes were: 1. lack of supervision, 2. few teaching exercises, 3. program lacking responsibility, and 4. heavy patient load. The 1937 graduates' replies showed that 43.1 per cent of those who had taken straight internships wished they had had rotating internships.

A four month medicine assignment separated by other services—one month medicine, one month surgery, then another month medicine, *et cetera*—is usually caused by the heavy load of the hospital in the particular service. This is seen in large city hospitals, and the program gets perverted because of the service needs of the hospital so that continuity in one service is broken. In general, we say that medicine should equal or exceed the time on any other service. No service (major) should be less than two months. Ordinarily four months on medicine, and either three or four months on surgery, two on obstetrics and two on pediatrics is pretty much the standard pattern, with perhaps a month or so of elective and with psychiatry and outpatient related throughout the entire program.

Q.—What progress is being made in using paying patients in teaching programs?

A.—Dr. Nunemaker—A Committee of the Association of American Medical Colleges has considered the question of using paying patients in teaching programs to the point of whether the house staff can charge. The suggestion I like best is to have the patient told that his care cannot be given by just one man but that it is a team effort. Obviously, the private surgeon could no more single handedly perform the surgery on that patient but must have a team with him. It should be presented to the patient in that manner with the statement that this senior resident is going to be the captain of that team and the surgeon will be a member of the team. When the patient does not know that the resident is to be the principal operator and the consent is not sought, this then becomes ghost surgery. There is great unrest concerning this.

Dr. Leonard—We have had the same arguments. We teach with 100 per cent of our patients. We still have a hard core of surgeons and obstetrics men who will not go along with this concept, but this number gets smaller every year. One thing that has impressed me is that the intelligent patient appreciates having two or more people looking after him rather than just one.

Q.—How do you get the surgeons to do daily bedside teaching in your hospitals?

A.—Dr. Leonard—If we did not have a by-law whereby a person's original appointment to the staff (this includes all specialties) and the annual renewal depends upon his taking part in the teaching program, we could not get the surgeons to do bedside teaching.

Q.—How should an intern committee be selected in a given hospital?

A.—Dr. Leonard—I hope I made it very clear that there should not be just a director of medical education. It is still the habit in most hospitals to have that committee consist of the chief of each major service. I have nothing against this except that the chief of surgery and the chief of obstetrics may be so "whipped" by the end of each day that they have little energy left for problems that require enthusiasm and hard work. Therefore, it is my feeling that the specialty department should choose its most able and enthusiastic person to work on the house staff committee. That person, in turn, could have constant and frequent consultation with his chief of service.

Q.—Should this education committee have more than one year's tenure?

A.—Our graduate medicine committee, because it takes in the whole gamut of house staff training, has worked together for five years. Its predecessor committee worked for the preceding seven. I think there must be continuity. If there is complete turnover every year, as with any staff's executive committee or any board of executives committee, it ruins continuity and quality of the program.

Q.—Is the director of medical education of equal importance to a university hospital as to a non-university hospital?

A.—Dr. Leonard—I think that while some university hospitals have appointed directors of medical education, they usually are appointed just as coordinators rather than as active teachers and participants. The need is largely in the non-university hospital that does not have a full time chief of service and a dean to take up the slack that the non-university hospital does not take care of unless it has either a director of medical education or a devoted house staff committee willing to spend massive amounts of time.

Q.—If an intern program includes affiliation among several hospitals, isn't it an AMA intern requirement that a certain amount of time be spent in the home hospital, and if so, how many months?

A.—Dr. Nunemaker—This idea of integration has developed far more in residencies than it has in internships, but we're going to see more and more of these indented listings applied to the intern program. The term "parent hospital" is used most frequently in relation to an affiliated hospital in the sense that this hospital affiliates, has no approval of its own, but is used for not over 25 per cent of the total time for training in a particular area that the parent hospital doesn't give. To use surgical residencies, for an example, it is not infrequent for a particular hospital to be very well equipped for gynecologic surgery, whereas the parent hospital may have very little provision for gynecologic

surgery. That other affiliated hospital then may participate simply as an affiliate for a few months or a short period of time in the program, and if it is an affiliate, then the other one that has the approval is the parent. However, if those two hospitals were quite comparable in many respects, and banded together in one complete program where perhaps an equivalent amount of time was spent in the two, or three banded together where an equivalent amount of time was spent in all three, this if presented as an integrated, combined, unified, single program, would be quite acceptable.

Q.—What is the intern-patient ratio mentioned by you earlier?

A.—Dr. Nunemaker—The *Essentials* state that training hospitals should have at least 150 beds and at least 5000 annual admissions, and one intern should not be responsible for less than fifteen or more than twenty-five beds. This, of course, must be considered with the size of the hospital, the rest of the house staff, the existence of other residency programs and how much time is spent on non-ward activities. So, in a 150-bed hospital fifteen beds per intern would require a house staff of ten; for twenty-five beds per intern the quota would be six.

Moderator—I think that answers the question whether the small hospital has a significant role in medical education. I think we could say that it does, insofar as internship is concerned. I would like to have you comment on this in relation to a residency program.

Dr. Nunemaker—When general practice residency programs were inaugurated some years ago, a great effort was made to encourage such programs and some were approved in hospitals considerably smaller than 150 beds. To one that had only fifty beds, I wrote a very critical letter at the direction of the committee because the hospital had twelve residents, mostly Mexican. In the *Essentials of Approved Residencies*, requirements for clinical experience in a particular specialty are not recited so often in terms of beds as in admissions or some type of clinical material being available. In general, residency programs are not fully approved in hospitals smaller than 150 beds. Unfortunately, we have a large number of one or two year programs in surgery, medicine, pathology and obstetrics. The Council now is considering whether certain of these programs should be disapproved. A growing tendency regarding residency in specialties has been to approve for the full period or not at all.

Moderator—Many hospitals having approved three year surgical residencies or two year OB residencies are having difficulties getting residents other than foreigners because they do not have an additional year. Do you have any idea of how long the shorter programs are going to be maintained?

Dr. Nunemaker—I believe it's the sentiment of many that it would be desirable if all surgical programs were four years. Apparently, it is just not feasible in many situations where a three year program can be thoroughly sound. I don't know of any change contemplated at the moment. The one and two year programs were originally approved for the primary purpose of providing general surgery for the man planning on further surgical specialty training. These partially approved surgical residencies are being used to a minor degree by men who seriously expect to go on in a surgical specialty.

Q.—Moderator—*If you and the chief of the service do not agree on an important aspect of a residency program, how is this dilemma resolved?*

A.—Dr. Leonard—I have a standing policy with the house staff, which I think is a part of both diplomacy and humility, that any time I am voted down I gracefully accept it. If there is a difference of opinion between the chief of service and myself I always very humbly ask why not take a vote on it. So far, 100 per cent of problems have been resolved in this manner.

Q.—Dr. Clifford—*What would be an appropriate salary for a Director of Medical Education in a community hospital, full-time and part-time?*

A.—Dr. Leonard—In this year, 1959, I think that if your hospital wishes to attract as Director of Medical Education a well trained person with ability and ideals, who is enthusiastic and devoted, you should consider paying him $25,000 a year. If the position can be carried on a part-time basis the range should be up to $10,000.

Q.—Dr. Buerki*—*May I go back to diplomacy and humility? As an administrator I see many people trying to solve a problem when it arises without having had a clear mental picture of where they are going and how things are to be resolved before there is a problem. I am impressed with the fact that when there is a problem emotion gets involved and the best answer rarely emerges. Diplomacy and humility do overcome a lot of shortcomings but I like to see problems anticipated and decided on a democratic basis by the staff.*

A.—Dr. Leonard—I would agree entirely with Dr. Buerki. A Director of Medical Education can have no value if things are not spelled out in advance. He must have a position on the attending staff with authority which is understood and accepted and he must be on the administrative staff with a vote. Without these his ability and humility are going to be completely negated.

Dr. Nunemaker—At a meeting in Chicago the question arose of whether the "D.M.E." should be a board diplomate. I think there was general agreement that he should be a diplomate of the board of diplomacy.

Q.—Could you list criteria for selecting instructors for a program—specialty versus general practice?

A.—Dr. Leonard—In my area we have so many specialists that the general practice doctor takes one year of rotating internship and then a one year residency in medicine because in very few places can they do surgery unless they are Board certified. Except in an area where the family doctor has to do everything, the second year can well be spent within the Department of Medicine. As to instructors I think

*Substituted for Dr. DeBusk.

I indicated earlier that the Director of Medical Education, with the constant support of his committee, should choose people from each department on the basis of background, training, enthusiasm and teaching ability. Unfortunately, there are some in every area who really would love to teach but cannot; they should not be put into the position of being asked and having the house staff say: "We know he knows his stuff but he can't get it across."

Dr. Towsley—We have a two year general practice program which includes internship. We do not call it a residency—in fact, we have not applied for approval. We make every effort to utilize the services of general practitioners in the teaching program. In one hospital in which there were no specialists our program failed miserably. We feel that board qualified or board certified men in the various specialties are essential to a teaching program. We also feel that the general practitioner is a very integral part of this program because he can do very well in bedside teaching and the practical approach to many points. Another very ulterior motive for wanting the general practitioner to be a part of the program is that the man who teaches has to read; the man who reads betters himself and does his own postgraduate education. If the family doctor is part of the team he will do a better job of practicing medicine—he will read, he will study, he will attend CPC, x-ray and clinical conferences if he is part of the teaching team. As a whole this raises the standard of medicine in the community.

Q.—To what extent should research be a part of residency training?

A.—Dr. Leonard—Research often is thought of as purely laboratory procedure. While that is important, I have been impressed by the number of youngsters who, with suggestions on ward rounds, delve into medical records of the preceding five to twenty-five years. If there are excellent medical records then a form of research is possible which often produces extremely valuable information not only for the person doing the work but also for the entire hospital and often the community.

Dr. Clifford—The critical attitude and habits of mind which are characteristic of research activity would very well apply to the evaluation of patient's problems and therapeutic results.

Q.—How does a Director of Medical Education determine whether the various departments are doing satisfactory teaching?

A.—Dr. Leonard—We have faced this problem many times. Once each year the House Staff Committee evaluates residency training programs and the internship program, based upon comments requested from the residents in each department and from our 18 rotating interns. From this constructive criticism we actually get magnificent material and suggestions for improvement of our training program.

In 1954 we attempted to learn from fourth year students and interns the things which they thought were most important in an internship. First was the quality of the training program. Sixth and seventh were salary and living quarters. In 1958, similar questionnaires showed that the quality of the training program was still first, with living quarters for married interns and residents second and salaries third.

Dr. Towsley (concluding)—Dr. Saltzstein and his committee organized this program because we feel that in Michigan we have a real problem. We have a hard time attracting interns and making our internships appealing to prospective candidates. We would have 680 interns in the state if all of the hospitals filled their quotas. On the matching plan we received 360 interns, which gave us a little better than 56 per cent in the state as a whole. Meetings such as this will help us do better by getting to the crux of the problem.

Course in Hospital Management

A course in hospital housekeeping will be given April 4-May 26 for the twelfth consecutive year at Michigan State University, East Lansing, Michigan.

The course, the only one of its kind, is sponsored by the American Hospital Association in cooperation with the university. It will provide practical training in hospital housekeeping procedures for executive housekeepers, members of hospital housekeeping staffs and prospective employes. Enrollment will be limited to forty students.

The course will include the philosophy of hospital care and institutional organization, personnel management, institutional management, housekeeping supplies, equipment and procedure.

Applicants must be hospital employes or individuals promised employment in hospitals.

A total of 337 persons, representing 317 hospitals ranging in size from nineteen to 2,000 beds, have been graduated from the course during the last eleven years. The students have come from forty-six states, Puerto Rico, Canal Zone, the Netherlands, and seven Canadian provinces.

Ten scholarships are available, but too late for this year. Address Scholarship Committee, Huntington Education Fund, American Hospital Association, 840 N. Lakeshore Drive, Chicago 11, Illinois.

Hidden Occupational Hazards in Industry

Henry J. Kreulen, M.D.
Grand Rapids, Michigan

WHEN I entered the field of Industrial Medicine, industry was emerging slowly but surely from the depression. The number of unemployed was decreasing daily. From a low point of 15 million unemployed men and women, industry was emerging upon a scene of new technology with a strong emphasis upon the prevention of accidents and illness rather than upon the care of the injured. Not that prevention was something that was new and heretofore not stressed, but a new emphasis emerged. Along with the new processes, new materials, new machines, new products, and new chemicals there came a new demand on medical science—the relationship of man to his industrial environment was now the challenge that Industrial Medicine was to face. The meeting of this challenge did not come as a result of new laws being passed or new ideas being issued, but management voluntarily took up the challenge and began to study the relationship of the employe to his employer and to his working environment.

Thus has come forth and multiplied by leaps and bounds, a new employe, a new member on the team —the industrial physician. His task has not always been an easy one. As each year passed with greater rapidity (not only because of his increasing age but also because of the increasing tempo in industry, the rapid development of technology, the astounding increase in new methods, the tremendous discovery of new chemicals and new products) it became increasingly more difficult to keep abreast in this new age of medicine, technology, and humanity. But it is here that the industrial physician came into his own specific sphere of influence. It is his duty to keep abreast of the times in order that he may keep the worker healthy. This is done by keeping him in a healthy working environment. Furthermore, it is his duty to be able to advise the worker as to personal emotional management of his own relations at work, at home, and in his community associations. If the worker is not well he should be advised how to get well. On the whole, this task has been carried out by the industrial physician who furnishes thousands of services in industry with the backing of management.

In the United States *now* there are more than 12,000 chemical plants manufacturing in the neighborhood of 9,000 different products in commercial quantities. The industry employs over 1,000,000 people. In 1914 employment was 32,000; by 1918 these figures tripled as a result of World War I. Before this, our own and the chemical industries of the world were controlled by foreign chemical industries. European domination of our American markets was what our chemical industries had to face. However, America with the determination to win, finally developed a chemical industry second to none. So today we are producing thousands of organic and inorganic compounds and this brings a challenge to the industrial physician to keep up on the rapidly changing times and materials.

In the years following this chemical revolution there developed, through the efforts of medicine and engineering, the science of industrial hygiene and toxicology. Thus, from accident treatment the industrial physician emerged as an individual interested in prevention of disease and in assuring the American worker a healthful work environment. Through the study of air and chemical analysis of products, we have made it possible to use many agents which previously were harmful but can now be used with impunity. Thus, a new science has developed—industrial hygiene and toxicology. This is not to say that there are no longer injuries to treat; the accident rate is gradually improving; frequency ratings are being reduced. However, the emphasis is changing from the treatment to the prevention of accidents and illness. By means of this change in emphasis, new methods have developed which vitally change the environment of the American worker giving him advantages which no other worker in the world surpasses. But it also brings medicine and industry closer together to solve the problems which our new

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technology produces. Hazards are more closely evaluated and finally—with the help of engineers, management, and medicine—we are able to provide work areas so that disability and disease are rapidly being eliminated.

With the rapid development of new chemicals constantly replacing the old, it is even more difficult for the industrial physician to keep pace with the rapidly changing products being used. Add to this the fact that between 85 per cent and 95 per cent of the employes in American industry have no medical services available in the plant, we can see the great need of interested parties such as physicians to be alert to the toxic problems facing our workers today. Also these 85 per cent to 95 per cent of the workers are being treated by general practitioners who themselves state that they are unable to keep pace with the toxicology of new products and materials used in industrial processes.

This brings me to the next important point—what about these people who present certain symptoms which may be the result of toxic exposure to chemicals or substances used in their employment? What things are necessary for the general practitioner to know before he can make an accurate diagnosis? Let me briefly outline a few salient points. First, and probably foremost, the physician should know something about the working area of the employe. Is he exposed to any toxic materials and if so, what is the substance he is exposed to? If the substance is toxic the physician should be alert to the results of such an exposure. Are there any precautions or safety devices used by management to protect the employe so that his exposure is within safe limits and not the cause of his illness? Are the precautionary methods adequate or was there a possibility of a temporary break in the technique so as to expose the employe? If management is alert to the hazard and adequately protects the employe, then the physician can be assured the worker's illness is not the result of his working environment. Questions and observations of the worker in regard to his personal hygiene are in order. Is he careless in the use of the toxic material and is he making proper use of washing facilities, change of clothes, and helping management with good housekeeping? The reason the full-time industrial physician can be of help to the general practitioner is that he is acquainted with the work area, has personally seen it and knows whether or not protection is adequate. If no full-time physician is present, the family physician should make a personal visit to the work area which is just as important as a history or physical examination. The physician should acquaint himself with the material and determine the toxicity of it. This, of course, is determined also by the portal of entry. Some substances are absorbed through the gastrointestinal tract, others by inhalation through the lungs, and others through the skin. Is the exposure plus the probable portal of entry responsible for the toxic symptoms the patient presents?

A word of caution would not be amiss at this point. Most will agree that by far the majority of the employes are honest in their reporting and descriptions of the work they are doing. There are, however, those who will exaggerate the amount of lifting they are doing or exaggerate the amount of dust in the air they breathe or any other pertinent information regarding the working environment. Therefore, it becomes very important for the attending physician to personally acquaint himself with the work area so as not to be misled by the history in making his diagnosis.

Having determined the foregoing, the physician should be able to differentiate between the acute pulmonary edema as a result of heart failure and the pulmonary edema due to ozone or cadmium fumes. Whether his headache is from CO or lead or sinusitis, whether his convulsions are due to epilepsy or due to parahtion poisoning, his weakness and anemia might be due to benzol or lead but also due to pernicious anemia or leukemia. The bloody urine may be due to benzol or arsine. His anuria with high blood pressure, nausea and jaundice, and loss of vision might be due to chronic nephritis on a post-infectious basis or it might be due to carbon tetrachloride. His bloody stools could be intestinal influenza or ulcerative colitis but it could also be mercury intoxication. His chronic abdominal distress with abdominal colic and wrist and foot drop might be due to lead but other causes must be ruled out. Hence, the following injunctions:

1. A good occupational history is necessary for differential diagnosis.
2. See the work area and, if possible, the plant engineer.
3. Any poisonous substance can be handled safely with the proper precautions and safety engineering.
4. Remember the route of entry is by one of three roads—lungs, digestive tract or skin.
5. An ounce of prevention is better than a pound of cure.
6. Good housekeeping is an essential. Hazardous and disagreeable working environment are not unavoidable conditions of employment.

Let me not forget to mention the problem of failure to properly label materials coming into the plants. It is gratifying to see the A.M.A. Committee on Toxicology discussing the Uniform Hazardous Substances Act. Legislation should be passed requiring all packages having ingredients that are hazardous to be so labeled as to disclose the hazardous substances in them. How often we are confronted with the problem of approving a new substance—with only a trade name on the label and having no assurance of the absence of harmful ingredients except the say-so of the salesman or company representative. Then starts long weeks of correspondence. Many times, firms even refuse to disclose the active ingredients for fear of substitution or imitation. In July of this year, the Committee on Toxicology again met with representatives of Trade associations, toxicity testing laboratories, chemical trade unions, and other interested groups. We sincerely hope that the result will be proper labeling of the packages containing the harmful ingredients.

Anoxemia

One toxic substance which is more and more given the respect it deserves is carbon monoxide. We all know that it is formed as a result of incomplete combustion. The most common causes of non-industrial CO poisoning are from poorly vented gas heaters and furnaces, leaky or even stopped-up chimneys. Automobile exhaust is very common in industry where many small tractors are used and also the presence of floor furnaces. In some new welding processes where alloys of steel are welded, temperatures are achieved even to 4000° Fahrenheit. The presence of oxygen increases the number of imperfections and therefore a shielding process is used by creating a shield of inert gas to keep the oxygen from the weld. After using argon or helium, it was found that carbon dioxide (CO_2) was just as effective but much less expensive. Because of the high temperatures, CO_2 may break down and give off CO at the point of welding. In large areas where there is ordinary circulating air there is little danger but in confined areas there may be an appreciable exposure to CO. The maximum exposure acceptable is 100 parts per million.

We all know that the final result of exposure is anoxemia. This occurs because the CO combines with hemoglobin to form carboxyhemoglobin. The affinity of hemoglobin for CO is about 300 times that of oxygen, and the resultant carboxyhemoglobin is also much more stable. Therefore there is less transfer of oxygen and also less removal of CO_2 from the body in addition to certain effects on the function of enzymes and pigments.

There are several factors which increase the effect of a given concentration of carbon monoxide. Exercise is perhaps the greatest; length of exposure, another; and temperature and humidity, another.

Regarding pathology, the anoxemia which is produced results in changes in all the end organs and especially the blood vessels. The capillaries are particularly affected by a sequence of dilatation, increased permeability, edema and finally hemorrhage. Every organ is affected and damaged. The brain and heart are perhaps the greatest to suffer damage. Cerebral edema accounts for headache and dizziness and hemorrhagic encephalitis may result from large concentrations of CO. Cardiac damage usually involves the conduction mechanism and coronary vessels. Even coronary thrombosis may result. Similar changes can be seen in all organs—skin may show blisters and petechial hemorrhages. It is well that we be alert to the possibility of CO poisoning, especially where motors are running (whether diesel or gasoline), in areas where air is not freely circulating. The employe who complains of headache, nausea, and a tired feeling might well be suspected of CO poisoning. Marked weakness and collapse may confuse a physician who feels it may be anemia or heart failure.

Solvents

It would take years of study to be well acquainted with all of the solvents. There is one characteristic they all have, and that is also the property which makes them toxic, that they dissolve fats. This means that they will penetrate skin on contact and gain access to the blood stream. Thus, we must not only consider absorption but also the inhalation of vapor. This property of fat solubility explains the accumulation in parts of the body that contain the most fat, thereby producing anesthesia, unconsciousness, paralysis and death. The second property of solvents is that those chemicals which normally exist in the body as a result of food absorption or are products of metabolism of food are less likely to produce poisoning when absorbed from the working environment such as alcohol, glycerol, acetic acid, and lactic acid. The third property which is not only applicable to solvents but also to other poisons, is that pleasantness of smell is not a guide to the toxicity of the solvent.

Solvents may be divided into straight chain aliphatic hydrocarbons. These are the gasoline and kerosene type of solvents and their toxicity consists of skin irritation, defatting, asphyxiation, and anesthesia in confined spaces. Also commonly used are some aromatic solvents such as benzene, toluene, and xylene. Their vapors are much more toxic than petroleum vapors and their degreasing action more rapid and severe. Today, gasoline may contain as high as 20 per cent benzol, even in unsaturated chains and cyclic compounds. Therefore, when solvents contain this degree of benzol we may expect bone marrow damage in time, or headaches, weakness, paralysis of muscle, and changes in personalities and moods. Then we have the halogenated hydrocarbons. These include carbon tetrachloride, chloroform, and the chlorine derivatives of ethylene and ethane. In general, the addition of chlorine to straight chain hydrocarbons lessens the inflammability, increases the narcotic effect and increases the toxicity especially to kidneys and liver.

One can hardly discuss toxicology and toxic substances without coming in contact with carbon tetrachloride. In 1923, nearly 11 million pounds of carbon tetrachloride were manufactured in the United States. By 1930 the quantity had nearly tripled. A large chemical company in 1951 estimated their production capacity to be 224 million pounds per year. By 1958 this may well be 400 million pounds per year. The history of carbon tetrachloride is very interesting: —from its origin as an anesthetic and analgesic to its use as a shampoo because of its grease dissolving properties; then as an anthelmintic for which it was used some ten years ago to the present industrial usage. Most of the uses of carbon tetrachloride in industry are dependent upon its quality as a solvent for such materials as oil, grease, fats, waxes, rubber, paints, lacquer, asphalt gums, and resins. Its degreasing ability accounts for its use as a dry cleaner, dry because it vaporizes quickly and superior to gasoline and naphtha because of its non-inflammability. Its large use is as a fire extinguisher. Since it does not conduct electricity, it is useful in fighting fires near electrical equipment where water might cause short circuiting. Phosgene, a decomposition product of carbon tetrachloride, is a poisonous gas and must be guarded against when carbon tetrachloride comes in contact with heat in a small area. Carbon tetrachloride is also one of the raw materials used in the production of Freons which are used as refrigerants.

The symptoms of acute intoxication are characterized by sudden unconsciousness which is followed by either quick recovery or death. Usually the heart exhibits extra systoles or ventricular fibrillation. Those symptoms that follow in a day or two are due to severe destruction of the liver. However, the most important type is that of subacute poisoning—the most numerous and the most dangerous. One factor which is important in these cases is the aggravation of toxicity in those cases where alcoholism is a factor. The kidneys frequently show lower nephron type of damage. Other changes are found in the liver, bowel, and brain. Most common symptoms are vomiting, nausea, abdominal pain, headache, edema, fever, and jaundice; signs are albuminuria, rise in non-protein nitrogen, hematuria, and pulmonary edema. The third type is the chronic exposure and that is the type most often seen in industry. They are also not as clear-cut and therefore frequently not recognized. Mental dullness, ambylopia, cirrhosis, and gastrointestinal symptoms frequently predominate the picture. Death is due to hepatic failure as shown by deep coma and jaundice. In industry we must be alert to this exposure. Carbon tetrachloride is frequently used as a cleaner of greasy and oily machinery. Motors are frequently sprayed with solutions most of which contain varying amounts of carbon tetrachloride. These should not be used if possible but if no other means exist, should be used where either cross ventilation is adequate or in spray booths where there is no possibility to inhale the toxic substance. The use of carbon tetrachloride in fire extinguishers in enclosed areas is also to be discouraged because of phosgene which may be generated.

Cadmium Poisoning

Another toxic substance which I would like to discuss briefly is Cadmium. Cadmium poisoning occurs more frequently in industrial operations than is commonly recognized. The metal is soluble in acid and is very rarely used as a pure metal. Its modern use is mainly as a constituent of alloys or in compound form. It is also capable of taking a high polish and is resistant to corrosion and rust. Therefore, it is frequently used in electroplating. In industry, the usual hazard is in the form of dust or a fume and the portal of entry is the respiratory tract. Incidence of poisonings are increasing because of its wider usage, and are seen in the making of alloys, metal plating, spraying, and welding—thus exposing platers, solderers, refiners, and smelter workers. In 1953, Amdur and Caputi of Buffalo, New York, re-

ported a group of four in which exposure was a metallizing procedure by means of which cadmium was melted in an oxyacetylene flame and then deposited by being blown against a rotating spindle. Because of the small spindle, about 60 per cent of the metal dust was dispersed in the room. In this instance, the offending material was the metal as distinguished from the fume. All four persons recovered. In 1958, Colter of New York, reported three cases with recovery in all. One was a chemist who worked with finely powdered cadmium. The second was a plater's helper and the third was a pigment mixer who used cadmium sulfide.

The use of cadmium in the ordinary plating operations at ordinary temperatures is harmless but when fumed by burning, the small fume particles are inhaled deep into the lung where they have the same effect as phosgene. The result is a diffuse burn of the entire lining of the lung with the outpouring of fluids and is difficult to distinguish from cardiac failure with pulmonary edema.

The first symptoms of acute cadmium poisoning is a distressing cough followed either quickly or possibly not for hours by headache, dizziness, shortness of breath, and a feeling of tightness in the chest. Dryness of the throat as well as nausea or vomiting may also be seen early. Later there are chills reminding one of metal fume fever. When the lungs are so severely damaged that oxygen can no longer combine with the blood, there is fever and the patient dies. Marked mental irritability may also be present.

The inhalation of dust or fume is the cause of the above symptoms. Cadmium is highly toxic and causes severe damage to the terminal air sacs of the lungs. Further pathology is seen in liver, kidney, and bone marrow function. Elimination of cadmium is slow and protracted, suggesting a tenacious binding in the tissues.

Antimony Poisoning

One toxic substance of which one hears very little is antimony, and also called Stribium. It is usually found as a sulfide. It is soluble in hot hydrochloric acid. It is used extensively in alloys because of its peculiar property of expanding upon cooling, a property which is just opposite of that found in most metals. This property makes its use valuable in printing type metal. Antimonial lead is used in the storage battery industry and in metal bearings. Shot, colors, paints, enamelware, munitions, and chemicals contain the metal. Frequently antimony trisulfide is used in the place of lead.

Poisoning occurs as the result of contact with the powder or dust of antimony or its compounds. The dust gets on the skin, in the nose, mouth, or throat, and then is ingested. This results in possible nasal ulcers or acute stomach and intestinal disturbances, or both. Antimony metal and compounds are irritating to skin and mucous membranes and is considered a systemic poison. Action is similar to arsenic and lead, and also gives a metallic taste in the mouth, vomiting, colic, loss of appetite and weight, but diarrhea is much more common. Chronic poisoning produces a reduction in white blood cells and damage to the liver. Because arsenic is frequently an impurity of antimony and because lead is frequently found as an alloy with antimony, the complications and toxicity of the two agents are confused with antimony exposure. However, it is fortunate that the treatment for arsenic and antimony is essentially the same.

Arsenic Toxicity

Because antimony and arsenic are closely related I would like to briefly discuss the toxicity of arsenic. The metal is silver grey in color, insoluble in water but soluble in nitric acid. The compound most commonly in industrial use is the trioxide. It is used extensively in the manufacture of insecticides as lead arsenate, Paris green, dyes, and rat poisons. The principal exposure occurs in smelting of ores. Acute poisoning is due to intentional or accidental swallowing of the ores. The poisoning in industry is due to chronic or prolonged inhalation and absorption of fine dusts or sprays. It is highly cumulative, being deposited in all the tissues of the body especially in liver and kidneys. Also in hair and nails where it can be detected about two weeks after the beginning of exposure and here it persists for months after the exposure is terminated. It is eliminated through the kidneys and can be identified within a few hours after the initial exposure in the urine.

The symptoms of arsenic poisoning are general weakness, headache, skin lesions, warts, ulcerations, sweating, loss of hair and nails, inflammation of eyes and mucous membranes of nose and throat, nausea and vomiting and some diarrhea, muscular weakness, and numbness of extremities. These symptoms are severe nuisances but seldom fatal or disabling.

Severe and acute industrial poisoning with arsenic are likely to be the result of inhalation of arsine produced when hydrogen is generated in the presence

of arsenic. This gas has been reported in the acid cleaning of filter plates, in the handling of wet dross from a light metals plant, cleaning of tank cars which held sulfuric and hydrochloric acids or in the precipitation of cadmium with metallic zinc. Arsine rapidly destroys red cells—after inhalation the first signs are lack of oxygen—then the body excretes red cells which show as a bloody urine and finally kidneys cannot function at all. The possibility of arsine formation should always be considered when there is hydrogen formation around active metals since arsenic is widely distributed in small amounts and only a trace is required to produce enough arsine to be troublesome. One of the common sources of arsine is in the handling of dross from the aluminum refining of metals. Another source is when zinc containing arsenic is dropped into hydrochloric acid resulting in the development of arsenious hydride or arsine. It is roughly twenty times as toxic as cyanide.

Conclusion

I have merely mentioned and touched on a few of the toxic materials found in industry today. In conclusion, I would like to suggest that if there is a safety and medical department in the plant with which you might be connected that no new chemicals are purchased by the purchasing departments without the approval of the safety and medical departments. This is perhaps the first line of defense. Frequently, unsafe materials (especially solvents) are used because some salesman or representative of the chemical firm advises their use and frequently forgets to mention the hazards involved or the toxic materials present. Injury may result before its toxicity is discovered. In your walks about the plant, do not minimize the use of the sense of smell. Many harmful contaminants are invisible to the eye. So use your eyes, your nose, and your throat to advantage.

300 36th Street, S.E.

Trials of Sabin Vaccine Start in Three Cities

Trials of the Sabin live-virus polio vaccine in this country are being made possible through three grants totaling over $300,000 in New March of Dimes funds.

The U. S. trials of the vaccine developed by National Foundation grantee Dr. Albert B. Sabin of the University of Cincinnati are being conducted in Houston, Tex., New Haven, Conn., and Cleveland, Ohio. The vaccine has already undergone limited tests in this country and extensive studies in the Soviet Union, Czechoslovakia, Latin America and the Far East. In the Soviet Union alone, the vaccine has been given to more than 12 million people without any reports of unfavorable effects.

Further tests on live-virus polio vaccine were called for last year by the U. S. Public Health Service and The National Foundation.

Reporting that the Salk vaccine is a safe and effective weapon against polio, the Public Health Service recently stated that a license will not be issued for any live-virus polio vaccine until certain questions are answered in detail. The National Foundation studies are designed to clear up specific points regarding stability of virus strains in the vaccine, administration schedules and the practicality of giving the vaccine to the newborn.

Unlike the Salk polio vaccine, which immunizes with viruses that have been chemically "killed," the Sabin vaccine uses strains of "live" but attenuated or weakened viruses.

The Sabin vaccine can be taken orally. It is expected to cost less than the Salk vaccine. It is hoped that the Sabin vaccine may give longer, more effective immunity and that it may possibly start the process of immunity more rapidly.

Under a New March of Dimes grant of $170,884 to Baylor University, Houston, Dr. Joseph L. Melnick is directing a community trial in which 4,400 persons will be studied, 250 of whom will receive Sabin's vaccine. It is known that live-virus vaccine can spread from the person who takes it to his family and other close contacts. Dr. Melnick will attempt to find out how many contacts will acquire immunity in this manner. He will attempt to learn to what extent the live-virus vaccine may "revert" to a more virulent state after passing through a person who is vaccinated and his contacts.

Under grants totaling $81,038 to Yale University, New Haven, Dr. John R. Paul is also studying the degree that live-virus vaccine may increase in virulence after passing through those who receive it. Dr. Paul's project, however, is primarily designed to provide information on how high a dosage and at what schedule vaccine should be given to assure that it will "take" in those who receive it.

Under a grant of $57,387 to Western Reserve University, Cleveland, Dr. Frederick C. Robbins' study deals with the feeding of live-virus vaccine to newborn infants. It will focus particular attention on what influence polio antibodies obtained from the mother may have on her child's response to the Sabin vaccine.

Three tiny vials of Sabin live-virus polio vaccine—less than an ounce—are all that Dr. Joseph L. Melnick needs for New March of Dimes-sponsored field trials involving 4,400 people in Houston, Texas.

Current Use of New Drugs in Anesthesiology and in the Treatment of Pain

John S. Lundy, M.D.
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IN contemporary practice, we have many agents and methods which permit us to produce anesthesia with a bright prospect of success—a prospect that is entirely different from the one we faced only a few years ago. Now we have ways of overcoming pain problems which are much better than the few means available to us even as recently as five years ago. This welcome change is the result of research carried out largely by pharmaceutical houses although other workers have contributed an important share as well.

Let us briefly consider the advances made in the fields of analgesic agents, tranquilizing agents and a variety of drugs that will induce sleep. Suppose we are confronted with an ordinary adult person who must undergo an operation for detached retina. It is desired to use general anesthesia. Accordingly, the patient is visited on the night before the day of the operation and is asked a few questions about previous experience with anesthetic agents, about sensitivity to drugs, and whether or not he smokes. If he smokes, he is asked not to smoke again until after the operation. Cessation of smoking at this time is very helpful in avoiding pulmonary irritation from smoke, with the resulting production of mucus which later can become inspissated to such extent that large pieces may even block the lumen of an intratracheal tube. If an excess of mucus is noted, however, a troche of calcium iodide and ephedrine given by mouth at bedtime and again the first thing in the morning sometimes will tend to liquefy these secretions and make it easier to aspirate them.

The patient is given 25 mg. of promethazine hydrochloride (phenergan hydrochloride) and 500 mg. of ethchlorvynol (placidyl) at the time for going to sleep, although other drugs such as glutethimide (doriden), methylprylon (noludar) and ethinamate (valmid) may be used alternately with the placidyl. Early the next morning, the patient is visited preoperatively and is asked whether he slept well. Some patients will say they slept all night and had to be awakened in the morning; others will say they slept intermittently and not too well. In either event, the answer should give the anesthesiologist some idea of how the patient is affected by drugs. As is well known, one extreme or another may take effect in a patient who otherwise seems to be in average condition. The nature of the patient's reactions to drugs again will be noted during the operation, the sequel to such observation being that he may require more or less than the average amount of the anesthetic agent.

The preliminary medication which we administer to the average patient, as we have described him, is 2 mg. of levorphan tartrate (levo-dromoran tartrate), which is an excellent drug for the control of pain. It is also said to produce less nausea and constipation than morphine. A dose of 0.5 mg. of levallorphan tartrate (lorfan tartrate) also is given so that respiration will be satisfactory. In addition, 25 mg. of phenergan hydrochloride is given. These three drugs can be put into one syringe and the injection can be made intramuscularly.

If the patient happened to be scheduled for an intranasal operation under local anesthesia, we would administer 30 mg. of mephentermine sulfate (wyamine) intramuscularly at the time the preliminary medication was given, to help support blood pressure. This measure is necessary because the patient will

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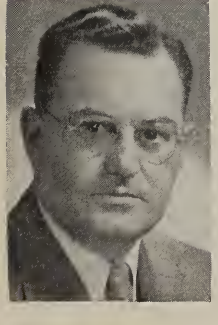

THE AUTHOR
John S. Lundy, M.D.

be sitting up for the operation, and sometimes neurogenic shock will develop, the patient becoming cold, pale, and wet, as well as nauseated. He may vomit.

Sometimes the patient has a tendency toward this same reaction even though 30 mg. of wyamine was given at the time the preliminary medication was administered. In such circumstances, the intravenous administration of wyamine can be repeated, and it would be a rare patient, indeed, who did not respond to this measure.

Preliminary medication usually is given a half-hour before the patient is brought to the operating room. After the patient is put on the operating table, we insert a 20-gauge, 1¼-inch, short-beveled needle, usually in the vein in the antecubital fossa. Having selected one or two intratracheal tubes that seem satisfactory, we devise a plan which we will follow that includes the drugs to be used and the time that will be required to carry out the procedure. I usually inject 2 or 3 cc. of a 2.5 per cent solution of thiopental sodium (pentothal sodium) followed by 1 cc. of succinylcholine, and then 2 or 3 cc. more of pentothal sodium. If it is estimated that more succinylcholine will be needed, it is administered in doses of 0.5 cc., followed each time by 2 or 3 cc. of the solution of pentothal sodium. When muscle twitching starts, adhesive is applied to the upper teeth of the patient, and the anesthesiologist picks up the laryngoscope, opens the patient's mouth and inserts the blade of the instrument to lift up the tongue. The important point here is to institute intubation at the peak of the effect of the small doses of the drugs already mentioned. Use of the laryngoscope commonly is achieved by trying to insert it and to elevate the patient's tongue and epiglottis with it, to expose the vocal cords. I find that results are more satisfactory if I insert the laryngoscope and simply hold it as if it were a hook, grasping the jaw with the right hand so that I can elevate it with that hand and hang the epiglottis on the tip of the blade. In this way I avoid breaking teeth and traumatizing tissue with the tip of the blade of the laryngoscope.

I usually employ a Magill rubber intratracheal tube. On November 28, 1957, I decided to change the tip of the tube from a spoon shape to a shape resembling a pen point. This change allows insertion of the tube through the nose, avoiding polyps and deviations of the septum without causing nosebleed, unless the tube is too large for the nostril. This new tip will carry the tube from the nose into the nasopharynx with less effort than did the old tip, and it will separate the vocal cords and enter the larynx and trachea better than the old tip did. Once the tube is in place, an excellent airway is provided, which is very important with present-day methods of anesthesia which definitely depress respiration.

Once the tube has been inserted, it is connected to the gas machine and a 7-liter flow of nitrous oxide is used with a 3-liter flow of oxygen. Intermittently, more pentothal sodium may be used. Solution of curare is used instead of succinylcholine during the operation. At the end of the operation, it may be desirable for the patient to be almost returned to consciousness. This state, of course, can be achieved if the doses of drugs used during operation have been small.

When the hospital facilities are such that the patient would be much safer if his reflexes were sharpened, the following procedure can be used. For each 3 cc. of solution of curare given, I administer 1 cc. of edrophonium (tensilon chloride), and for each 100 mg. of pentothal sodium used, I administer intravenously 5 mg. of bemegride (megimide). The megimide usually will cause the patient to appear to be alert within fifty seconds to a minute. However, if he does not awaken, the dose of megimide can be repeated when three or four minutes have elapsed after the first dose.

There are those who do not admit that megimide is effective used in the manner described. Nonetheless, if megimide is administered to a patient who exhibits a characteristic lag between request and performance (a typical barbiturate effect) the demonstration will be convincing. Prior to the use of megimide, when the patient is asked to open his eyes, it may be possible to count to five or nine before he actually responds. After megimide has been administered, he will open his eyes as soon as the request is made. Another typical response is noted when a barbiturate anesthetic agent has been employed. When a patient thus affected is sufficiently awake to open the eyes on request, nystagmus commonly appears. This nystagmus may be noticeably modified if megimide is administered.

The foregoing remarks describe a considerable change in the methods of general anesthesia used previously. It is indeed a welcome change. In the associated field of control of painful conditions such as terminal carcinoma, and even prolonged chronic pain, definite progress has been made. For instance, when terminal carcinoma is at hand, the question of addiction to an anodyne is not important. Hence, doses of levo-dromoran tartrate large enough to relieve the pain can be prescribed and the patient's respiration can be protected by lorfan tartrate. I have

been using larger doses of lorfan tartrate than those recommended by the manufacturer, but I have been very well satisfied with the results.

This same program can be followed with the use of such drugs as morphine or dihydromorphinone hydrochloride (dilaudid hydrochloride), stimulating respiration with amiphenazole (daptazole). There are other drugs that might be used; all of them increase the activity recorded in electroencephalographic tracings since they stimulate the cortex of the brain. Two of these are wyamine and methyl-phenidylacetate hydrochloride (ritalin), and more such drugs are being developed, so the situation in the future may be much brighter than it is now.

In the presence of chronic pain without the factor of malignancy, when the problem of pain may persist for years, I consider it wise to provide for the comfort and the sleep of the patient at night. In such a problem, I usually start with the same medication that would be used for a surgical operation, meaning the giving of 25 mg. of phenergan hydrochloride and 500 mg. of placidyl or some sleep-producing drug. I believe that this measure is especially effective for patients who do not sleep well. I base my approach on the premise that if sleep is deep and restful, the patient will face the next day with renewed resolution and probably will be able to maintain himself without drugs, or at least, with the aid of such nonaddicting drugs as the synthetic anodynes (one is darvon and another is ethoheptazine citrate) and aspirin.

Some patients suffer from highly localized pain for which diagnostic block can be carried out to identify the pain pathway. Once such a pathway has been identified, the pain can be rendered nonfunctional for prolonged periods of temporary relief by the injection of a solution of 6 per cent phenol and water or absolute alcohol.

I hope to be able to interrupt the activity of peripheral nerves by means of electricity. If this can be done, the undesirable side effects of the accidental spilling of alcohol or phenol over nerves that are not involved in the pain pathway can be avoided.

Many other conditions which are painful come readily to mind, such as pain after thoracotomy, crushing injuries to the thorax and others. All these problems require the attention of someone interested in relief of pain, and I am confident that more intensive study will be directed at these medical enigmas, with some hope of success in the not too distant future. This is a conservative viewpoint, judged by the impressive changes and advances that have been made in anesthesiology since I entered this eminently useful field in 1910.

Bright Promise

There is a bright future ahead for the 4,000 babies who will be born in the United States with cleft lip and cleft palate during 1960.

This hopeful outlook is revealed by Eugene T. McDonald, Ed.D., director of the Speech and Hearing Clinic at the Pennsylvania State University. Dr. McDonald says that advances in surgery have made it possible to repair lips and make adequate functions possible in many palates.

Dental techniques have been developed for reconstructing by prosthetic means those palates which cannot be repaired surgically. Speech therapists today know how to help children with cleft palates develop good speech.

Furthermore, there are helpful sources for information on problems of cleft palate, as well as resources for treatment, including state and local Easter Seal societies, state crippled children's services, many public schools in metropolitan areas and the speech clinics at colleges and universities.

"Probably of greater importance than the child's cleft in determining his emotional adjustment is the way in which his parents work out their own feeling toward it. An understanding of these feelings—their beginning and how they grow—will help parents direct their feelings into wholesome channels," he says.

Eye Wounds

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PARADOXICALLY, wars and injuries are not always exclusively destructive because a good deal of constructive information can be learned from treatment of these injuries. A good many medical war experiences can be turned to good use in the advancement of civilian practice of medicine. The purpose of this paper, then, is to pass on information gained by the author from the Korean war which might be put to use by practitioners in their daily practice. The general practitioner is often the first to see an injury, and this very important initial emergency chore becomes one of utmost importance. The eye is a small but extremely vital organ to the patient and, because of its delicate structure and function, it should be handled as such.

The surgical treatment of injuries to the eye and adnexa can best be divided into immediate and definitive treatment. Immediate treatment is mainly prophylactic and aimed at preventing further injury than that already caused by the initial trauma and to prevent, as far as possible, future complications. The injured eye should immediately be immobilized, a condition best obtained by patching both eyes and prescribing bed rest. An attempt should not be made to remove blood clots or foreign bodies without adequate anesthesia, good akinesia and proper lighting, for fear of converting a simple wound into one with extensive herniation of ocular contents. Atropine is advisable in most cases. Chemotherapy or antibiotic therapy should be instituted immediately. Tetanus antitoxin or a stimulating dose of tetanus toxoid should be given after any penetrating wound of the eye.

The advent of antibiotics and sulfa compounds has resulted in a marked decrease in infections of the eye following lacerations and injuries. It has been found that most antibiotics will not pass through the blood aqueous barrier of the eye in adequate amount; these even include penicillin and streptomycin. This may seem contradictory; however, the use of antibiotics will help protect extraocular structures from infection. Chloramphenicol (chloromycetin) taken orally will pass through the blood-aqueous barrier in sufficient quantities to help protect the globe, and is usually well tolerated. Cortisone and other steroids have been of great value in combating those inflammatory reactions which cause loss of transparency of ocular structures. They have also probably caused a decrease in the incidence of sympathetic ophthalmia and are certainly helpful in the treatment of this condition in case it does develop. If an ophthalmologist is available, he can worry about the long-term use of cortisone or any of the steroids.

The secondary treatment of ocular injuries falls more ideally within the realm of the ophthalmic surgeon. All of the precautionary measures just mentioned are continued. The eye should be carefully evaluated to avoid hurried and ill-considered treatment. In injuries to the eye alone, time is not a great factor, for there is no danger of shock or exanguinating hemorrhage. Infection is usually prevented by antibiotics. This permits careful evaluation of the extent of the injury and leads to a better judgment and skill in management.

The need for correct management is nowhere better exemplified than in injuries to the eyelid. Severe deformities requiring months of plastic surgery can be prevented by proper initial care. The skin of the eyelids and conjunctiva can be mobilized and shifted readily because it has an excellent blood supply and resists infection while remaining viable. Tarsorrhaphy, canthoplasty and sliding grafts can be used to approximate torn borders of the lids to each other, which, even in more serious injuries protects the eyeball and serves as a basis for future reconstructive surgery. If the torn edges are not joined, the remnants

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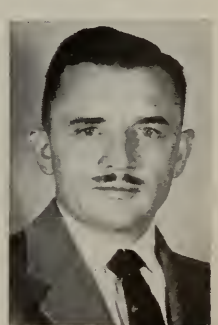

of the orbicularis muscle undergoes contracture, and what might have been originally half an eyelid, or even more, eventually becomes only a small tag of scar tissue laterally and medially, leaving a very extensive notch defect. If, on the other hand, the lid remnant had been ultilized properly, all deformities might have been prevented. The lid margin should be restored in all instances. If there is only a simple laceration, the wound edges can be sutured directly, or if tissue loss is extensive, utilization of sliding flaps can be made from the canthus.

Injuries of the lacrimal canalicular portion of the lower lid are difficult to manage because of difficulty in repairing the canaliculus and the medial canthal ligament.

Management of injuries to the eyeball itself require great judgment. The possibility of an intraocular foreign body must always be suspected. Careful examination should include x-ray studies and Berman localization before such wounds are treated.

Many factors influence the surgical judgment, among which are the type and size of the wound, location of the wound, presence or absence of foreign body, presence of lens injury, intraocular hemorrhage and others. Simple corneal wounds with no prolapse of tissue, if small, can be left untreated surgically. A smooth pressure dressing might lead to a smoother healing. Atropine or pilocarpine might be employed to retract the iris from the wound, depending on its location. Larger wounds should be closed either by direct corneal sutures, a conjunctival flap, or both. Scleral wounds are best closed by fine atraumatic silk sutures.

Lacerations of the cornea or sclera which are accompanied by intraocular damage are more difficult to manage. Iris prolapse, as a rule, should be excised, and the corneal wound closed as early as possible. However, if the prolapse is associated with severe lens injury, repair of iris prolapse should be delayed, even for as long as two or three days. This allows digestion of the lens, permitting linear extraction at the time of excision of the iris and repair of the wound.

The prognosis for wounds over the ciliary body must always be guarded. The outlook is best in clean wounds of the ciliary body where there has been little or no vitreous hemorrhage. A wound perpendicular to the limbus or cornealscleral junction results in less bleeding than a jagged wound, or one parallel with the limbus because of the nature of the blood supply of the ciliary body, where the vessels run from before backwards, parallel to each other. Large, jagged wounds with prolapse usually require enucleation. Enucleation, however, need not be hurried because infection is controlled quite readly by chemotherapy or antibiotics, and there is no danger of shock or hemorrhage. Operation should be deferred until all possibility of associated intracranial injury is excluded. This frequently necessitates x-ray studies of the skull. In more questionable cases, the indications for enucleation are not clear and the problem of sympathetic ophthalmia is of great gravity. The ophthalmologist gains some reassurance from knowing that this rarely, if ever, occurs less than two weeks after an injury. It is also emphasized that 80 per cent of the cases occur within three months after the injury. After the injury, until the third month, extreme care is urged. The most dangerous type of eye is one in which wound healing has been interfered with by incarceration of the iris, ciliary body, or lens material, or by retention of a foreign body within the eye. If such an eye developed subacute inflammation and begins to soften, it presents the most common exciting cause of sympathetic ophthalmia and should be removed. The only treatment of sympathetic ophthalmia is prevention. Indications of sympathetic ophthalmia beginning in the sympathetic eye are photophobia, lacrimations, slight pain, disturbance of accommodation and diminution of vision, aqueous flare, haziness of the cornea with keratic precipitates, cells in the retrolental space, deep congestion, irregular infiltrates of the iris, hazy vitreous, choroiditis and optic neuritis.

The management of intraocular foreign bodies is an extremely complex subject. Emphasis is placed on suspecting intraocular foreign bodies in all cases of penetrating injuries. When demonstrated, localization can be carried out by whatever means one prefers. The site of extraction is accomplished by either the anterior or posterior route. The posterior route should be elected if the foreign body is posterior to the lens, the anterior route if in the anterior chamber. When utilizing the posterior route, the incision is carried only to the uveal tract, the foreign body making its own opening through the choroid, or pars plana, as it is attracted to the magnet. If posterior to the pars plana, diathermy punctures should be made to prevent subsequent retinal detachment. The most feared complications are intraocular hemorrhage and retinal detachment.

Hemorrhage in the anterior chamber after corneal and iris lacerations is not as likely to cause secondary glaucoma as hyphemia in a blunt ocular injury. If the corneal laceration requires surgical repair, the blood is gently irrigated after the sutures are inserted, but before they are tied. If hyphemia occurs after surgi-

cal repair, it is treated like that resulting from a blunt injury. When bleeding of iris vessels follows a blunt injury to the eye, the blood at first mixes with the aqueous, but after a few hours it settles by gravity into the most dependent portion of the anterior chamber. It may remain unclotted and move about with the position of the head. It may be absorbed rapidly in a day or two, or it may form a firm black clot and absorb more slowly. Even with a small hyphemia, the eye usually remains hypotonic as the blood is absorbed. Hyphemia is ordinarily rapidly absorbed, unless there is continuous bleeding or unless clots form in the extravasated blood. If no iridodialysis, or tear of the iris root, accompanies the hyphemia, it is best to instill miotics, such as pilocarpine 1 per cent, bandage both eyes, restrict the patient's activities and gently measure his ocular tension each day. Atropine is usually contra-indicated because it seriously reduces the absorptive area of the iris and the peripheral iris roll blocks the filtration angle. The great danger after a blunt injury to the eye is not the immediate hemorrhage, but in the secondary hemorrhage which can occur one to five days after the initial blow, most often within twenty-four to thirty-six hours. Treatment of secondary hemorrhage consists of instilling miotics, continuation of the bandaging of both eyes, complete bed rest, and frequent tonometry. If the intraocular tension rises rapidly, surgical relief is demanded. Paracenteses, a corneal incision, should be done without delay. After an eye has been contused from a blunt force, such as a fist or elbow, the intraocular tension is very unstable, with periods of hypotony alternating with periods of hypertony. As a rule, this instability passes away without serious effect. Atropine is again contra-indicated, for if it is used, secondary glaucoma may occur from an obstructed angle. Eserine has been reported of value, but epinephine hydrochloride is the treatment of choice for traumatic glaucoma without hyphemia. Secondary glaucoma rarely develops without hyphemia.

In blunt injuries to the eye, occasionally scattered retinal hemorrhages are found and the vision may be nearly normal. This is because torn retinal vessels retract in the retina and their divided ends are closed by spastic contraction. However, twenty-four hours later, the vitreous may be filled with blood because this contraction ceases. It is important in the management of these cases to apply binocular bandages and require complete bed rest for several days after the injury. The macular region is particularly susceptible to injuries and contusions. This may result in a hole in the macula, the small area of acute vision, or cystoid degeneration may develop.

In the pathogenesis of a traumatic retinal detachment a hole may not be torn, or it may be torn and a detachment may not develop. The prognosis of traumatic retinal detachment for vision is generally poor. The technique of repair is similar to that of idiopathic detachment, and all breaks and tears must be located and sealed with diathermy coagulation.

It is realized that the information in this paper is somewhat sketchy. However, the aim has been to present some of the highlights in the treatment of ocular wounds and to present material which might help a worried general practitioner through some of his headaches in cases of ocular injuries.

Nursing Home Construction

A strong program of nursing home construction has been recommended by Russel A. Nelson, M.D., president of the American Hospital Association as one of the best methods for meeting the health care needs of the aged population.

"Nursing home care is central in the problem of care of the aged."

Much of the illness of old age is of a long-term type and new methods of caring for such illness are needed, he said. The general hospital, and its medical staff, is increasingly taking more responsibility for chronic illness, with research in degenerative diseases—so much a part of aging—increasing. However, the general hospital cannot handle the aged's health care alone.

"It may be," Dr. Nelson continued, "that there is need for a strong program of federal financial assistance in the building of superior non-profit nursing home facilities, with special emphasis on non-profit nursing homes incorporated into or affiliated with general hospitals."

Oral Cholecystography

Using Prior Fat Meal and Increased Telepaque Dosage

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THIS STUDY was conducted to ascertain the effect on cholecystographic visualization of the gallbladder of two different variables, particularly on patients with non-visualization with the usual routine examination:

1. The withholding or the administration of a fat stimulus prior to the oral ingestion of Telepaque.
2. The use of Telepaque in the usual single dose of 3 gm. or the double dose of 6 gm. (twelve tablets).

Method Employed

An oral cholecystographic study of 208 cases was done. The examination was varied (Table I) on each of five hospital floors and x-ray films were obtained in the usual manner. All patients received either a fat-free diet or a fat stimulus prior to a single dose of Telepaque (six tablets, 3 gm.). If nonvisualization occurred, some of the patients were immediately given a fat meal stimulus (cholex) followed that evening by a non-fat meal and then either a single 3 gm. or a double 6 gm. dose of Telepaque. Other patients in which nonvisualization occurred received a single or double dose of Telepaque without any fat between examinations.

After cholecystography it is very often assumed that the nonvisualized gallbladder implies a diseased gallbladder.[1-7] In general that is true in 85 per cent of the cases. However, there are other causes of nonvisualization as shown in Table I. It is important to confirm these radiologic findings to eliminate these possibilities to be sure that these are not causing the nonvisualization, since the patient's status will not be improved by surgery under the latter set of circumstances. Since nonvisualization due to biliary stasis may be purely a physiologic condition, surgery would be contraindicated without the presence of pathology in the gallbladder.

Extra biliary and biliary causes of nonvisualization of the gallbladder are listed in Table II.

Of the extra biliary causes, congenital absence of the gallbladder needs no further comment. Failure to take the radiopaque medium may occasionally occur. For example, the nurse may misinterpret orders for a gastrointestinal series and fail to give the patient the tablets, or the patient is not made aware of the association between the tablet ingestion and gallbladder opacification and presents himself for examination without this necessary preliminary.

TABLE I. CAUSES FOR NONVISUALIZED GALLBLADDERS

Extra-Biliary Causes
1. Congenital absence
2. Failure to take radiopaque medium
3. Radiopaque non-absorption due to diarrhea, vomiting, or pyloric obstruction
4. Tumors or masses obstructing cystic or biliary ducts
5. Faulty liver function
Biliary Causes
6. Diseased gall bladder
7. Biliary stasis

Radiopaque nonabsorption due to diarrhea, vomiting, or pyloric obstruction occasionally occurs. All nonvisualized patients are routinely questioned as to whether they had nausea, vomiting, or diarrhea following their dye ingestion. Since Telepaque is absorbed from the small intestine, vomiting does not give the radiopaque an opportunity to be absorbed; whereas, during diarrhea, the radiopaque medium may pass too rapidly through the small bowel to allow absorption. A case of bowel obstruction preventing radiopaque absorption was demonstrated dramatically recently when the first gallbladder film showed nonvisualization, but on closer inspection fine Telepaque particles could be seen still distributed throughout the stomach. A gastrointestinal series was recommended and the patient was found to have an obstructing tumor in the pancreatic head.

Tumors or masses obstructing the cystic or biliary ducts such as carcinoma of the duodenum, pancreas, or metastatic enlarged nodes can produce an obstruction to the passage of Telepaque into the small bowel. Thus, even though Telepaque is absorbed from the small intestine, it does not get into the gallbladder if the biliary or cystic ducts are obstructed.

TABLE II. GALL BLADDER VISUALIZATION WITH VARYING TECHNICS OF PRIOR FAT MEAL AND TELEPAQUE DOSAGE

Hospital Group	Number of Patients	Initial Preparation		Gall Bladder Initially				Repeat Preparation		Non-Visualized Gall Bladder Visualized c		Total Gall Bladders Visualized	
		Prior Fat Meal	Teleqapue Dosage 6 Tabs. (3 Gm.)	Visualized Patients	Per Cent	Non-Visualized	Per Cent	Prior Fat Meal	Telepaque Dosage	Repeat Examinations	Per Cent	Patients	Per Cent
1st floor	49	No	Single	37	76%	12	24%	Yes	Double 12 tabs. (6 Gm.)	8 / 11*	73%	45 / 49	92%
2nd floor	68	Yes	Single	52	76%	16	24%	No	Double	2 / 12*	17%	54 / 68	78%
3rd floor	20	No	Single	13	65%	7	35%	No	Double	3 / 7	43%	16 / 20	80%
5th floor	32	No	Single	22	69%	10	31%	Yes	Single	4 / 10	40%	26 / 32	81%
6th floor	39	Yes	Single	33	85%	6	15%	No	Single	0 / 5*	0%	33 / 39	85%
	208 Total patients treated.												

*Repeat examinations cancelled; 1 each on 1st and 6th floors, 4 on 2nd.

Faulty liver function may prevent the normal metabolism of Telepaque which is selectively excreted in conjugated form with the bile salts, and if these salts are being improperly formed the gallbladder may not be visualized.

A diseased gallbladder is the most common cause of nonvisualization, constituting approximately 85 per cent of the cases of cholecystitis, and this is what most physicians assume is the primary cause of nonvisualization.

Biliary stasis due to a physiological lack of normal stimuli may occur in patients who for one reason or another have restricted fats in their diet for varying periods of time. The gallbladder normally concentrates the bile with the passage of time. Many patients who have been on a low-fat diet are found to have gallbladder bile the consistency of jelly, whereas, the specific gravity of freshly produced bile is lower than that of bile within the gallbladder. If the patient has been on a low-fat diet for a long time, the gallbladder has not been contracting and emptying regularly so that biliary stasis mechanically prevents the radiopaque medium from being absorbed and concentrated in the gallbladder. Thus, if a patient with physiological stasis is maintained on a low-fat diet and nonvisualization is reported from cholecystography, unnecessary surgery may be performed. Perhaps some of these patients should be given a normal diet including fat preceding the cholecystographic examination. In a situation where fats have been withheld from the patient for prolonged periods and nonvisualization occurs, administration of a double dose of Telepaque has also been utilized (Table II).

Results

First, the effect of fat preceding the initial Telepaque dose was tested by comparing the average of the first, third, and fifth floors with the second and sixth floors as shown in Table II. The average visualization with no fat in the initial preparation was approximately 70 per cent (first, third and fifth floors); where fat was used with the initial preparation, it was approximately 80 per cent (second and sixth floors). Thus a fat meal prior to administration of oral radiopaque medium resulted in 10 per cent higher visualization of gall bladders in cholecystography.

Second, the effect of administering a double dose of Telepaque was compared to the single dose. On the first floor versus the fifth, the initial preparation was the same. On the repeat examination, the only difference between the two groups was a double dose preceded by fat on the first floor, and a single dose preceded by fat on the fifth floor. Seventy-three per cent of nonvisualized gall bladders visualized following a double dose of Telepaque preceded by fat as compared with 40 per cent visualization using a single dose preceded by fat. One patient was dropped because it was a surgical emergency which could not wait for repeat examination, so that eight out of eleven, or 73 per cent, were visualized as shown in Table II. The same thing could be determined, that is, the effect of administering a double dose of Tele-

paque over the recommended single dose by comparing the second floor with the sixth. In both cases the initial preparation was the same, the only difference being the single or double dose on the repeat examination was compared with giving fat at the time of the repeat gall bladder examination—fifth *versus* sixth floor. No fat with the initial examination (fifth floor) produced 69 per cent visualization. Fat with

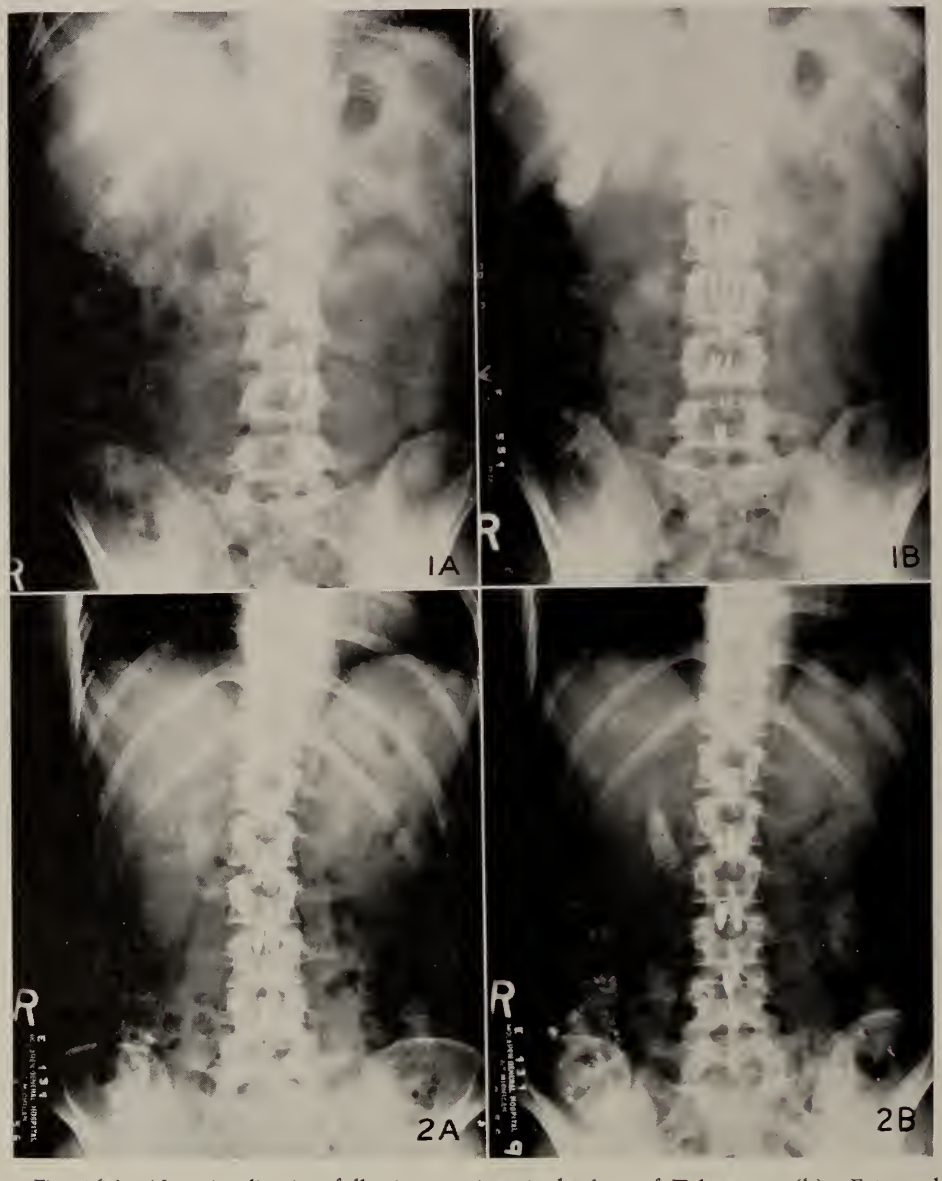

Fig. 1(a). Non-visualization following routine single dose of Telepaque. (b). Fat meal prior to double dose of Telepaque. Well visualized completely normal gallbladder.

Fig. 2 (a). Non-visualization following routine single dose of Telepaque. (b). Fat meal prior to double dose of Telepaque. Moderate visualization of gallbladder showing many cholesterol stones.

nation. Seventeen per cent of the nonvisualized gallbladders visualized with a double dose not preceded by fat, as compared with 0 per cent visualization using a single dose not preceded by fat. These data show that a double dose of Telepaque does increase the degree of visualization and that it is also markedly higher if preceded by a fat meal.

Third, the effect of giving fat with the initial the initial examination (sixth floor) produced 85 per cent visualization. If fat is given with the repeat examination, the total visualization is 81 per cent. On the sixth floor the reason for the zero visualization is that all of the cases which were going to respond had already done so with the initial preparation using fat, and repeating this with no fat on the repeat single dose study actually accomplished nothing. Whereas

on the fifth floor there was no fat preparation, and again, the effect of fat is quite apparent—40 per cent of the nonvisualized gallbladders did visualize. Fat enhances the number of visualized gallbladders, but it makes little difference whether it is administered prior to the initial or repeat Telepaque dosage.

X-rays of two cases of nonvisualization of the gallbladder due to biliary stasis are shown in Figures 1 and 2.

Illustrative Cases

Non-visualization due to biliary stasis:

Case 1.—(Fig. 1a) This patient had a non-visualized gallbladder following a routine dose of Telepaque (3 gm.). The next day a fat meal was given prior to a double dose of Telepaque (6 gm.) and this showed a completely normal gallbladder (Fig. 1b).

Case 2.—(Fig. 2a) This patient had a non-visualized gallbladder after a single dose of Telepaque. The next day a fat stimulus followed by a double dose of Telepaque showed moderate visualization of a gallbladder with many cholesterol stones. (Fig. 2b).

Non-visualization due to non-absorption of Telepaque (pyloric obstruction):

Case 3.—This patient showed a non-visualized gallbladder after routine single dose of Telepaque, but this study was of no significance concerning the status of the gallbladder since all of the radiopaque was seen within the stomach. A gastrointestinal examination revealed complete pyloric obstruction which was demonstrated at surgery to be caused by carcinoma of the pancreas with invasion of the pyloric canal.

Summary and Conclusions

Although the usual cause for nonvisualization of the gall bladder is chronic cholecystitis, stones or other pathological conditions, other factors may also be important.

Of particular importance is the physiological condition of biliary stasis due to lack of the normal stimulus of fat in the diet which the patient has omitted for one reason or another. Therefore, with biliary stasis the administration of a fat stimulus will allow the gall bladder to contract and then allow visualization with the radiopaque. In these latter patients, needless surgery may be avoided.

Cholecystographic examinations were made ten to twelve hours after oral doses of four to six tablets of Telepaque to 208 patients who had either been on a fat-free diet or received a fat meal prior to the administration of the radiopaque substance.

These studies showed that the number of visualized gall bladders is increased appreciably by administering a fat stimulus prior to ingestion of Telepaque. The number of visualized gall bladders is further enhanced if the repeat dose of Telepaque is double the initial dose.

It is suggested that, since some patients do not tolerate fats, the fat stimulus be withheld and administered only if the gall bladder fails to visualize initially. It is also suggested that the double dose be withheld for the repeat examination so that such possible causes of nonvisualization as diarrhea and vomiting may be eliminated. Also for economic reasons, since three of four cases are well visualized with the single dose of Telepaque, the double dose is recommended routinely only for the repeat examination.

Acknowledgments

Miss Tice, and staff of the X-ray Department of the McLaren General Hospital were helpful in the above studies.

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Strip Test for Phenylketonuria

A simple dip-and-read strip test for detection of phenylketonuria offering a greater degree of accuracy than the conventional liquid ferric chloride test is described in *Clinical Chemistry* (5:5, 405-413, October, 1959). These vital tests, generally conducted on the urine of babies, can signal the need for corrective therapy to prevent mental retardation.

Professional Liability Insurance

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LET ME START this article with a challenge. You don't know whether your coverage is adequate or not. You actually do not know the company you are insured with. Perhaps you can recall the name, but do you know anything of its holdings or the manner in which it handles claims? Have you read the fine print? Has the company a well-deserved reputation?

A physician must be aware of the limitations and exclusions of his policy. Purchasing a policy on the basis of price alone is a grave error. Is your Insurance Company located out of State, and if so is it subject to the laws of the state of Michigan? How much insurance should you carry? Does your specialty carry a higher liability factor?

We could be much more constructive if from this point on we would outline all the factors concerned in good professional liability insurance. The first, and by all means, greatest responsibility rests entirely with the medical profession. Our pre- and postgraduate teaching in professional liability has been critically inadequate. The present thinking would indicate courses in the junior year with a review as seniors. This should be followed by a comprehensive analytical study when the doctor joins his county medical society. Every doctor of medicine must know his responsibilities to the patient. He also must know the definite procedures that he must take if suit is brought against him. *If liability exists the patient is entitled to compensation.* That is the purpose of professional liability insurance. If no liability exists, we should be assured that the very best services will be mustered to defeat such despicable practices. We believe this is the only way we can reduce dishonest claims to a minimum.

Having recognized our own responsibilities we should review the prerequisites of good liability insurance:

1. Insurance must be available to all members in good standing.

2. The MSMS Committee to study insurance plans can approve for the memberships on such items as cost, financial strength of the insurance company, limitation clauses, and efficiency as to handling of claims.

3. Insurance must be available to cover individual requirements, such as those of the specialties.

4. An insuring member should be assured that a "Mutual" company does not expose the doctor to assessments.

5. The insurance company's and the doctor's rights to cancel the policy should be carefully reviewed.

6. All out of state companies should conform with the laws governing insurance in the state of Michigan.

7. Although group policies are illegal in this state, individual policies can be prepared with the cooperation of the MSMS which would permit a closer exchange of facilities and compensatory reduction in cost if the expense of protection in this state proved to be low. One company has made such an offer.

8. Your insurance company should meet the requirements of the National Association of Insurance Commissioners.

9. Your insurance company should join with the MSMS in offering every possible aid in the teaching program of our two state universities.

10. Approved insurance companies could be of great help in giving short trend progress reports at our general medical meetings.

Your committee was delegated the duty of analyzing the present trends in malpractice claims in this country. This we have faithfully done, and various recommendations have been made. So far Michigan has escaped comparatively unscathed. The storm is brewing, however, and to ignore it would be turning our back on all the trends of the day. The chairman

Dr. Umphrey is Chairman of the Committee to Review the Problem of Professional Liability.

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is grateful to the members of the committee, and the doctor members are especially grateful to those of the legal profession for their most valuable advice in this difficult problem. Finally, we wish to offer any aid required of us in the new teaching program of our two universities.

Situation Elsewhere

A comprehensive report on the malpractice situation in California was recently made to the committee by one of its members, Mr. George H. Cary, and the committee has recommended that this report be published in JMSMS at an early date.

The committee also wishes to call attention to a recent and most significant contribution to the law on the subject of professional liability, co-authored by one of the members of the committee. This is "The Law of Medical Practice" written by Burke Shartel and Marcus L. Plant, each of whom is a professor of law on the faculty of the University of Michigan. This fine work is published by Charles C Thomas of Springfield, Illinois, and is highly recommended to the profession.

In conclusion, it is recommended to The Council that although the further study of group liability insurance has been committed to the Society's Committee on Insurance, this or a similar committee could continue to be of real value to the Society in (a) watching and reporting on trends and changes in the law relating to professional liability, and (b) the promotion of professional liability prevention measures through education both in the medical schools and among the profession generally.

What's Good For a Cold?

All around the Northern Hemisphere this week, with winter's assault of colds and influenza near its seasonal peak, millions of sniffling, hacking customers went to the corner drugstore to shop for what they hoped would be a cure, or at least a palliative, for their suffering. Whether they called their complaint a cold or catarrh, *die Grippe** or flu, the answer was the same: for none of these illnesses caused by viruses does medicine have a cure. The best that any victim can expect is the relief of some immediate symptoms and unimpeded recovery from the original viral infection before a secondary bacterial infection can cause complications (best known and gravest: pneumonia).

Despite the fact that people swallow an infinite variety of pills, tablets, capsules and syrups, medical scientists are still far from agreed as to which of them is best—or even whether any treatment for uncomplicated viral infections is desirable. A runny nose is an uncomfortable and socially embarrassing symptom, but the increased fluid secretion by the nasal mucosa is, some experts believe, one of the body's defenses against viral invasion. Drying up the mucosa (usually with antihistamines), they say, may simply prolong the battle. The fever that results from many virus infections is also widely regarded as a major defense mechanism, might best be allowed to run its course.

Nature Does Its Best. No physician has yet had a good word to say for the headache and muscle pains of grippe or flu, so mild, painkilling drugs win ready approval. Trouble is that the commonest of these are aspirin and related salicylates—and these also drop the body temperature. Therefore even they may do harm as well as good.

The traditionally most potent fever fighter has been quinine. Thanks to its long and distinguished history as the only effective weapon against the recurrent fevers of malaria, quinine is still highly regarded in Europe and among many older Americans (especially in the recently malarial South) for treating fevers. Last week, in Munich's *Medizinische Wochenschrift*, Dr. Wolfgang-Dietrich Müller damned quinine with the results of a study on thousands of patients in Bielefeld. Among those who took quinine pills at the first sniffle, Asian flu was five to ten times as common as among those who let nature do its best. Quinine, he suggested, may actually be harmful by blocking the body's defense reactions. (In any case, quinine's effect in malaria is against the parasites themselves, so it is ineffective against fevers from other causes.)

Aspirin & Sophistication. In the U.S., such old favorites as Hill's Cascara Quinine (Whitehall Pharmacal Co.) and Bromo Quinine (Grove Laboratories, Inc.) retain a faithful but shrinking following. They have been crowded to the side of druggists' counters by supposedly more sophisticated products of the antibiotic, antihistamine age. A current favorite is Coricidin (Schering Corp.), combining APC with a small enough dose of the anti-histamine Chlor Trimeton be sold without prescription. If the customer does not know what he wants, many druggists recommend this. Competitive runners-up: Dristan (Whitehall) and Super-Anahist (Anahist Research Laboratories). Ascorbic acid (vitamin C) has become popular, though its value is largely unproved.

Customers often ask for antibiotics. Instead of explaining that no antibiotic does any good against virus infections, druggists usually tell them they need a prescription. (Virtually the only antibiotic preparations not on prescription are tablets containing small amounts for sore throats.) They then generally recommend aspirin in one of the proprietary versions of APC on which there is a fat price markup. Though the medical benefits of aspirin are not easily measured, most doctors agree that it does some good, somehow. —*Time*, February 22, 1960.

*In France, *la grippe* originally meant only influenza; Germany's *die Grippe* covers various flulike illnesses; in the U.S., "grippe" is often used for infections intermediate in severity between the common cold and flu.

California Malpractice

George H. Cary, LL.B.
Detroit, Michigan

ACTING under sanction of this committee (Medical-Professional liability), it was my pleasure to discuss the California malpractice situation with several prominent defense counsel at Los Angeles and San Francisco. The purpose of this study was first to determine from the lawyer's viewpoint the real proportions of this admittedly serious situation; second, what is being done to control and improve the matter. Factors of time and my good wife's belief we were on a vacation limited my study of the problem.

Fortunately, the day we arrived at Los Angeles, a luncheon was arranged by my brother-in-law, Don Sessions, vice president in charge of the Los Angeles district for American Insurance Company, with Mr. Harry Parker, senior partner in a leading defense firm, Parker, Stansbury, Reese and McGee. Malpractice is a limited part of their work and is handled principally out of their Orange County office by Mr. Reese. Mr. Parker stated the situation was serious. In fact, he commented, "It was often hard to get full co-operation from doctors since it was no longer unusual for a doctor to be sued for malpractice." This large firm handles cases for insurance companies that write doctors on an individual policy basis. Hence, the remarks seem more important later in contrast to the co-operation from the medical societies given defense counsel handling cases under various group insurance plans.

We found that a substantial part of the Los Angeles doctors obtain malpractice insurance under a group plan handled by a particular insurance agency for the Los Angeles Medical Society. This has been developed over a period of years and was first put into operation under the guidance of the late Dr. Reagan, author of "*Doctor and Patient and the Law.*" The firm of Reed, Calloway, Kirtland and Packard handled the legal work of this agency and a luncheon was arranged later in the week with Mr. Kirtland.

Our time was limited as he was engaged in trial with an important case that had been in progress for over a week. Plaintiff's attorneys were attempting to extend *res ipsa loquitur*, recognized by the California Supreme Court in a broad way, to include an infection following an operation solely based on the theory medicine is now an exact science and modern technique does not permit an infection to follow an operation, except as the result of negligence. The California Supreme Court has accepted *res ipsa* in surgical accident and most injection cases, as well as other situations, but Mr. Kirtland did not expect the appellate court to extend the doctrine to this abdominal infection situation.

Briefly stated, the plan of this agency, with the active coordinated and supervised support of the Los Angeles Medical Society, was invaluable in his opinion to the lawyer handling the defense of these cases. Investigation was complete and handled by trained investigators working solely in this specialized field. Committee medical society handling of the case was not used in the same manner I found in the San Francisco area, but Mr. Kirtland stressed the fact that practically any doctor in the society could be called in for a group meeting to study and testify if necessary. It was interesting to find the meeting in preparation for trial often included dinner and cocktails at the Los Angeles Athletic Club, and in some cases a member of the society supposed to favor the plaintiff might be asked to attend and explain his professional viewpoint to his colleagues.

After lunch I met Mr. Sidney Moss and Mr. Gerold Dunn of Moss, Lyon and Dunn. Graciously giving me most of the afternoon, I was referred by Mr. Dunn to an excellent article in the July, 1957 issue of the Stanford Law Review entitled "The California Malpractice Controversy."

Surprisingly, I found malpractice cases in respect to the size of verdicts were more of a problem in staid old San Francisco than Los Angeles. One would expect sprawling Los Angeles, with its metropolitan district approaching ten million and in many ways resembling Detroit, to be the seat of the trouble. Perhaps Marvin Belli, who is reported to represent the left wing of the plaintiff association NACCA and

practices in San Francisco, may be a factor, but California attorneys do not care to give him this recognition.

Mr. Moss said there were more attorneys taking malpractice cases, and in consequence more cases being filed to harass the doctors. As usual, a large percentage are without merit. Most of these cases are referred to a few trial counsel specializing in the plaintiff malpractice case. An obvious solution is to refuse nuisance value, as it will be impossible for these trial counsel to handle cases without merit, often taking a week or more of trial work if defense counsel force them to try out a large number of their referrals.

Actual figures supplied by Mr. Moss for Los Angeles County will hold substantially the same for the entire area and indicate for 1958, 10,000 personal injury cases were filed, and about 1,000 tried. Of these, 846 reached verdict, with 58 per cent no cause for action, 6 per cent hung and 35 per cent plaintiff. Only 17 (2 per cent) of these cases were malpractice, and the verdicts for plaintiffs totaled $163,375, with a high verdict of $78,000 and a low verdict of $2,100. It seems from these figures that the Los Angeles verdicts are still under reasonable control by defense counsel. However, the increase in suits filed is still a problem for the medical profession.

At San Francisco, Mr. Edward Bragg, claims manager for American Insurance Co., made an appointment for me to talk with Mr. Hoge of Lamb & Hoge, specializing in defense work, and a most fortunate luncheon meeting with Mr. Thomas Hadfield, general manager in charge of the Malpractice Division of American Mutual Liability Insurance Co., also his able assistant, Mr. Callaghan. According to Mr. Hoge, the situation in San Francisco is serious. Suits have not only increased in number, but verdicts often range from $50,000 to $250,000. Various factors are cited, high income and fees of doctors, lack of house calls and personal contact with patients, perhaps in part due to the social trend, including surgical and hospital insurance. Verdicts in San Francisco are high in other personal injury cases, and little credit is given Belli or other plaintiff's attorneys. It was interesting to find a large malpractice settlement was made in a case against Belli arising out of a malpractice case he was alleged to have improperly handled.

American Mutual Liability Insurance Co. write their sole special doctor's policy for the San Francisco area. This includes twenty-three county medical societies, and Mr. Hadfield speaks from seventeen years' experience with this problem. The insurance policy is tailor made to suit the doctor's needs and the coverage is high. The cost is about double our rates, but it gives broad protection in an area of high and numerous verdicts. Their program eliminates the nuisance settlement and forces plaintiff's counsel often to dismiss the suit rather than gamble the expense of trial and appeal. Substantial per diem jury fees give defense counsel an advantage we do not have in Michigan.

Under the plan, each participating county medical society has a committee that includes the insurance representative or lawyer, doctors, ministers and even laymen who review the assigned case to decide whether it has any merit or should be defended. Publicity has been given to the arrangement and many patients claiming a grievance have their case reviewed either with or without employing counsel. This gives the doctor and the insurance company the double advantage of an early settlement without publicity or added fees in cases of merit, and it puts them on notice of potential suit in claims without merit.

All the assistance and co-operation of the Los Angeles Medical Society plan is available. It is felt these committees are restoring public confidence in the integrity of the medical profession. This committee reviews only claims relating to malpractice and makes an impartial decision on the merits. Complaints relating to fees or the conduct of a doctor are handled by a separate committee.

It is the purpose of this arrangement to provide a basis for the quick settlement by the insurance carrier of any claim with merit and to require the carrier to defend vigorously all other claims. It should be noted this may place a burden on defense counsel. Recently the committee had decided a case was without merit, but the doctor, with only $50,000 limits, wanted his case settled, and the jury returned a verdict of $90,000.

In Los Angeles, I had been told to read the case of *Salgo v. Stanford University,* decided in October, 1957, as this case would bring me up-to-date on the subject of *res ipsa loquitur.* It was interesting to find Mr. Hadfield's company spent approximately $35,000 in the defense of this $250,000 judgment. The term vigorous defense takes on some meaning. It is doubtful whether a company writing scattered individual policies would do this, but I believe it was well worth the investment after reviewing the important modern points of law established in this case for California. (Shartel & Plant, *"The Law of Medical Practice,"* Sec. 3.23, p. 144).

What has this to do with Michigan? It would appear under the present trend of our Supreme Court, as evidenced in *Higden v. Carlsbach*, and other decisions, that we are entering a new era in malpractice similar to the California problem. The doctrine of *res ipsa loquitur* has been adopted in Michigan in the *Higden* case, and it is my personal opinion that the situation in the next five years will resemble Los Angeles, but not San Francisco. There is no reason to believe we will have many six figure verdicts from Michigan juries.

Attorneys have handled these cases for the last forty years with limited coverage written as a rule for the individual physician under this general formula:

1. Most attorneys refuse to take malpractice, or at least it has to be an extremely clear case.

2. Ninety per cent of the cases with merit can probably be defended as a matter of law due to the inability of the plaintiff to get expert testimony from the same school and in the same locality.

3. If a question of fact is raised, the jury will resolve any doubt in favor of the overworked doctor, who does most of his work for charity.

4. If the case has some merit and is not dismissed before trial, it can be settled for the special damages and a small attorney's fee, or practically nuisance value.

These old concepts will have to be severely modified. Cases of merit should be settled for their fair value and other cases defended without nuisance payment; otherwise inroads on the time and reputation of the medical profession can hardly be avoided. Defense counsel must work vigorously to establish the new rules and boundaries of liability in a battle that will become in many more cases a decision for the triers of the facts. Decisions, such as the *Salgo* case in California, setting the limits and defining the instructions for the jury, will become extremely important.

It is fortunate that Professor Shartel and Plant of the University of Michigan law school have just published a new text, *"The Law of Medical Practice."* This new work brings us up-to-date on the limited decisions in Michigan, and clearly points out the decisions in California and other states that may influence future Michigan decisions regarding malpractice.

It was published last month by Charles C Thomas at Bannerstone House, 301-327 E. Lawrence Ave., Springfield, Illinois, and has been simultaneously published in Canada and England. It is primarily a book for the doctor and covers every facet of professional legal liability in addition to malpractice.

Retrolental Fibroplasia

A few months ago, the Department of Ophthalmology of Mercy Hospital, Cadillac, was requested to bring up to date the regulations and ideas regarding the use of oxygen in premature babies, with special reference to retrolental fibroplasia. A poster was prepared, printed and posted. M. D. Bentley, M.D., Cadillac, prepared the poster, "Oxygen Use in Infant Care," and offers the use of it to any who may wish to use it.

OXYGEN USE IN INFANT CARE

Controlled study shows conclusively that the length of time the premature infant is kept in an oxygen-enriched environment is THE important factor in the production of retrolental fibroplasia.

Intelligent use of oxygen can be the means of saving the lives of hypoxic babies. It would be unwise to arbitrarily deny adequate oxygen to those babies because of possible injury to the eyes of some.

"There is *no* concentration of oxygen in excess of that in air that is not associated with risk of retrolental fibroplasia.

"Infants of multiple birth appear to be significantly more susceptible to retrolental fibroplasia than infants of single birth.

"The following recommendations are made:

"1. Oxygen should be prescribed only on medical order (except in emergency).

"2. Oxygen should not be administered routinely.

"3. The length of time a premature infant, particularly an infant of multiple birth, is kept in an environment containing oxygen in excess of that of air should be kept to an absolute minimum, consistent with the clinical indications of anoxia.

"4. When oxygen therapy is clearly required, it should be prescribed on an hourly basis and the concentration should be as low as possible.

"5. Ordinarily, the indications for supplemental oxygen are general cyanosis and dyspnea. The urgency of treating these symptoms must rest with the physician's clinical judgment.

"6. Oxygen concentration must be determined by means of an oxygen analyzer every four hours or oftener if necessary.

"7. Infants of four pounds or over are less likely to acquire retrolental fibroplasia. However, indescriminate use of oxygen in any infant, regardless of weight, carries the possibilities of producing retrolental fibroplasia.

(Prepared by the Department of Ophthalmology, Mercy Hospital, Cadillac, Michigan)

L. Fernald Foster, M.D.

The March number of THE JOURNAL of the Michigan State Medical Society is respectfully dedicated to the memory of L. Fernald Foster who served the Michigan State Medical Society, the medical profession of Michigan and the people of Michigan with his almost every waking hour for thirty-nine years.

On the cover we are reproducing the picture which he probably considered his best. It was a charcoal drawing done by Mr. Coppin, renowned portrait painter in Detroit. The original hangs in the gallery of the Michigan Medical Service building in Detroit.

Doctor Foster inscribed his name upon the records of Michigan Medicine and of the Michigan State Medical Society indelibly. He was a born secretary with the keen knowledge and appreciation of the thousands of details which go to make an efficient and accomplished secretary. The Bay County Medical Society selected him as secretary during his first year in practice in Bay City and he continued in that position for thirty-nine years taking out only one year during which he served as President.

In 1936, the Council of the Michigan State Medical Society selected him as layman, medical secretary, because in addition to the active secretary and administrative director, the need was for a physician who could carry the message of medical organization, medical ambitions, and medical philosophy to the membership in a direct personal contact—as well as from a secretarial office.

Fern Foster liked people. He was a keen, well trained, and most efficient pediatrician. He knew doctors and their problems from contacts over many years. He accepted the secretarial job as one needing to be done and he went to the grass roots with it, visiting probably every county medical society and district society in the state of Michigan many times, personally carrying the messages, the ideas, the conclusions of the administrative officers, the legislative authorities, the considered conclusions of the pioneer thinkers and policy makers which make a medical society work. He considered the most effective method of carrying on his work was by direct contact in preference to writing letters. He served the Michigan State Medical Society for twenty-three years in this capacity, traveling hundreds of thousands of miles and wearing out a car practically every year.

The last three years he also served as full-time president of Michigan Medical Service, having given up his practice in Bay City and moved to Detroit to assume these new duties in addition to continuing as State Society Secretary. He had been one of the active organizers of the Blue Shield program, he knew its problems and was ever willing to devote his time in an attempt to solve them, to smooth the way and to make the prepaid medical care program work through personal contacts with the administrators, the membership and the doctors who were rendering the service.

We pay tribute to L. Fernald Foster and his memory.

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Adequate Patient Hospital Care

We have coined a new term to cover a service which has been mentioned in this JOURNAL many times during the last several years; to cover a condition about which *Hospitals*, the Journal of the American Hospital Association, published a symposium called "Progressive Patient Care."

The Health Information Foundation of New York City sent copies of that symposium to us and probably to many others. For many years the HIF has been publishing comments, surveys and reports about the increasing utilization of hospitals, especially at a time when Blue Cross and Blue Shield had reached their acceptable stature ten years ago. Not only has there been an increase in the number of patients entering the hospitals, but a slight increase in the number of days they stayed.

It is now generally recognized that one person out of every eight will be hospitalized during each year. However, the constant urge has been to build larger and better hospitals. Surveys told us there were not enough beds to care for those patients who should be using them—a complete new picture had developed. The hospital, instead of being a place where a patient went to die, then became a place where patients went to get well. The vast majority of hospitals, while they had different types of rooms and wards for the selective use of those who could pay, have universally offered full nursing care while the patients were in the hospital.

In recent years, attention was called to the fact that there were not enough nurses, nurses' aides and nurses assistants to give individual attention to each patient. Desperately ill patients were compelled to have private nurses. That was the rule and still is—when nurses can be secured. The extremely ill patient needs from one to three private nurses to serve during the day and night—to be always on hand ready to take care of an emergency—to give the patient the treatment and attention advised or ordered. Even then there was a delay many times when the nurse had to chase down the hall for a syringe, a hypodermic needle, an ampule of something for shock, medication for pain, a bed pan or urinal.

Hospital beds were filled to capacity, many times having patients in the halls. Under these circumstances, the internist, the generalist, or the surgeon who had a sudden call—a patient with a heart attack, one in diabetic coma, one with a ruptured gangrenous appendix—the doctor could not get a bed because they were all full; that is, unless he could discharge one of his own patients who was on the road to recovery. About four or five years ago, it was estimated that approximately one third of patients in our major hospitals could be ambulatory and could be moved into self-care units; and some could even be sent home under proper supervision.

In the July, 1956, issue of THE JOURNAL, page 830, the suggestion was made that in connection with establishing a new area unit in Detroit, which involved the four major hospitals and 240 acres of slum land, instead of building new top class hospitals as was contemplated, some really modern nursing homes, senior citizen homes, and convalescent homes, be built to accommodate this surplus of patients. Instead of costing the patient or Blue Cross around $35.00 or more a day, the patient could be cared for at a cost from $6.00 to $10.00.

"The Patient Gets A Break"

The Saturday Evening Post for January 2, 1960, had an article entitled "The Patient Gets a Break." *Medical Economics* for December 21, 1959, had an article entitled "Progressive Hospital Care—What It Means for You." Those members who are interested in the best "adequate" medical care their patients can get, should read these articles. They are eye openers and place this question of hospitalization squarely before the public. We have had many comments and queries already.

In January, 1952, at St. John's Hospital, a 170-bed hospital at St. Paul, Minnesota, the administrator, Carl Ave'Lallenant, established a complete modification of the usage of the beds and facilities. He arranged in one room with no reference to disease, just illness, a complete emergency situation with eight beds, two nurses and aides. Into this room, he put his intensely ill patients. The nurses were there all the time and the house physician or the attending physician were there many times during the day.

These patients immediately began to respond and to improve within two to three days. The constantly present staff and the immediate contact could give these seriously ill patients the best possible care.

The second unit in this hospital was "general care halls" which included the patients who in most parts of the country are being taken care of in hospital beds as general bed patients. Department number

three was a much larger one, twenty patients per nurse, but just as important for a proper balance, where patients were not confined to bed. They had their own clothing, took care of their own bath and toilet requirements, went to the cafeteria or dining room for their meals and had television, cards and recreation. Section number four, also with a couple of nurses on hand, was the rehabilitative care unit where the necessary training and teaching for handicapped or crippled is carried out.

In section number five, still under the hospital supervision and contact with visiting nurses, the patients are sent home. These are mostly patients with long continuing illnesses such as stroke, heart, and like ailments. A vocational therapist also visits them and sees that they continue their treatment.

In March, 1956, Edward J. Thorns, of Memorial Hospital in Manchester, Connecticut, had the same idea and developed a similar program. In April, 1957, the hospital opened a unit for the seriously ill, and a do-it-yourself unit for the ambulatory. A year later, the rehabilitation unit was added. Many hospitals throughout the country are now considering these programs.

Last year, in discussing the entirely and completely new insurance program which the Michigan State Medical Society had developed for "the old age and retired citizen with meager income and inadequate finances," Blue Shield found that a program could be built for a few cents over $3.00 per month. At that time, it was suggested that hospital care would not be solely a hospital service.

Michigan would not be able to reach that low figure because of the utilization of hospitals as was then being done. Several of the Blue Cross programs in other states recognized nursing homes and convalescent homes and authorized payment up to $10.00 for them.

On December 28, 1959, the Michigan Insurance Commissioner approved a program by which Michigan Hospital Service can do an experimental job limited to about 1,000 cases, where the nursing or convalescent home feature will be employed, and home care will be given by the use of visiting nurses or technicians. This program is experimental and is limited to one year.

Hospital Utilization

In its report up to September 30, 1959, Michigan Hospital Service gives the following figures. For the first quarter of 1954, there were 1,005 hospital days per thousand subscribers. That item was given for each quarter, and in the second quarter of 1959 (the last one reported), there were 1,237 hospital days per thousand subscribers. In just five and a half years, there was an increase of over 23 per cent.

At the same time, the average days per entry, that every subscriber stayed in the hospital in 1954 was 7.28, then 7.36, 7.39, 7.60, 7.64 and 7.70. These two items, without considering any increase in costs of hospital days, such as labor, would account for a very serious increase in hospital cost.

The hospital cost of the "intensive care" or the adequate care program, which we have outlined has been figured out in a number of instances, and there are quite a number of hospitals doing it. The first charges were $52.00 to $55.00 a day for the intensive charge and scaling down to $20.00 a day for the rehabilitation and fourth stage in the hospital. The final results were that patients went home one day earlier in the majority of cases than under the previous method of hospital care. This intensive service is costly—but it saves lives.

There is an intensive service unit in operation in Battle Creek Community Hospital which has been going for a little over four months. The installation was assisted or financed by the Kellogg Foundation. The reports from the doctors who are using it are most glowing in every way. The patients are getting extraordinarily good care and are responding much quicker than under the old method of hospital service plus private nursing or special nursing. A small daily extra charge is made for the two or three days that the patients are in this unit, but it saves practically every one of them several whole days of special nursing which now costs about $57 a day.

The unit has not been functioning long enough to make any final report, but just the one private nursing item is a big saving. One or two days of private nursing saved cuts down the total costs by that much. The hospital is also considering the establishment of a third unit which will be partially self-care and immediate recuperation before being discharged from the hospital.

Blodgett Memorial Hospital in Grand Rapids has had an intensive care unit for two years, in which time they have taken care of over 450 patients. The experience with this arrangement has been very satisfactory and its advantages far outweigh any possible disadvantages.

Within the past year they have also developed an intensive care unit for the pediatric section. These units are probably the first in Western Michigan.

A query at University Hospital in Ann Arbor shows

that plans are practically completed for an intensive service unit, the location being the most important factor now. It is believed that an ambulatory or self-help unit is not necessary because a similar service is now available in the nature of a hotel where the patients are kept while ambulatory. These editorials were written January 9. On January 15, an announcement was released from Detroit that the hospital authorities and the city governing board had approved final steps in clearing out 240 acres and over 600 families from the area near the four big hospitals in Detroit to construct the most impressive medical center in the world.

What an opportunity to do some far-reaching research in hospital construction and utilization; supplying accommodations for senior citizens, areas for ambulatory or self-help patients; and many other experiments in the most modern thought on hospital utilization and construction.

We are entering a new decade, and progress is fast.

Michigan Chiropody Association Takes Issue

In the October, 1959, number of THE JOURNAL of the Michigan State Medical Society, we published a paper prepared by Michael E. Ellis, M.D., of Grand Rapids, entitled "The Case for Medicine to the People." A prominent doctor in Grand Rapids, who had read the paper, sent it to the editor for publication. In reviewing the paper, the editor failed to see anything unfavorable to other professions.

On January 5, a communication was received from the Executive Secretary of the Michigan Chiropody Association, calling attention to the fact that the article classed chiropodists as "cultists." He also called attention to action of the AMA Judicial Council some twenty years ago that: "the practice of chiropody is not a cult practice . . . the Council can see no reason to declare the teaching of chiropodists by members of this organization (AMA) to be unethical."

He continues to say:

"Recognition of chiropody is by no means unanimous. The profession is, however, generally recognized by a number of state and federal agencies and groups. These include the Veterans Administration which pays chiropodists in private practice for services rendered; and which employs chiropodists in VA hospitals throughout the country; the Armed Services which commission chiropodists and have done so since the time of Abraham Lincoln who commissioned Isachaar Zacharie as Chiropodist General of the United States Army; Medicare which pays for services by chiropodists; the Michigan State Department of Mental Health which employs chiropodists in six of the mental health Institutions."

We communicated with Dr. Ellis, and he is willing to withdraw the term "cult" as referring to chiropody. The AMA House of Delegates at its last two sessions recommended that we cease to use the word "cult" in referring to any group in the quasi-medical field. We were much interested in the historic information presented, and hope this misunderstanding can thus be explained.

Council Election

Harold J. Meier, M.D., Coldwater

The Council, at its annual meeting, January 29-30, 1960, elected Harold J. Meier, M.D., Councillor of the Third District, as Chairman of The Council to replace A. E. Schiller, M.D., of Detroit, who resigned as Chairman on account of health conditions, but remains as Councillor of the First District in Detroit.

Harold J. Meier was born in Grand Rapids in 1904. In 1906, the family moved to Grand Ledge, where he attended public schools and graduated from high school in 1922. He entered the University of Michigan at that time as a premedical student and in 1925 entered the medical school, from which he graduated in 1929. He was a member of Alpha Omega Alpha and Phi Beta Phi fraternities.

After graduation, Dr. Meier spent two years in hospital training at Columbia and Children's Hospitals in Milwaukee, paying special attention to orthopedics. He was in group practice in Burlington, Wisconsin, for five years and in 1936 located in Coldwater, where he did general practice and general surgery. The years from 1942 to 1945 were spent in the armed forces, and he was discharged with the rank of major. Following his army service, he continued further training in his specialty, taking short courses and basic science courses with some residence work in clinical orthopedics. For the past seven years, his practice has been confined to surgery of trauma.

Dr. Meier has been active in organized medicine since 1947, serving on various state committees and has been an alternate delegate and then delegate from Branch County since 1938. He was elected Councillor for the Third District in 1955. He has two daughters and three grandchildren. Dr. Meier has been interested in numerous civic and other affairs in Coldwater.

"Fern was a Doctor's Doctor, Parent's Doctor, Patient's Doctor."

By Howard T. Knobloch, M.D.

Whenever I reminisce about Doctor Foster, a veritable fusillade of vivid memories passes in review before my eyes.

My initial contact with Fern originated by a letter of inquiry concerning the possibility of forming a joint association in the practice of Pediatrics in Bay City. At this time, in October, 1939, I was serving a residency in Pediatrics at the Northern Michigan Children's Clinic in Marquette, Michigan, under the masterful clinician, M. Cooperstock, M.D. Dr. Foster had decided that because of the enormity of his practice and the heavy demands of time exacted by the State Society, and his infant brain child, Blue Shield, it would be wise to create a partnership. He was particularly interested in me as a possibility after learning from "Dr. Coop" that I was a native Pennsylvanian and had served as a house officer at the Children's Hospital in Philadelphia, where he had acquired his post-graduate training in Pediatrics.

Our first and only interview resulted after mutual agreement by correspondence and occurred on a Sunday in November, 1939, at his home on McKinley and Johnson. I had quartered at a tourist home Saturday night and on my arrival at Foster's was privileged first to meet his lovely wife, Katie, who made me feel welcome as the flowers in May. She informed me that there was a raging epidemic of scarlet fever and Fern was swamped with house calls. About two hours later, the good Doctor entered the scene brimming with unbridled zest and appearing fresh as a daisy, after making six visits with five to go.

* * *

MY FIRST IMPRESSION OF this dynamo of energy, stamina and boundless drive was one of utter amazement and sheer admiration. Here was a man with the poise and aplomb of a Mickey Mantle in batting practice facing the firing squad with a shrug and a chuckle.

His quip was, "This is just a routine Sunday, and the poor kids can't help it."

He chided me for not reporting in to his bailiwick Saturday night and asked me to go along on calls with him. After three hours of concentrated conversation, work and a conducted tour jam-packed with action, we returned to his home. I was fired with enthusiasm and had already decided that Bay City was my locale of destiny.

By mutual agreement and verbal contract we pledged a partnership on the spot with a few wrinkles to be ironed out. I was fully convinced à la the great Foster magnetism that, far and wide, Fern was unapproachable as a man of integrity and a physician of high ideals and merit.

One of the first bits of advice my boss bequeathed me was not to call him Louis (his first name) after expressing a fond antipathy for this epithet. The entire first evening was spent in acquiring a de-

MARCH NUMBER DEDICATED TO L. FERNALD FOSTER, M.D.

tailed indoctrination into the practice of medicine in these environs as rendered brilliantly by Doctor Foster.

My exhausted state of reverie was severely jolted into abject reality when at the end of the harrowing day L.F.F. casually mentioned that he planned to attend a convention of the AMA in Atlantic City two days hence for only a matter of two weeks. This meant that I would rudely be thrust into the breach of full pediatric practice all alone, on my very own, without his most able assistance and guidance. My first timorous impulse was to run for the Pennsylvania hills, but being quite bereft of pecunia and a practical person, I was easily dissuaded and L. Fernald assured me that, "There really is nothing to it, especially for a man of your background and training."

* * *

DOCTOR FOSTER IS INDUBITABLY recognized as the "Father" of Pediatrics in the Bay City area, having been the first and only pediatrician for the period of 1920 to 1927 when Dr. McClain entered here in the specialty of medical care of infants and children. Doctor Foster was the first member of the American Academy of Pediatrics in Bay City and encouraged me to take my examinations as soon as possible. This enabled me to become the second member of this specialty in May, 1941. His pleasure in knowing I had passed my examinations was heightened immeasurably by a humorous incident which happened at the Children's Hospital in Chicago, when I accidentally set off the fire alarm at six A.M. Sunday in the nurses home. His comment, "Just a country boy in the big city."

Fern Foster, always a pioneer at heart and a rugged individualist of the highest caliber, inaugurated his medical career in Bay City with unswerving determination and tenacity of purpose. Immediately, he made his magnetic personality and forceful influence felt. At first, he was not openly received and his endeavors were fraught with obstacles and obstructions in the form of direct opposition and head-on collision by the older competing practitioners. However, with his always radiant personality and persistent diplomacy he exerted a constant powerful, positive momentum and within a few years all barriers were lifted as a fog before the sun, and he received rapidly the full acclaim and recognition of all of his colleagues. His practice grew by leaps and bounds to a very thriving and flourishing one within five years.

One of his early trademarks was the new red Cadillac which he cherished. Like himself, his car was at all times a model of cleanliness, neatness and unblemished spotlessness. His car received continual expert attention and was washed and polished at least once a week.

Fern was always a fashion plate in sartorial dress and a true Beau Brummel DeLuxe. His clothes were impeccable in taste, quality, modernity, neatness and color combination. He seldom ever wore one suit more than one day. He was always well shaven, with not a hair out of place and shoes well shined, regardless of weather, time of day or type and degree of work engaged in.

* * *

FERN WAS A DOCTOR'S Doctor, a Parent's Doctor and a Patient's Doctor all rolled into one. His bedside manner and art of medicine were irreproachable. He was especially adept and skillful in placating disturbed parents and inspired the utmost confidence regardless of the severity and critical nature of a child's illness. All the parents revered his advice and counsel as Biblical truths and would follow him to the ends of the earth. His explanations of illness were practical, logical, simple and easily understandable and were geared to the degree of intelligence of the parent. It was truly uncanny to see him analyze a complicated situation and almost invariably come up

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About This Number

Following the death of L. Fernald Foster, M.D., on May 27, 1959, The Council of MSMS recommended that a future number of the JOURNAL of the Michigan State Medical Society should be dedicated to Doctor Foster.

In planning the material for this March number, it was decided not to eulogize Doctor Foster, as was done in the JOURNALS at the time of his death, but rather to relate some lesser-known, personal facets of his service to medicine. Such an article—warm and friendly—was written by Howard T. Knobloch, M.D., long-time associate of Doctor Foster at Bay City.

with the correct answer. He was at all times a champion fireman and could completely satisfy the most irate parent with the gravest complaint. He would merely gaze unperturbed out of the window with a warm smile and a hearty "Ho-ho-ho" and in a matter of minutes or seconds the parents would reverse entirely from an attitude of deep anger to one of complete happiness and compliance. His proclivity in persuasiveness and reassurance left an indelible and lasting impression on the parents and their progeny.

* * *

IN FACT WHEN HE asked me to make house calls on his old patients, I could sense their keen disappointment and lack of satisfaction in my efforts as representing a very poor substitute at my best.

Fern had the patience of a saint and was tireless in his endeavor, satisfying with unhurried answers the long lists of questions and interrogations regardless of their importance. He sincerely felt that any call by a parent was justified and important if that person honestly felt so. He greatly enjoyed making home calls and welcomed this special opportunity to understand the emotional, psychic and physical climate and background for the patient's illness. He wielded an exceedingly sharp sense of perception and used to the utmost his special senses and intuitive skill as an expert diagnostician. To him, humility was a true virtue and when confronted with a person inclined to arrogance he would remark, "You can always tell a man from Harvard, but you can't tell him much."

He was imbued with the philosophy that in medicine a physician renders a service unbiased by the desire to sell a product but dedicated to rendering a decision to the patient's best interests and state of health. His fees were constantly reasonable and commensurate with a patient's ability to pay, and he felt strongly that monetary benefits in medical practice were secondary to the personal satisfaction derived from helping the suffering and the salvaging of life. If a doctor rendered his best efforts, the financial rewards would take care of themselves.

* * *

A MOST COMMENDABLE attribute of Fern was his powerful and unrivaled ability to hold his practice despite the tremendous demands of time in absentia. Even yet, his brother practitioners never cease to comment with utter amazement on this almost unbelievable feat of accomplishment. Fern's intense drive and versatility in handling with ease many major duties is little short of the miraculous. His stamina was most inhuman when one recalls that he would drive to all parts of the state delivering speeches and attending meetings in adverse weather for several days and nights and on his return would with a few hours of sleep engage in a full day of arduous medical practice, punctuated with a myriad of telephone calls pertaining to not only medical practice but affairs of state, county and city. It seems as though everyone relied heavily upon his sagacity to solve personal, medical, social and civic problems—and he invariably would. At all times he was affable, gracious, polite, courteous, convivial and cheerful to those who sought his help. It was his firm conviction that the busiest and hardest working person always could find time to perform additional tasks and duties.

* * *

IT WAS AN ELECTRIFYING experience to hear Fern pick up the telephone and respond with a most melodious and mellifluous soothing "Hellooo," peculiar only to him. This characteristic phonation occurred regularly at all hours. I know of no one else who could awake from a deep sleep and instantly supply sharp, crisp answers to involved perplexing questions as though his mind was thoroughly exercised by several working hours. He seemed always to be at his calm, cool and collected best when under fire and when the going was roughest.

As a lasting tribute to his position as the King of Secretaries, his fellow physicians showed their esteem by keeping him on the job as County Medical Society Secretary for thirty-three long years. He considered the County Society as the keystone and fountainhead of organized medical practice.

Fern was a true epicurean and enjoyed savory nutriments as well as anyone. He would travel far and wide for a good steak and often would order seafood from a special culinary establishment in Delaware.

As a chain smoker par excellence, Fern showed most unusual control in being able to smoke a cigarette one half to three quarters of the way without spilling the ashes except at the precise time of their disengagement into an ash tray.

* * *

ONE OF THE OUTSTANDING memories of my practice with Doctor Fern revolves about tonsil and adenoid extirpation by kitchen table surgery before the days of Blue Cross insurance. This ordeal was an eminently successful, well-planned operation and highly scientific in all aspects. The children were well selected and were examined carefully the day preceding operation and had a urinalysis, hemoglobin, bleeding and clotting time done where indicated. They were well conditioned psychically, and the parents prepared the surgical settings.

Dr. Urmston in most cases was the surgeon and he schleutered the tonsils, resulting in negligible blood loss. Dr. Urmston carried sterilized instruments and the suction machine while Dr. Foster furnished the anesthetic equipment. Fern Foster was a master anesthetist with children and the best, to my knowledge. He carried them deep enough to please the operator but with plenty of safety margin and they always awoke within a few minutes following the operation. He always left the parent with a printed list of instructions to follow post-surgically, and in many cases requested a nurse to help the mother. His particular delight was the office T and A operation, and for this purpose he had a most elaborate setup.

To my knowledge, of all the hundreds of T and A's done by this method, the mortality rate was zero, and the morbidity rate was practically zero. In fact, my older two children had their tonsils and adenoids removed on the kitchen table. Fern contended that the positive arguments for this modus operandi were the safety factor, the patient awakened in his own bed, with his mother at his side and slept in his own bed the night before and the night after, and was spared the startling and shocking sight of masks, gowns, strangers and complex operating room equipment. I am sure his patients had many fewer nightmares following their throat surgery. He would wax eloquent and a gleam would appear in his eyes while he described the operation in detail to a parent.

His similes were always commonplace and crystal clear when he illustrated by words like "unhinging and unscrewing the tonsils, and it's like shelling peas from a pod or peeling a chicken gizzard."

Fern was a champion of the art of placation of a parent. Especially adept was he in relieving the anxieties of a distraught mother with an infant possessed of colic. After a few moments of conversation, a mother would show almost complete relaxation and a most happy expression of relief. Undoubtedly, the colic would evaporate into thin air directly. He was especially skillful in talking to parents who had a child with congenital heart disease, and his comfort in this situation was most effective. His management of upper respiratory disease and pneumonia and otitis media were also masterpieces, with results not too much less effective than those in comparison following the era of specific antibiotics. His success with problems concerning vomiting, diarrhea and fever were well nigh phenomenal. Special prescriptions for cough, colic, diarrhea, worms and fever originated by Fern were avidly copied and utilized by his colleagues.

His keen sense of humor was a striking attribute, and regardless of the unctuousness of any situation, he could always uncover a humorous incident to lessen the gravity and suspense.

* * *

FERN WAS ESPECIALLY PROUD of the student nurses he taught at Mercy Hospital, for in all of his many years of instruction not one ever failed to pass her State Board examinations. He gave unstintedly of his time, not only in this field, but also he was extremely active in civic affairs of various interests.

He was exceedingly enthralled by the many facets of the Fire Department and was awarded a special badge of merit. He attended all the fires when possible and helped greatly in the choice of fire engines and equipment.

He served ably on the School Board locally and was quite active in promoting the PTA organization at Washington School.

He was intensely interested in sports locally, statewise and nationally, attending many high school football games, Detroit Lions, Red Wings and Tiger sports events. He would recall with a happy sparkle his rabid enthusiasm about the Bay City baseball team in the days of Ki Ki Cuyler when he attended almost every game.

He fostered state and local interest in Crippled Children and Rheumatic Fever programs.

Doctor Foster was deeply imbued with a feverish conviction of the individual's inalienable human rights to his basic freedoms when applied in a constructive manner. One freedom especially important to him was the patient's right to choose the physician of his selection. He was diametrically and unalterably opposed to socialized medicine in any form. This torch he carried throughout life, and it became stronger and stronger with the passage of time. The Government did not buy groceries, clothes, furniture or homes for the people, so why should it buy medicines and medical care, except for selfish aggrandizement of power politics. Besides, the staggering and stupendous cost of such a malicious undertaking would destroy personal initiative and make income taxes oppressive and unbearable. In addition, the inferior service rendered would turn back medical progress to the medieval ages.

* * *

HIS ONE GREAT WEAPON to block this confiscation of human rights was perhaps the highest highlight of his illustrious contributions to organized medicine, viz: Blue Shield and Blue Cross.

I feel deeply indebted to Doctor Foster in many ways for the help he has very unselfishly given to me.

He aided me materially in beginning pediatric practice by his display of courage, wisdom and foresight and by his moral support. His greatest gift was that of imparting to me a working knowledge of the true art of medicine. I had learned the scientific know-how, but its practical application was another matter. In my association with Fern, I was enabled to establish the all-important contacts with my fellow doctors, hospital administration and personnel and the parents of prospective patients.

His positive personality and character traits have greatly conditioned and influenced my attitudes, reactions and responses in my practice and daily life. He has been an inspiration to me in my public speaking engagements and in handling many tasks and problems confronting me.

L. Fernald Foster was a thoroughbred champion, man, doctor, statesman, diplomat, friend, advisor and humanitarian.

"Friendly, Helpful, Kindly"

I first met Dr. Foster many years ago, when I was the guest of the Bay County Medical Society and he was its secretary. I noted even then the smoothness and efficiency with which he conducted the proceedings of the Society.

During the many years that followed and particularly after he became the secretary of the State Society, our contacts were many but in our official capacities and as close personal friends, one could not help but admire the smoothness and efficiency with which he conducted the meetings, both large and small, in which the affairs of our State Society and the welfare and health of the public were concerned. He was punctilious and efficient, but always friendly, helpful and kindly in his approach.

It was my privilege to be of service to him in a professional capacity, and I can testify that he was a very cooperative patient, but he had to carry on Society matters even in the hospital.

I was so happy when he accepted the presidency of Michigan Medical Service, and was able to serve nobly during a very trying and critical period.

The medical profession of Michigan and of the nation are all the better off because Fern Foster lived and gave so much of himself.

He has gone on, but his good works live on as his enduring monument!

Louis J. Hirschman, M.D.

"Fern Helped Journals"

An ancient fable reminds us that "honest men esteem and value nothing so much in this world as a real friend." Fernald Foster proved himself such many times over, not alone to me, but to the many State Medical Journal editors in those trying days of the early '40's.

Fern Foster's contributions to organized medicine reached far beyond the boundaries of his adopted State of Michigan. His capacity to organize and direct was early recognized in the reorganization of the Cooperative Medical Advertising Bureau and the formation of its successor, the State Medical Journal Advertising Bureau. Much of the improvement which has been accomplished in the final product of our State Medical Journals is due to Fern Foster's leadership in developing the biennial Journal Conference of the Bureau.

The cordial handshake, the smile, the jovial remark which characterized this fellow Kappa Sigma endeared him to me and made him indeed a real friend. I sorely missed his presence at our national medical gatherings during the final months of his valiant struggle for his survival.

The unselfish utilization of energy for his fellow physicians and his perseverence to maintain the highest ideals of our profession were a never failing inspiration to me.

Stanley B. Weld, M.D., *Former Editor, Connecticut Medical Society Journal*

Michigan State Medical Society

Annual Session of the Council

January 29-30, 1960

HIGHLIGHTS

- Annual Reports of the Secretary, Treasurer, and the Editor were presented, thoroughly discussed by Reference Committees and approved (see pages 463-470).
- The Auditor's Report for the year 1959, and budgets for 1960 were approved (see page 470).
- Reports of the three Standing Committees of The Council (County Societies, Finance, and Publication), meetings of January 28, 1960, routinely were referred to Reference Committees, and approved by them and The Council with minor amendments.
- H. J. Meier, M.D., Coldwater, was elected Chairman of The Council to succeed A. E. Schiller, M.D., Detroit, who resigned as Chairman but remains Councilor representing the First District.
- Secretary D. Bruce Wiley, M.D., Utica; Treasurer Wm. A. Hyland, M.D., Grand Rapids; Editor Wilfrid Haughey, M.D., Battle Creek, were re-elected for the year 1960.
- Progress Report on Michigan Hospital Service (Blue Cross) was presented by MHS President John N. Lord of Detroit.
  Progress Report on Michigan Medical Service (Blue Shield) was presented by MMS President G. Thomas McKean, M.D., Detroit.
- The Presidential Program (five-year plan) was the subject of a progress report by President Milton A. Darling, M.D., Detroit, and President-Elect K. H. Johnson, M. D., Lansing
- Veterans Administration Home Town Medical Program: a new contract effective April 1, 1960, was approved, subject to the same reservations expressed by the Michigan State Medical Society when the 1959 contract was renewed.
- 1959 MSMS House of Delegates Resolution Number 26 urging that geriatrics chairs be established in the two medical schools in Michigan: letters from Dean W. N. Hubbard, Jr., M.D., of University of Michigan, and Gordon H. Scott, Ph.D., Wayne State University, indicated that the resolution met with his favor but that operating funds were needed to accomplish the purpose of the resolution.
- Relative Value Study: A letter from the Wayne County Medical Society requested that The Council take no action on approving or disapproving the RVS should that study be reported before the House of Delegates Annual Session, September, 1960. Discussion pointed out that the study would not be ready prior to the 1960 House of Delegates session, and the Wayne County Medical Society request was approved.
- Appointments: (1) Richard M. McKean, M.D., Detroit, was appointed MSMS representative to the University of Michigan research project on electrolyte balance; (2) MSMS Committee to Meet With Michigan Funeral Directors Association to discuss ambulance driver education and regulation: P. T. Mulligan, M.D., Mt. Clemens, Chairman, Harry A. Towsley, M.D., Ann Arbor, H. W.

Harris, M.D., Lansing; (3) Nominations to National Foundation for its state committee on health scholarship program: A. Jackson Day, M.D., Frederick J. Fischer, M.D., and Robert A. Sobel, M.D., all of Detroit; (4) MSMS delegate-alternate to Michigan Health Council: R. W. Teed, M.D., Ann Arbor, as delegate and K. W. Toothaker, M.D., as alternate; (5) K. H. Johnson, M.D., Lansing, to Advisory Council of Michigan Practical Nurses Association; (6) A committee composed of the President, President-Elect, Chairman of The Council, and Secretary was appointed to meet with Executive Director Wm. J. Burns to discuss office procedure and delineate staff duties.

- Speaker J. J. Lightbody, M.D., Detroit, reported that the Committee to Cooperate with National Blue Shield held a meeting on Sunday, January 17 with the National Blue Shield representatives and that considerable ground had been laid for future study by the joint committee. Next meeting would be held on Sunday, February 14. R. L. Novy, M.D., Detroit, and Donald H. Stubbs, M.D., Washington, D. C., were elected co-chairmen of joint study committee. The Speaker also reported that the House of Delegates Committee on Financial Structure (O. K. Engelke, M.D., Ann Arbor, Chairman), had begun its function and will hold its first meeting on February 16.

- The Council instructed that the quarterly reports to delegates, issued in 1959, shall be continued in 1960.

- Meeting dates changed: The date of the 1964 Annual Session was moved up to the week of September 20 in order not to conflict with a city-wide Shriners convention; the date of the 1961 Michigan Clinical Institute was changed to the week of March 5, in order not to conflict with the Chicago Medical Society Conference.

- Honor for Wilfrid Haughey, M.D., Battle Creek: Fifty years ago, Dr. Haughey was a member of the AMA House of Delegates. Suggestion was made that this matter be invited to the attention of the Michigan delegates to AMA House of Delegates so a fitting recognition might be arranged in June, 1960, at AMA convention.

- MSMS Group Life Insurance Program: progress report indicated that as of January 26, a total of 1,383 members was insured, with $12,857,000 insurance in force. Ten death claims had been paid, totaling $69,500, with one pending.

- The following committee reports were presented: (1) Child Welfare Committee, meeting of November 5; (2) Relative Value Study Committee, November 5; (3) Prevention of Highway Accidents, November 12; (4) Tuberculosis Control Committee, November 18; (5) Geriatrics Committee, December 2; (6) Committee on Scientific Work, December 9; (7) National Defense Committee, December 9; (8) Postgraduate Medical Education Committee, December 10; (9) Liaison Committee with Health Insurance Council, December 16; (10) Rheumatic Fever Control Committee, December 16; (11) Maternal Health Committee, January 7; (12) Legal Affairs Committee, January 7; (13) Geriatrics Committee, January 16; (14) Medical Care Insurance Committee, January 20; (15) Committee to Meet With Michigan Funeral Directors Association, January 20; (16) Liaison with Michigan State Board of Registration in Medicine, January 13.

- Report of Legal Counsel included Opinions on (1) whether total health and accident premium can be regarded as a medical deduction for income tax pur-

poses—opinion was that only the health insurance portion of the premium is deductible; (2) can parents under the age of twenty-one grant permission to do surgery on their child—opinion was that parents can grant permission regardless of their age; (3) legality of a nurse administering anesthetic on a fee-for-service basis, if not under the supervision of a doctor of medicine—opinion was that a registered nurse can lawfully administer anesthetic but only under the personal and direct supervision of an M.D.; if this is not the case, the operating physician becomes responsible; (4) opinion that county society mediation committees should be available to insurance companies the same as to any individual (which opinion was approved by the Reference Committee and by The Council).

- Public Relations Counsel's Report included progress of medical bills before the Michigan Legislature; House of Delegates resolution re medical student recruitment program; request for authority to purchase two motion pictures; progress report on film of new MSMS headquarters building; and plans for meeting with Congressional leaders May 3-4.

- Michigan Health Commissioner A. E. Heustis presented three matters (1) report on paralytic polio in Michigan; (2) improved local needy county health departments; (3) improved program for the care of the aged. The Council went on record as supporting the three projects provided compulsory vaccination as a precedent to enter school is not an invasion of one's Constitutional rights.

- Progress report on new MSMS headquarters: W. R. Jarratt and Richard Wood of the office of Minoru Yamasaki & Associates gave a review on construction progress on the new MSMS headquarters building; mechanical and engineering work is proceeding in the basement of the building; the precast aggregate surface concrete roof vaults and support columns are being formed in Detroit under close supervision of the architect; as soon as completed and seasoned, they will be transported to the building site and quickly installed. The matter of landscaping and irrigation system was referred to the Big Look Committee for study and report.

- Upon recommendation of the Finance Committee, The Council earmarked $1.00 per member's dues for the year 1960 only, to the Beaumont Memorial Foundation, for the improvement and furnishing of the Beaumont Memorial on Mackinac Island.

- The Council referred to Blue Cross and Blue Shield the request that they adopt the policy of coverage for spouses of deceased members of MSMS in the physicians' group contract (#40,000).

- The Council approved the recommendation "that the Publication Committee of The Council assume responsibility as the Editorial Board for "The Journal"; that all editorials shall be submitted to the members of that Committee; that it is the intent of this action that the Publication Committee, acting as the Editorial Board, assume with the Editor the responsibility for all editorials printed in "The Journal" and shall act in a consultative capacity for other items in "The Journal."

- The Council approved the recommendation of the Publication Committee that a new publication on economic currents be inaugurated and be sent to approximately 1,000 members of medical and related organizations, to contain in graphic form latest economic information on medicine.

SECRETARY'S ANNUAL REPORT—1959

TO: The Council of the Michigan State Medical Society:
I herewith submit the annual report of the Secretary for the year 1959.

MEMBERSHIP

The Michigan State Medical Society membership for 1959 showed a total of 6,652 members including 45 military members, 352 Associate members, 297 Life members, 84 Retired members and 2 non-resident members. The total paid membership was 5,872 with net dues of $351,606.00. The 1959 membership once again established a new record for the Society. The number of members with unpaid dues for 1959 was 19, the lowest in history.

DEATHS DURING 1959

I must regretfully report a total of one hundred and twelve deaths among members during the past year.

Bay County—Joseph C. Grosjean, M.D., Bay City; Walter S. Stinson, M.D., Bay City; Lars W. Switzer, M.D., Saginaw; James W. Wilcox, M.D., Bay City.

Calhoun County—Manley J. Capron, M.D., Battle Creek; John E. Cooper, M.D., Battle Creek.

Delta County—Arthur J. Carlton, M.D., Escanaba.

Dickinson-Iron County—Geron Frederickson, M.D., Iron Mountain.

Genesee County—Arthur C. Blakeley, M.D., Detroit; Max R. Burnell, M.D., Flint; John T. Connell, M.D., Flint; Southard T. Flynn, M.D., Flint; Kendall Hooper, M.D., Flint; Edwin P. Vary, M.D., Flint; Orill N. Reichard, M.D., Flint.

Grand Traverse-Leelanau-Benzie—Fordyce H. Stone, M.D., Beulah.

Hillsdale County—Carl L. Davis, M.D., Hillsdale; Elihu A. Martindale, M.D., Chelsea; Harry C. Miller, M.D., San Diego, California.

Houghton-Baraga-Keweenaw—George F. Brewington, M.D., Las Vegas, Nevada.

Ingham County—Raynold J. Cook, M.D., Lansing; Leonard L. Henry, M.D., East Lansing; George R. Landy, M.D., Lansing; Hugh R. Meyer, M.D., Lansing; Frank Stiles, Jr., M.D., East Lansing.

Ionia-Montcalm—Alfred E. Hollard, M.D., Belding; Charles H. Peabody, M.D., Youngstown, Ohio.

Jackson County—Wayne A. Cochrane, M.D., Jackson; Frank J. Gibson, M.D., St. Petersburg, Florida.

Kalamazoo County—James W. Barnebee, M.D., Kalamazoo; Ralph G. Cook, M.D., Kalamazoo; Ralph B. Fast, M.D., Kalamazoo; Ralph W. Shook, M.D., Kalamazoo; Walter J. Siemsen, M.D., Kalamazoo.

Kent County—George H. Baert, M.D., Grand Rapids; William L. Bettison, M.D., Grand Rapids; Earle J. Byers, M.D., Grand Rapids; Harry R. Eggleston, M.D., Grand Rapids; Nicholas E. Lanning, M.D., Grand Rapids; Lemoyne I. Unkefer, M.D., Comstock Park; Carl W. Uthoff, M.D., Grand Rapids.

Lapeer County—David H. Burley, M.D., Almont.

Lenawee County—W. B. Hornsby, M.D., Clinton; Horace H. Loveland, M.D., Escanaba; Philip P. Sayre, M.D., Onsted.

Livingston County—Bernard H. Glenn, M.D., Fowlerville.

Luce County—Earl H. Campbell, M.D., Newberry

Marquette-Alger—Benzion C. Baron, M.D., Munising; Foster A. Fennig, M.D., Marquette; Paul C. LeGolvan, M.D., Washington, D. C.

Mason County—Roger S. Morris, M.D., Ludington.

Mecosta-Osceola-Lake—Louis L. Peck, M.D., Barryton.

Midland County—Charles N. Giering, M.D., Midland.

Monroe County—Thomas A. McDonald, M.D., Monroe; Olin E. Parmelee, M.D., Lambertville.

Muskegon County—Axel W. Anderson, M.D., Twin Lake; Norman A. Fleishman, M.D., Muskegon; Lunette I. Powers, M.D., Traverse City.

North Central Counties—Martin A. Martzowka, M.D., Roscommon; Gordon L. McKillop, M.D., Gaylord.

Oakland County—Edward V. Howlett, M.D., Pontiac; James A. Morton, M.D., Pontiac.

Oceana County—Louis P. Munger, M.D., Hart; Fred A. Reetz, M.D., Shelby.

Saginaw County—Robert F. T. Jaenichen, M.D., Saginaw; E. G. Schaiberger, M.D., Birch Run.

Shiawassee County—Carleton A. Harkness, M.D., Owosso.

Washtenaw County—Frank H. Bethell, M.D., Ann Arbor; Edward A. Cary, M.D., Ann Arbor; Harold A. Miller, M.D., Saline; Herman H. Riecker, M.D., Ann Arbor.

Wayne County—Raymond B. Baer, M.D., Detroit; Sydney K. Beigler, M.D., Detroit; Albert E. Bernstein, M.D., Detroit; Alexander W. Blain, M.D., Detroit; William H. Bradshaw, M.D., Detroit; William J. Cassidy, M.D., Detroit; Robt. H. Clifford, M.D., Detroit; Milton D. Comfort, M.D., Flat Rock; Alexander Cruikshank, M.D., Detroit; Paul W. Dubois, M.D., Detroit; Carl A. Fettig, M.D., Grosse Pointe Park; L. Fernald Foster, M.D., Detroit; Fordus V. Hand, M.D., Detroit; LeRoy C. Harris, Jr., M.D., Baltimore, Maryland; Wesley Harrison, M.D., Detroit; Arthur L. Higbee, M.D., Detroit; A. E. Hillenbrand, M.D., Detroit; Harold A. Horkins, M.D., Detroit; Werner Kersten, M.D., Detroit; Harry Kirschbaum, M.D., Detroit; Charles W. Knaggs, M.D., Detroit; Hartman A. Lichtwardt, M.D., Detroit; Nur M. Malik, M.D., Detroit; Emil V. Mayer, M.D., Detroit; M. Ruth McGuire, M.D., Detroit; John D. McKinnon, M.D., Highland Park; William O. Merrill, M.D., Detroit; Julius Michels, M.D., Detroit; Edward J. O'Brien, M.D., Detroit; Grover C. Penberthy, M.D., Detroit; James D. Rogers, M.D., Wyandotte; Eugene H. Roney, M.D., Detroit; Thomas Sage, M.D., Detroit; Frederic Schreiber, M.D., Detroit; Clarence V. Smith, M.D., Detroit; D. F. Strohschein, M.D., Detroit; Cleary N. Swanson, M.D., Detroit; Albert G. Walters, M.D., Detroit; Frank A. Weiser, M.D., Detroit; John G. Williamson, M.D., Dearborn.

Wexford-Missaukee—Philip H. Paye, M.D., Cadillac.

ORGANIZATIONAL ACTIVITIES

1959 ANNUAL SESSION

The past year the Annual Session was held in Grand Rapids with a total attendance of 3,085. This includes 1,516 doctors of medicine including thirty-five from out-of-state. The General Assembly type of program was continued.

MICHIGAN CLINICAL INSTITUTE

The thirteenth Michigan Clinical Institute was held in Detroit, March 10 through 13, 1959. The total registration was 2,975 including 1,511 doctors of medicine. Again the Operating Room Nurses Conference was held in conjunction with the MCI as well as the Seminar for Residents, Interns and Senior Medical Students. Michigan's Foremost Family Physician, seven other members of MSMS serving as presidents of national medical associations and eleven honorees received special awards for distinguished services to medicine and the people of Michigan at a testimonial luncheon held during the MCI.

ANNUAL SECRETARY'S-PUBLIC RELATIONS SEMINAR

The 1959 County Secretary's-Public Relations Seminar was held on January 31-February 1, in Detroit and was attended by 226, an increase over the previous year.

SECRETARY'S LETTERS

As a part of the Society's general educational and informational program for individual members and for component County Societies, during the year 1959 five Secretary's Letters were issued, three to all members and two to County Society Officers. These informational bulletins were in addition to the monthly issues of THE JOURNAL with its scientific articles and informative news items. In addition, eleven Legislative Bulletins were issued to keymen during the 1959 legislative sessions to keep the membership informed of activities in the State Legislature pertaining to the practice of medicine. Also, a special letter to all members regarding the Business Activities Tax was issued during the year.

COMMITTEES

Again, time and space preclude the listing in detail of the many activities of all the committees contributing to the splendid programs of the State Society. The accomplishments of the committees of the Society were achieved at the expense of many hours of personal sacrifice on the part of their M.D. personnel. During 1959 a total of 102 meetings were held by our eighty-two committees. Practically every meeting was covered by your Secretary or Executive Director or one of the staff members. A total of 602 Society members gave freely of their time to attend these meetings and assist in the operational activities of the State Society. Too much commendation cannot be accorded the committee members who contributed so generously to develop and execute constructive programs—both scientific and economic for the public welfare and to maintain the position of leadership enjoyed by the Michigan State Medical Society in the field of progressive medical planning.

NEW SERVICES FOR MEMBERS

To add to the fine Health & Accident Insurance plan available to members of the Michigan State Medical Society, during 1959 a group life insurance plan was formulated and placed in operation. Response has been gratifying from the membership and claims already have been paid. Your Society is constantly reviewing the activities of other state and national associations and studying services provided by them. Many of these programs may be adapted to the needs and desires of the MSMS members, at some future date when fully studied and a systematic appraisal has been made by a special committee of the Society.

Also, during 1959 work was begun on the new MSMS Headquarters Building in East Lansing and the cornerstone was laid during a ceremony on September 27. It is anticipated that occupancy of the new headquarters will be completed during the summer of 1960. This new headquarters will provide more modern facilities in a prestige location and aid in the development and execution of additional services to all members.

FINANCES

An audit of the Society's books covering twelve months was completed by Auditors Knostman & Smith as of November 30, 1959. This has been submitted to the Finance Committee for study and is available to any member of the Society for perusal at the Executive Office, 606 Townsend Street, Lansing, Michigan. A brief summary of the audit produces the following information:

Assets:	
Cash	$ 38,366.18
Accounts Receivable	30,367.37
Investments	166,629.49
Property and Equipment	273,550.72
Other Assets	2,062.28
Total Assets	$510,976.04
Liabilities:	
Accounts Payable	$ 14,374.90
Society Equities:	
(Reserved for Special Purposes)	
Public Education Reserve	$ 23,527.22
Public Education Program	19,651.34
Public Service Account	8,683.54 CR
Professional Relations Account	9,134.49 CR
Rheumatic Fever Control Program	3,275.12
Building Maintenance Fund	4,936.60
New Headquarters Fund	125,188.04
New Headquarters—Under Const.	159,334.14
General Society Equity	178,506.71
	496,601.14
Total Liabilities and Equities	$510,976.04

It should be noted that the financing of the New MSMS Headquarters Building now under construction involves the securing of additional funds from a commercial bank at a favorable rate of interest and the temporary use of the MSMS Public Education Reserve which also stands as an obligation of the MSMS to be eventually re-established.

THE JOURNAL

The following financial information relative to THE JOURNAL is found in the annual audit report of Knostman & Smith. Income was $152,615.26 which is $25,040.26 over the estimated budget for 1959 (this included $8,747.63 from allocations of members' dues). Expenses were $143,794.88 which was $16,219.88 over the estimate for 1959. These figures however, result in a net gain for the year of $8,820.38 on JOURNAL activities.

1959 HOUSE OF DELEGATES

The Ninety-fourth Annual Session of the Michigan State Medical Society's House of Delegates was held in Grand Rapids, September 27-30, 1959.

The House of Delegates:

1. Adopted with thanks the Speaker's remarks; the President's remarks, the President-Elect's remarks; the report of Delegates to the American Medical Association: the report of Woman's Auxiliary to Michigan State Medical Society; the report of the Michigan State Medical Assistants Society; and the amended report of the Reference Committee on the Michigan Medical Service report.

2. Approved the amended report of the Reference Committee on Annual Reports of The Council including recommendations (a) to send MSMS representatives to Washington, D. C., in 1960 on Michigan Day; (b) to arrange Councilor Conference prior to the 1960 Annual Session; (c) to have an evaluating team visit those county medical societies that request same. The Annual and Supplemental Reports of Committees of The Council were approved, with commendation.

3. Adopted Annual Reports of House of Delegates Committees: (a) Permanent Advisory Committee on Fees; (b) Committee on Committees; (c) MCIC Study on Alternate Methods of Payment to Non-participating Physicians. Took no action on (a) Report of Study Committee on Term of Councilor; and on (b) Annual Report of Ad Hoc Study Committee on Regional Election of MMS Board Members, pending action of Liaison Committee with Blue Shield Medical Care Plans.

4. Adopted Annual Reports of all Standing Committees and of all Special Committees of The Society except one recommendation of the Mental Health Committee re membership on Michigan Medical Service Board of Trustees.

5. Approved presentation made by the Chairman of the Blue Shield Medical Care Plans (except Item 5, page 7 re National Account Agreement; the House of Delegates recommended to Michigan Medical Service that it adopt this Agreement) and referred the entire problem of relationship of Michigan Medical Service and the Michigan State Medical Society to a Special Liaison Committee with the Blue Shield Medical Care Plans (a committee of the House of Delegates).

6. Adopted Resolutions concerning: (a) Memory of the late L. Fernald Foster, M.D.; (b) Kalamazoo State Hospital's Centennial; (c) Freedom of Choice of Contract in Michigan Medical Service (as amended); (d) Hospital Committee Reports, prevents subpoena (referred to Legal Affairs Committee); (e) MMS Board of Directors: publish nominations for; (f) MSMS Sponsorship of Michigan Medical Service; (g) MMS Board of Directors: Maximum Term of Members; (h) Adoptions; (i) Geriatrics Chairs in Medical Schools (as amended); (j) House of Delegates' Committee to Study Mal-practice (as amended); (k) Itemization of Blue Cross-Blue Shield Premium Notices (as amended); (l) Civil Defense Training Programs (as amended); (m) Medical Student Recruitment (as amended); (n) Other Professions: Reduced Fees to Senior Citizens (as amended); (o) Commendation to Medical Care Insurance Committee; (p) Delegates' Handbook Listing of MSMS Officers.

7. Adopted Substitute Resolutions concerning: (a) Modification of M-75 to $5,000 Income Limit; (b) Reaffirming 1957 Statement of Principles (as amended); this resolution was referred to the Liaison Committee with Blue Shield Medical Care Plans; (c) MMS: Participating and Non-participating Physician to be paid in same manner (as amended); (d) Creation of House of Delegates' Standing Committee on Constitution and Bylaws; (e) Michigan Medical Service: Family Income Determination; (f) Transmitting Council minutes to Delegates; (g) Transmitting Council minutes to County Society Secretaries; (h) Michigan Medical Service: Study of Remuneration for Prolonged and/or Complicated Cases (referred to Liaison Committee with Blue Shield Medical Care Plans); (i) MMS: Determining Total Annual Family Income.

8. Referred to MSMS Maternal Health Committee a Resolution re Pre-natal Health Program of Michigan Department of Health.

9. Took no action on the following Resolutions: (a) MMS: Promote Sale of Deductible and Limited Service Contracts; (b) House of Delegates to Approve Prepayment Plans Contracts (referred to Liaison Committee with Blue Shield Medical Care Plans); (c) American Association of Physicians and Surgeons Membership; (d) Spring Session of MSMS House of Delegates (ruled out of order).

10. Disapproved the following Resolutions: (a) Portion of Dues Rebated to County Society for Local Public Relations Program; (b) MMS: Changes in Public Advertising.

11. Amended the MSMS Bylaws: (a) Chapter 16, Section 2: Dues Delinquency Date Change; (b) Chapter 6: Transposing Sections 11 and 12; (c) Chapter 16, new Section 4: Reduced Dues for Younger Members so Privileged by their County Medical Societies; (d) Chapter 11, Section 3: Eliminate Cancer Control Committee; (e) Chapter 11, Section 1-(e): Change name of Legislative Committee to Legal Affairs Committee; (f) Chapter 4, Section 4: Include Death as Reason for Refund of MSMS Dues; (g) Chapter 11, Section 5: Membership on Ethics Committee; (h) Chapter 12, Section 3: Election of Four Delegates to A.M.A. in Alternate Years (as amended); (i) Chapter 12, Section 3: Terminology of "meeting" and "session"; (j) Chapter 6, Section 6: Investigative Procedures; (k) Chapter 7, Section 3: Investigative Procedures.

Adopted Substitute Resolution Concerning Bylaws' amendments to Chapter 10, Section 7 re Editor to be Elected by House of Delegates, but referred this matter to a special House of Delegates Committee to Study MSMS Publications.

Deferred for one year proposed amendments to Constitution: (a) Article X, Section 1 re Election of Secretary by House of Delegates; (b) Article X, Section 1 re Election of Treasurer by House of Delegates; (c) Article X, new Section 3 re Voting Privileges of Secretary and Treasurer. Tabled for one year proposed amendment to Bylaws, Chapter 11, Section 2 re membership on Postgraduate Medical Education Committee.

Amended and referred to a special House of Delegates Study Committee a proposed amendment to Bylaws, Chapter 9, Sections 1-2 and Chapter 10, Section 2 re Councilors to be members of House of Delegates. Other investigations were referred to this Special Committee.

Disapproved Resolutions re amendments to Bylaws: (a) Chapter 6, Section 6: Investigation of Misconduct; (b) Chapter 16, new Section 4: Deferment of Dues; (c) Deletion of Chapter 7 re Grievance Committee; (d) Chapter 6, Section 7, to delete "dismissal" in last sentence; (e) Chapter 5, Section 3-(e) re Active Membership for Armed Forces, Public Health Service, and Veterans Administration Officers.

12. Elected the following officers:

(a) Wm. A. Scott, M.D., Kalamazoo, as Councilor of the 4th District (1961)—to fill the unexpired term of Ralph W. Shook, M.D., deceased.
(b) B. M. Harris, M.D., Ypsilanti, as Councilor of the 14th District (1964).
(c) R. J. Mason, M.D., Birmingham, as Councilor of the 15th District (1960)—to fill the unexpired term of D. Bruce Wiley, M.D.
(d) Wm. Bromme, M.D., Detroit, as Councilor of the 18th District (1964).
(e) W. A. Hyland, M.D., Grand Rapids (1961), J. S. DeTar, M.D., Milan (1961), C. I. Owen, M.D., Detroit (1961), and O. J. Johnson, M.D., Bay City (1961), as Delegates to the American Medical Association.
(f) J. R. Heidenreich, M.D., Daggett (1960—to fill the unexpired term of Ralph W. Shook, M.D., deceased), W. W. Babcock, M.D., Detroit (1961), G. B. Saltonstall, M.D., Charlevoix (1961), J. M. Wellman, M.D., Lansing (1961), and B. M. Harris, M.D., Ypsilanti (1961), as Alternate Delegates to the American Medical Association.
(g) K. H. Johnson, M.D., Lansing, as President-Elect.
(h) J. J. Lightbody, M.D., Detroit, as Speaker of the House of Delegates.
(i) H. F. Falls, M.D., Ann Arbor, as Vice-Speaker of the House of Delegates.

13. Elected Archer A. Claytor, M.D., Saginaw, as Michigan's Foremost Family Physician for 1959.

14. *Presented Fifty-Year Awards to:*
Corwin S. Clarke, M.D., Jackson; Henry Cook, M.D., Flint; Ferdinand Cox, M.D., Jackson; Walter L. Finton, M.D., Jackson; E. V. Joinville, M.D., Detroit; John S. Lambie, M.D., Birmingham; Ralph W. Ridge, M.D., Wyandotte; John T. Sample, M.D., Saginaw; and Emma L. W. Sheppard, M.D., Fenton.

15. Elected to Special Memberships:

(a) *Thirty-nine members to Life Membership*—Branch County: Walter J. Bien, M.D.; Calhoun County: William R. Chynoweth, M.D., and James R. Jeffrey, M.D.; Genesee County: John J. Kurtz, M.D., Robert D. Scott, M.D. and Nell M. Ward, M.D.; Houghton-Baraga-Keweenaw County; John J. Burke, M.D., Raymond E. Hillmer, M.D. and Alfred LaBine, M.D.; Ingham County: Oscar H. Brugel, M.D. and Alfred J. Drolett, M.D.; Jackson County: Randall M. Cooley, M.D., Starr L. Kline, M.D. and Miar J. McLaughlin, M.D.; Kalamazoo County: William C. Huyser, M.D., William G. Hoebeke, M.D. and R. A. Morter, M.D.; Kent County: Walter W. Oliver, M.D.; Lapeer County: Daniel J. O'Brien, M.D.; Muskegon County: Charles B. Fleishmann, M.D.; Northern Michigan Counties: Frederick C. Mayne, M.D.; Oakland County: Frank B. Gerls, M.D. and Campbell Harvey, M.D.; Wayne County: Charles W. Balser, M.D., Clarence A. Berge, M.D., Perry S. Black, M.D., Julius Y. Burnstine, M.D., Laurence A. Chrouch, M.D., Harold E. Clark, M.D., John F. Demaray, M.D., Harry H. Goldberg, M.D., Howard Havers, M.D., Ellis R. Green, M.D., Charles Lemmon, M.D., Harold L. Morris, M.D., Clarence V. Smith, M.D., Benjamin R. Springborn, M.D., Peter L. Warner, M.D., and Henry R. Carstens, M.D.

(b) *Fourteen members to Retired Membership.*—Calhoun County: Kenneth B. Keeler, M.D.; Houghton-Baraga-Keweenaw Counties: Charles R. Smith, M.D.; Ingham County: Octavius M. Randall, M.D. and Abraham A. Steiner, M.D.; Kent County: Laurence W. Hayes, M.D., Leland M. McKinley, M.D. and Carl A. Sustrong, M.D.; Livingston County: Jesse J. Hendren, M.D.; Muskegon County: Carl A. Wilke, M.D.; Oakland County: Lionel N. Merrill, M.D.; Wayne County: William E. Jahsman, M.D., Harley L. Krieger, M.D., Bruce C. Lockwood, M.D. and Gordon B. Myers, M.D.

(c) *Seventy-one members to Associate Membership.*—Kalamazoo County: Howard C. Lavender, M.D.; Oakland County: Kenneth E. Corrigan, Ph.D., H. S. Hayden, Ph.D.; Washtenaw County: Francis J. Allaire, M.D., James B. Beatty, M.D., John R. Beljan, M.D., Ralph L. Brandt, M.D., Jack L. Court, M.D., Charles A. Cunningham, M.D., Richard S. Dillman, M.D., Richard H. Earle, M.D., Charles H. Eid, M.D., William R. Feltner, M.D., Richard C. Field, M.D., James B. Fish, M.D., Paul W. Gikas, M.D., William C. Grabb, M.D., Gordon J. Grout, M.D., N. Harry Hing, M.D., F. Deborah Johnson, M.D., Robert F. Johnston, M.D., Robert H. Joseph, M.D., W. W. Kimbrough, M.D., Frederick J. Kingery, M.D., Charles F. Krausse, M.D., Edwin H. Kroon, M.D., Richard A. Kutcipal, M.D., Theodore R. Lamott III, M.D., Edwin H. Lewis, M.D., Jose J. Llinas, M.D., Marvin J. Lubeck, M.D., W. Frank Matthews, M.D., Jack D. McCarthy, M.D., John M. McGehee, M.D., Leo J. Miedler, M.D., Earl M. Mumford, M.D., Thomas C. Murphy, M.D., Harold A. Oberman, M.D., John O'Sullivan, M.D., Roy Patterson, M.D., Frank N. Ritter, M.D., George W. Schemm, M.D., Bernard S. Silverstein, M.D., Iver F. Small, M.D., Purcell Smith, Jr., M.D., David B. Stevens, M.D., Clarence H. Tannel, M.D., John B. Wear, Jr., M.D., Jack C. Westman, M.D., Eugene I. Winkelman, M.D., and Lawrence H. Wilk, M.D.; Wayne County: John G. Bayles, M.D., Sidney Berman, M.D., H. L. Buller, M.D., H. Neill Calkins, M.D., Jacob L. Chason, M.D., Emerson O. Evison, M.D., Lionel Finkelstein, M.D., Barbara A. Hardt, M.D., Lewis G. Harmon, M.D., Lawrence J. Jamison, M.D., W. H. M. Johnson, M.D., George M. LeGalles, M.D., Philip L. Lathrop, M.D., Elizabeth Levy, M.D., Richard L. Novack, M.D., Robert L. Schaefer, M.D., Thomas O. Sage, M.D., Burton L. Schmier, M.D., Elwood A. Sharp, M.D., and John E. Webster, M.D.

PUBLIC RELATIONS

In 1959, the Michigan State Medical Society carried out its manifold functions, fully aware of the necessity of public understanding of Medicine's goals and purposes.

The House of Delegates, The Council and all MSMS Officers were acutely aware of the need for achieving better relations with our many publics.

Specifically, the MSMS PR effort was directed into eleven areas of activity:

1. Press Relations. Through personal contact of the PR staff and individual doctors, media personnel were impressed with the fact that MSMS always provided desired news information and background material. Innumerable requests for help were received and efficiently handled.

The rapport between media and local county medical societies was increased in many instances where the 1958 MSMS Media Code of Co-operation was adopted by the local society and the communication media. The code is designed to help the practitioner and the reporter tell a medical story within the framework of medical ethics and is strongly recommended for adoption by county medical societies.

2. Communications. Countless news stories were supplied to Michigan newspapers, radio and television stations. The activity of an important Society is news and through press releases, your PR staff has made it possible for an ever increasing number of the public to know and understand organized medicine on the local and state level.

Through special news releases to editors of county society bulletins, MSMS has informed its members of status of current projects and other items of interest.

3. Medical Student Recruitment. The 1959 House of Delegates instructed that the PR Committee develop a program to encourage the highest quality students to enter the medical profession. Such a plan will be reviewed by the Committee at its January meeting and will be implemented during 1960.

4. Science Fairs. The public has given enthusiastic reception to Science Fairs throughout the state. MSMS has participated, aided and encouraged county medical societies to play a leading role in these local affairs. It is encouraging to report that doctors have participated in every Michigan science fair during 1959.

5. Exhibits. The MSMS demonstration exhibit of "The Family Doctor's Office Equipment" received the top honor award as the best health exhibit at the Michigan State Fair in Detroit in September. The exhibit was shown at three other fairs co-sponsored by MSMS and local county societies: Ionia Free Fair, Saginaw County Fair and the Upper Peninsula State Fair. Co-operating in staffing the display were the MSMS PR staff, members of the county medical society, the Woman's Auxiliary and Medical Assistants Society.

6. Television-radio. Scheduled productions of the MSMS live television show, "The Family Doctor," were completed this year in Kalamazoo and Grand Rapids. The hour-long show was originally presented in Detroit during the 1958 Annual Session. Its success prompted the decision by the Public Relations Committee to produce the show over outstate TV stations to enhance public relations in all areas of the state.

In radio, the MSMS "Tell Me, Doctor" series is still being used by several Michigan stations. Also, a 15-minute health series is being continued until new programming develops. There is a growing desire on the part of radio stations for shorter programs to fit local news and music station programming.

7. Motion Pictures. As authorized by The Council, a new film is currently in production, which will document the construction and dedication of the new MSMS headquarters. The film will incorporate information on the activities in the public interest carried out by the medical profession and will be shown to public audiences in connection with the President's Five Year Program.

Based upon action of the 1959 House of Delegates urging a stepped up program for the recruitment of superior medical students, the MSMS film "To Save Your Life" is being revised and up-dated to carry out the instruction of the House of Delegates.

8. Public Relations Library. In an expanded acquisition program during 1959, the Public Relations Library has added a vast amount of valuable material which is available to MSMS members and county medical societies. Improved facilities in the new headquarters will permit more efficient operation and printed and audio-visual resources will be more readily available.

9. Brochures and Publications. After extensive revision, the MSMS medical associates recruitment brochure, "Planning Your Career," was reprinted and distributed for use by career guidance teachers and interested students. The brochure is now in its sixth printing and helps fill a vacuum in this field. Other printed pieces produced by public relations staff include posters, Annual Session and MCI programs and editorial aid and planning for the Woman's Auxiliary "Auxilium." Contributions to THE JOURNAL of MSMS are also made on a regular basis.

10. Annual Sessions—Michigan Clinical Institute. Science writers, working with press committees and staff at both sessions prepared a tremendous amount of copy on the medical news made by the clinical speakers and Michigan's Foremost Family Physician. Doctors of medicine were again most co-operative in filling speaking engagements before luncheon clubs during the two

meetings. These speaking dates are arranged by MSMS to bring lay groups in personal contact with doctors who are attending the postgraduate sessions.

The major areas of activity outlined above present a generalized picture of our Public Relations effort. As an outline of total activity, however, it is incomplete. For, in addition to these projects, the PR staff is intimately involved in service to the Legal Affairs Committee and its interest in new developments in health legislation. Also, the staff serves as secretaries to chairmen of the MSMS committees and functions in a liaison capacity with county medical societies, organizations and health agencies.

Additional support of the professional viewpoint was mobilized this year with the formation of the Michigan Association of the Professions. To date, there are over 3,000 charter members of the organization composed of doctors of medicine, dentists, architects, professional engineers and lawyers. The Michigan State Medical Society was one of the associations responsible for the organization of MAP. With The Council's approval, the MSMS PR staff provided valuable help to MAP in its formative stages.

The new group, first in the nation, held its first Congress of the Professions in Detroit, January 23. At pre-Congress hearings, the day previous, experts discussed legislation, public relations, education, publications and business services as these subjects related to the professions.

Wm. M. LeFevre, M.D., the organization's first president, predicted that group action on the part of all professions would be able to accomplish much that would be impossible if attempted alone.

LEGISLATION

There is some justification for us in the medical profession to look back on the past legislative year with a feeling of accomplishment.

For example, we were successful in having medical safeguards for the public incorporated in the state's new 1959 psychologist registration law. We also focused legislative attention on the mishandling of accident victims by poorly trained and poorly equipped ambulance personnel; and it now appears that our efforts have stimulated the formation of an educational program, sponsored jointly by the profession and the ambulance operators. Also, a self-imposed annual re-registration fee on the physicians will henceforth provide the Board of Registration in Medicine with sufficient additional funds to enable it to better serve the public and the profession.

We cannot ignore, however, the many challenges still facing medicine. As an example of the gravity of some of those challenges, I remind you of the Forand Bill, which has been before Congress the past three years and again is up for its consideration in 1960. In this bill the advocates of socialized medicine and the regimentation of our people hope to give surgical, hospital and nursing home care (initially) to all social security beneficiaries.

Adoption of this limited program would lead inexorably to complete socialization of health care, ultimately forcing all Americans to pay for all their health care through taxation. This is bad for the patient and worse for the country.

Medicine must do its utmost, now, to prevent this from happening. We cannot permit ourselves to forget that if it is the duty of the physician to serve his patients, he must do so politically, as well as medically.

ACKNOWLEDGMENT

Your Secretary is very grateful for the helpful cooperation given him by the Council while filling out the unexpired term of the late L. Fernald Foster, M.D.

The members of the Executive Office staff have been most understanding and cannot be too highly commended for their untiring efforts and loyalty to the Michigan State Medical Society.

To everyone who has aided so generously and willingly in the discharge of his duties, your Secretary is most grateful.

Respectfully submitted,
D. Bruce Wiley, M.D.
Secretary

EDITOR'S ANNUAL REPORT

The Journal of the Michigan State Medical Society has completed Volume 58 and has presented the most material ever attempted. The twelve regular numbers were issued plus a 68 page supplement with the January number and a 112 page supplement with the September issue. The January supplement contained the proceedings of Annual Meeting of the House of Delegates. Had this material been included in the regular issue of The Journal it would have made over 250 pages and would have been very bulky and unwieldy. We therefore published this in a separately bound section. This is an advantage for several reasons but primarily it makes these proceedings available in a compact and readily consulted form for the delegates, the officers, committee members and all others who are interested in the business and proceedings of the society. With the September issue, the Directory was issued as a separate section and it contained 112 pages.

This year The Journal has continued the program established many years ago of changing its cover design with each issue, using a design which would in some respect reflect the subject matter of the particular issue. The various subject matters used in 1959 were Heart, The Doctor As A Citizen, Washtenaw County Medical Society, Cancer Control, Beaumont Memorial Foundation, Michigan Medical Service, Michigan State Medical Society Annual Session, Child Health, Geriatrics, National Defense, Tuberculosis, and Michigan Clinical Institute.

Several of these numbers were especially noteworthy and received much commendation. The May number (Beaumont Memorial Foundation) contained an unusual amount of historical material. The October number (National Defense) received plaudits because of the unique presentation of the "Atom in Peace as well as War."

In the twelve issues, we published 1045 pages of advertising, and 1,178 text pages including all material with reference to the medical profession, original articles, news items, book reviews, editorials, programs, memberships on committees, etc. The question has been raised as to whether we were running too much advertising, but advertising pages still are the lesser of the two figures.

There were 182 authors of original articles, twelve of these names appearing more than once, mostly where there were multiple authors of a paper.

There were seventy-five editorials, all but one of which were on socio-economic and legislative policy or such items, other than purely scientific. There were seventy-seven book reviews, ninety memorial notices including one about our long time Secretary, L. Fernald Foster, M.D., which was an editorial. As for many years, every month carried a President's Page with timely comments bearing the President's signature and presenting his likeness.

The Bi-Annual Conference of State Journal Editors was held in Chicago on October 26-27, 1959. Mr. O. M. Forkert of Forkert and Associates was present for his third consecutive analysis review and criticism of the various medical journals. He had been given a single copy, the April issue, of each of the journals represented in the program. Mr. Forkert complimented all the journals on the remarkable improvement made since his first contact. He explained his ratings which were (1) poor, (2) good, and (3) excellent to a high degree,

but his top rating was almost always 90, rarely 100 for point 3.

He scaled the journals individually on six different categories: (1) There were seven questions regarding the cover in which Michigan scored 100 per cent and the comment, "The best cover among all state medical journals evaluated." (2) Table of Contents page with five questions. (3) Placement of articles, features and ads with ten questions. (4) Attention, value and readability, thirteen questions. We scored poor on the question, "Do blurbs give a terse summary of the article in a manner that makes the reader want to look into the article?". (5) Photographs, cartoons and artwork, nine questions. (6) Distinctive Character and Appeal, four questions. Michigan scored 3 (excellent to a high degree) on all but one of the forty-eight items, and was awarded the trophy for the best cover.

Four trophies were given altogether to four different journals, *Rocky Mountain Medical Journal,* Michigan, Minnesota and Georgia. The trophy was a facsimile of a page of the Guttenberg Bible printed from the first movable type ever used, a 700 sheet volume printed about 1436-1440. It is an excellent etching of this piece of work which was all printed from movable type except the initials which were hand done, and some hand coloring.

We are very proud of this year's work and record. We appreciate the co-operation and assistance of various persons on the Publication Committee, on the staff at Lansing, the Assistant Editor, and the advice and counsel of the State Society officers to whom have been submitted pre-publication forms of all editorials having to do with policies and socio-economic problems. We also wish to thank the President, President-Elect, immediate Past President, Chairman of The Council, Speaker of the House, Secretary, Executive Director, Public Relations Counsel, our Legal Counsel, and numerous members of committees who were consulted when we were discussing topics with which they were familiar; also the special co-ordinators who were appointed to assist in developing the special issues of THE JOURNAL; and the Bruce Publishing Company, our printers and very capable advisors.

THE JOURNAL to date has published 688 numbers, there being only four in the first volume. The December number, 1960, will be number 700, and we might consider some special treatment at that time.

I again thank all those who have been so kind to me.

Respectfully submitted,
WILFRID HAUGHEY, M.D.
Editor

TREASURER'S REPORT

December 1, 1958, to November 30, 1959

Pursuant to my appointment as Treasurer, by the Council, January, 1959, I am submitting my report of Stewardship.

Balance on hand December 1, 1958	$ 7,119.30
Deposits 12-1-58 to 11-30-59	7,884.26
Balance on hand December 1, 1959	$15,003.56

On December 26, 1959, $5,000.00 of Cash Deposits of Treasurer's Account was forwarded to Mr. Roney of the Executive Office to be applied to the current checking account.

[This has nothing to do with the report of December 1, 1958 to November 30, 1959, but as a reminder, our balance is $5,000.00 less than the balance of December 1, 1959 (as of this date).]

I am enclosing a list of the deposits during the past twelve months, also a list of securities at present in our port-folio and in Lock Box 121 in the Michigan National Bank, in Grand Rapids.

TRANSACTIONS CONCERNING CERTIFICATES OF DEPOSIT

December 1, 1958—November 30, 1959

Proceeds of $40,000 Certificate of Deposit No. 644 (MNB) forwarded to Mr. Roney's office on October 6, 1959.

2—$5,000 Michigan National Saving Deposits Receipts.

Nos. 1160 and 1161, each dated October 24, 1957, were forwarded to Mr. Roney on October 7, 1959.

1—$60,000 invested in Michigan National Bank Savings Deposit Receipt No. 2057 during the year was cashed and the proceeds plus interest were forwarded to Mr. Roney's office on November 3, 1959.

DEPOSITS, December 1, 1958 to November 30, 1959

December 10, 1958	$ 696.93
December 10, 1958	110.00
December 19, 1958	281.25
January 7, 1959	367.70
February, 1959	—o—
March 26, 1959	1,112.50
March 31, 1959	110.00
April 8, 1959	125.00
April 22, 1959	225.00
May 16, 1959	437.50
May 20, 1959	312.50
June 5, 1959	696.93
July 8, 1959	55.20
July 27, 1959	281.25
August 26, 1959	900.00
August 31, 1959	450.00
September 5, 1959	62.50
September 24, 1959	725.00
October 6, 1959	110.00
October 23, 1959	75.00
November 17, 1959	312.50
November 17, 1959	437.50
TOTAL DEPOSITS	$ 7,884.26
Balance, December 1, 1958	7,119.30
Balance, November 30, 1959	$15,003.56

Numbers of Certificates of deposit and U. S. Government bonds in possession of the treasurer, in Lock Box 121 in Michigan National Bank located in Grand Rapids.

1—$5,000 G Bond, dated March, 1948, No. V799-030	$ 5,000
4—$1,000 K Bonds, dated August, 1954, Nos. 262-323K, 262-324K, 262-325K, 262-326K	4,000
8—$1,000 2¾% Treasury Bonds 75-80, Nos. 17469K, 17470L, 17471A, 17472B, 17473C, 17474D, 17475E, 17476F	8,000
1—$5,000 Michigan National Bank Savings Deposit Receipt No. 1162, dated October 24, 1957	5,000
1—Michigan National Bank Savings Certificate, No. 1628 dated May 29, 1958, replacing a government bond of $5,000 called in May, 1958	5,062.50
1—Michigan National Bank Safekeeping Receipt No. 4378, $25,000 United States of America 2½% Treasury Bond dated February 15, 1954, due November 15, 1961, held by the First National Bank of Chicago	25,000
1—Michigan National Bank Safekeeping Receipt No. 4536, $35,000 United States of America 2½% Treasury Bond dated 2-15-54, due 11-11-61	35,000
1—Michigan National Bank Safekeeping Receipt No. A864, $25,000 United States of America 2½% Treasury Bond, due 6-15-62, held by the First National Bank of Chicago	25,000
1—Michigan National Bank Safekeeping Receipt No. A726, $10,000 United States of America 2½% Treasury Bond, due March 15, 1970, held by the First National Bank in Chicago	10,000
Michigan National Bank Safekeeping Receipt No. A718, 5 series K Savings Bonds, Nos. Y54-843K, 846K inclusive, V49-459K, issued 6-18-54, 12 yr. maturity	45,000

MSMS 1960 BUDGET ESTIMATES

GENERAL FUND

ACCOUNT TITLE	1960 Estimates
INCOME:	
5750 members @ $65.00	$373,750.00
Less: $ 1.50 to THE JOURNAL	8,625.00
$ 9.25 to Public Education	53,187.50
$ 4.50 to Public Service	25,875.00
$ 6.25 to Professional Relations	35,937.50
$15.00 to MSMS Headquarters Fund	86,250.00
$ 1.50 to Contingency Fund	8,625.00
$ 1.00 to Beaumont Memorial Foundation	5,750.00
Balance to General Fund @ $26.00	$149,500.00
Interest and Miscellaneous Income	3,000.00
TOTAL FUNDS AVAILABLE	$152,500.00
EXPENSES: (Administrative and General)	
Printing, Mailing and Postage	$ 9,000.00
Office Supplies	3,500.00
Insurance and Fidelity Bond	2,600.00
Auditing	850.00
Salaries—Administrative and Office (Including Legal Counsel)	53,106.44
General Counsel Expense (Includes $3,600 office expense)	4,000.00
Equipment and Repairs	3,000.00
Telephone & Telegraph	6,000.00
Taxes (Other than Property)	3,500.00
Miscellaneous Expenses and Contributions	2,500.00
Employes' Retirement Trust	12,000.00
International Business Machines	1,800.00
TOTAL ADMINISTRATIVE & GENERAL EXPENSE	$101,856.44
EXPENSES: (Society Activities)	
Council Expense	$ 25,000.00
AMA Delegates and Alternates	5,000.00
General Society Travel and Entertainment	5,500.00
Officers Travel	3,600.00
Secretary's Letters and Office Expense	1,500.00
Woman's Auxiliary	600.00
Dues Collection Expense	3,500.00
TOTAL SOCIETY ACTIVITY EXPENSE	$ 44,700.00
EXPENSES: (Committees)	
Cancer Coordinating Committee	$ 1,000.00
Child Welfare Committee	200.00
National Defense	700.00
Geriatrics	300.00
Industrial Health	100.00
Iodized Salt	100.00
Legal Affairs	3,000.00
Maternal Health	500.00
Mental Health	150.00
Michigan Health Council	10,000.00
Postgraduate Medical Education	4,200.00
Preventive Medicine	200.00
Permanent Conference Committee	100.00
Rural Medical Service	100.00
Scientific Radio	1,600.00
Tuberculosis Control	350.00
Venereal Disease	100.00
Highway Accident Committee	300.00
Advisory Committee to Medical Assistants	100.00
Big Look Committee	500.00
Medical Care Insurance Committee and Secretary	13,627.00
Relative Value Study Committee	19,222.23
Michigan Joint Council on Aging	100.00
Beaumont Memorial Restoration	200.00
Miscellaneous Committees	1,500.00
House of Delegates Committees:	
Committee to Work with National Blue Shield	2,000.00
Special Committee to Review Constitution and Bylaws	300.00
Committee to Study Problem of Malpractice	200.00
Committee on Committees	200.00
Committee to Study Michigan State Medical Society Publications	200.00
Permanent Advisory Committee on Fees	750.00
Committee to Review Financial Status of MSMS	100.00
Committee to Study Election of Councilors on Geographic Basis and the Status of Councilors as Voting Delegates	100.00
TOTAL COMMITTEE EXPENSE	$ 62,099.23
TOTAL GENERAL FUND EXPENSES	$208,655.67
GAIN OR LOSS FOR THE YEAR (L)	56,155.67
BALANCE FROM PRIOR YEARS	178,735.36
NET GAIN OR LOSS FROM ANNUAL SESSION, M.C.I., and THE JOURNAL (G)	4,310.00
BALANCE	$126,889.69
TO PUBLIC EDUCATION RESERVE	26,472.78
TO MSMS HEADQUARTERS FUND (Bonds)	110,000.00
BALANCE TO FUTURE YEARS (L)	$ 9,583.09

BUILDING MAINTENANCE FUND

INCOME:	
Allocation from Membership Dues	—0—
EXPENSES: (8 months—through July)	
Maintenance: Utilities, Decorating, Supplies	$ 1,700.00
Salaries—Janitor	1,000.00
Property Taxes	1,178.69
Insurance—Fire and Liability	474.93
Depreciation	1,785.85
Miscellaneous Expenses	—0—
TOTAL BUILDING MAINTENANCE EXPENSES	$ 6,139.47
GAIN OR LOSS FOR THE YEAR (L)	6,139.47
BALANCE FROM PRIOR YEARS	4,936.60
TO MSMS HEADQUARTERS FUND	—0—
BALANCE TO FUTURE YEARS (L)	$ 1,202.87

THE JOURNAL

INCOME:	
Allocation from Dues	$ 8,625.00
Subscriptions—Non-members	800.00
Advertising Sales	135,225.00
Reprint and Cut Sales	4,400.00
TOTAL JOURNAL INCOME	$149,050.00
EXPENSES:	
Editor's Expense	$ 3,000.00
Printing, Mailing and Postage	85,000.00
Reprint and Cut Expense	3,200.00
Salaries	24,440.00
Discounts and Commissions	29,000.00
Miscellaneous Expenses	100.00
TOTAL JOURNAL EXPENSES	$144,740.00
GAIN OR LOSS ON THE JOURNAL (G)	4,310.00

MSMS NEW HEADQUARTERS FUND

INCOME:	
Allocation from Membership Dues	$ 86,250.00
Balance from Prior Years	125,188.04
TOTAL: MSMS Headquarters Fund	$211,438.04
Transferred from Bond Account (General Fund)	110,000.00
TOTAL FUNDS AVAILABLE	$321,438.04
ESTIMATED COST OF BUILDING	468,309.86
BALANCE TO FUTURE YEARS (L)	146,871.82

ANNUAL SESSION

INCOME:	
Booth Sales (102 spaces) Detroit	$26,300.00
EXPENSES:	
Scientific Meeting	4,000.00
Exhibit	3,500.00
Registration and Hotel	900.00
State Society and Officers' Night	3,800.00
Promotion: Printing, Mailing, Postage and Scientific Work Committee	3,000.00
Press Expense	2,400.00
Salaries	6,000.00
House of Delegates Expense (Includes special guests)	2,500.00
Miscellaneous Expenses	200.00
TOTAL ANNUAL SESSION EXPENSE	$ 26,300.00
GAIN OR LOSS ON ANNUAL SESSION	—0—

MICHIGAN CLINICAL INSTITUTE

INCOME:	
Booth Sales (73 spaces) Detroit	$ 13,585.00
EXPENSES:	
Scientific Meeting	3,000.00
Exhibit	3,200.00
Registration and Hotel	600.00
Promotion: Printing, Mailing and Postage	2,535.00
Press Expense	2,000.00
Salaries	1,600.00
Residents and Interns Conference	250.00
Miscellaneous Expense	400.00
TOTAL M.C.I. EXPENSES	$ 13,585.00
GAIN OR LOSS MICHIGAN CLINICAL INSTITUTE	—0—

PUBLIC EDUCATION RESERVE

INCOME:	
Allocation from Membership Dues	—0—
Balance from Prior Years	$ 23,527.22
TOTAL PUBLIC EDUCATION RESERVE	$ 23,527.22
TRANSFERRED FROM GENERAL FUND BONDS	26,472.78
BALANCE TO 1961	$ 50,000.00

PUBLIC EDUCATION ACCOUNT

INCOME:	
Allocation from Membership Dues	$ 53,187.50
Other Income	200.00
TOTAL PUBLIC EDUCATION INCOME	$ 53,387.50
EXPENSES:	
Committee Meetings	$ 200.00
Equipment and Repairs	3,000.00
Printing, Mailing and Postage	4,000.00
Office Supplies	2,400.00
Salaries	26,622.66
Telephone and Telegraph	1,500.00
Travel and Entertainment	5,000.00
Exhibit Expenses	1,800.00
Publications, Pamphlets, Clippings	1,500.00
Radio, Television and Cinema	3,000.00
Miscellaneous Expenses	500.00
Library	500.00
Michigan Association of Professions	2,100.00
TOTAL EXPENSES	$ 52,122.66
GAIN OR LOSS FOR THE YEAR	(G) 1,264.84
BALANCE FROM PRIOR YEARS	19,651.34
BALANCE TO FUTURE YEARS	$ 20,916.18

PUBLIC SERVICE ACCOUNT

INCOME:	
Allocation from Membership Dues	$ 24,725.00
EXPENSES:	
Salaries	$ 12,892.00
Telephone and Telegraph	1,200.00
Travel and Entertainment	5,000.00
Rural Health Conference	132.72
Miscellaneous Meetings	9.50
TOTAL PUBLIC SERVICE EXPENSE	$ 19,234.22
GAIN OR LOSS FOR THE YEAR	(G) 5,490.78
BALANCE FROM PRIOR YEARS	(L) 8,683.54
BALANCE TO FUTURE YEARS	(L) 3,192.77

PROFESSIONAL RELATIONS ACCOUNT

INCOME:	
Allocation from Membership Dues	$ 35,937.50
EXPENSES:	
Salaries	$ 17,936.20
Telephone and Telegraph	1,000.00
Travel and Entertainment	5,000.00
Rent to Wayne County Medical Society	1,974.78
National Meeting Expense	1,600.00
County Secretary's PR Conference	7,200.00
Woman's Auxiliary	1,600.00
Printing, Mailing and Postage	500.00
TOTAL PROFESSIONAL RELATIONS EXPENSE	$ 36,810.98
GAIN OR LOSS FOR THE YEAR	(L) 873.48
BALANCE FROM PRIOR YEARS	(L) 9,134.49
BALANCE TO FUTURE YEARS	(L) 10,007.97

RHEUMATIC FEVER CONTROL PROGRAM

INCOME:	
Grant from Michigan Heart Association	$ 8,000.00
EXPENSES: (Central Office)	
Committee Meetings	300.00
Equipment and Repairs	100.00
Payroll Taxes	100.00
Printing, Mailing and Postage	500.00
Office Supplies	50.00
Fellowships	3,000.00
TOTAL CENTRAL OFFICE EXPENSE	$ 4,050.00
EXPENSES: (Control Centers)	
Alpena	$ 300.00
Ann Arbor	700.00
Bay City	300.00
Detroit	300.00
Grand Rapids	1,500.00
Kalamazoo	1,500.00
Muskegon	—0—
Petoskey	—0—
Pontiac and Royal Oak	—0—
Saginaw	100.00
Traverse City	500.00
TOTAL CONTROL CENTER EXPENSE	$ 5,200.00
TOTAL RHEUMATIC FEVER CONTROL EXPENSES	9,250.00
GAIN OR LOSS FOR THE YEAR	(L) 1,250.00
BALANCE FROM PRIOR YEARS	3,275.12
BALANCE TO FUTURE YEARS	2,025.12

REPORT OF KNOSTMAN & SMITH

Certified Public Accountants—1959

Executive Committee of the Council
Michigan State Medical Society

We have examined the Statement of Financial Condition of the MICHIGAN STATE MEDICAL SOCIETY, Lansing, Michigan, as at November 30, 1959, and the related statements of income and expense and fund transactions for the fiscal year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying Statement of Financial Condition and related statements of income and expense and fund transactions, present fairly the position of the MICHIGAN STATE MEDICAL SOCIETY as at November 30, 1959, and the results of its operations for the fiscal year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

KNOSTMAN & SMITH
Certified Public Accountants

Lansing, Michigan
December 23, 1959

Executive Committee of the Council
Michigan State Medical Society
Lansing, Michigan
Gentlemen:

We submit the following comments relative to the scope of our examination of the MICHIGAN STATE MEDICAL SOCIETY, Lansing, Michigan, as at November 30, 1959, and to the more important items appearing in your financial statements for the fiscal year then ended.

HISTORY

The Michigan State Medical Society was organized on September 17, 1910, under the laws of the State Michigan, as a non-profit corporation. The charter has been extended for a period of thirty years from September 17, 1940. The Society is affiliated with the American Medical Association, and it charters county medical societies within the State of Michigan. The purposes of the Society are the promotion of the science and art of medicine, the protection of the public health, and the betterment of the medical profession. In the furtherance of these purposes, the Society publishes "The Journal of the Michigan State Medical Society."

COMMENTS

The commercial bank account and savings account maintained at the Michigan National Bank, Lansing, Michigan, were reconciled to your books of account, and further confirmed by direct correspondence with the bank as at November 30, 1959.

Confirmation of the treasurer's account, as at November 30, 1959, was received from the Michigan National Bank, Grand Rapids, Michigan, and reconciled to your books of account.

Petty cash in the Lansing office, in an amount of $304.18 was counted by our representative. The Detroit office petty cash of $50.00 was not verified.

Accounts receivable were confirmed by direct correspondence. Although not all confirmations have been returned, no negative replies have been received. An aging analysis of the accounts by the month of charge is as follows:

September, October, November	$22,218.69
June, July, August	416.25
Over six months	954.14
TOTAL	$23,589.08

The employees portion of insurance premiums, in an amount of $1,847.11, are reimbursed to the Society via payroll deductions. This balance is comprised of the following:

Retirement plan premiums	$1,842.44
Michigan Medical Service premiums	4.67
TOTAL	$1,847.11

The net cost of your retirement plan for the current year is as follows:

	Total	*Society Share*	*Employe Share*
Premium—1 year	$19,056.84	$10,216.35	$ 8,840.49
Adjustments	4,628.70	1,640.91	2,987.79
NET	$23,685.54	$11,857.26	$11,828.28
Collections from employes	$ 9,985.84		$ 9,985.84
	$13,699.70		$ 1,842.44
Due from employes in December 1959 and January 1960	$ 1,842.44		$ 1,842.44
NET SOCIETY COST	$11,857.26	$11,857.26	—0—

Employee travel advances were substantiated by non-interest bearing signed statements from the five employees to whom advances have been made.

The employee loan is being repaid through monthly payroll deduction. Interest is computed each payment date on the unpaid balance in accordance with our recommendation in 1958.

An analysis of your investments, showing changes during the current year, is set forth in Schedule 10, as well as a detail of interest received and amortization taken. All securities were confirmed by direct correspondence with the Michigan National Bank, Grand Rapids, Michigan, per their letter dated December 29, 1959.

Real estate owned, deposits, and payments on the new headquarters building currently under construction are set forth in Schedule 11, together with applicable depreciation allowances.

Prepaid expenses represent supplies purchased in 1959 that are applicable to 1960 activities.

Office equipment purchased during the period under review was charged to expense in accordance with the Society policy of not reflecting equipment as an asset.

Membership dues for year under review were reconciled to the 6,865 membership cards issued.

Income from the sale of booth space for the Michigan Clinical Institute and the Annual Session was verified by our representative and a test check of JOURNAL Advertising was in agreement with your books of account.

State and federal unemployment taxes were computed by our representative as at November 30, 1959.

Net gain for all society functions for the year ended November 30, 1959, was $57,546.40 as set forth in Exhibit "C".

Respectfully submitted,
KNOSTMAN & SMITH
Certified Public Accountants

STATEMENT OF FINANCIAL CONDITION

November 30, 1959

ASSETS

CASH ON HAND AND IN BANKS		
Michigan National Bank		
Lansing, Michigan (regular account)	$ 12,232.60	
Lansing, Michigan (savings account)	10,775.84	
Grand Rapids, Michigan (Treasurer's account)	15,003.56	
Office cash (Lansing and Detroit, Michigan)	354.18	$ 38,366.18
ACCOUNTS RECEIVABLE		
Advertising, allowances and other items	$ 23,589.08	
Due from employes-Insurance premiums	1,847.11	
Employe travel advances	500.00	
Employe loan (interest rate at 4%)	4,505.63	
	$ 30,441.82	
Less allowance for doubtful accounts	74.45	$ 30,367.37
INVESTMENTS (Schedule A) (Market or redemption value $159,061.75)		$166,629.49
PROPERTY AND EQUIPMENT (Schedule 11)		
Land—606 Townsend	$ 10,000.00	
Lot adjoining office building	6,000.00	
Land M-78 and Abbott Road	65,646.00	
Deposit on adjoining lot	500.00	
New Headquarters building (under construction)	159,334.14	
Office building $34,500.00		
Building improvements 5,664.06		
Building equipment 3,836.09		
Parking lot 1,913.60	$ 45,913.75	
	$287,393.89	
Less depreciation allowance	13,843.17	$273,550.72
OTHER ASSETS		
Prepaid expenses		$ 2,062.28
TOTAL ASSETS		$510,976.04

LIABILITIES

ACCOUNTS PAYABLE		
Federal Unemployment tax	$ 218.37	
Michigan Unemployment tax	50.52	
Withholding and social security tax	109.82	
Unpaid invoices	13,996.19	
TOTAL ACCOUNTS PAYABLE		$ 14,374.90
SOCIETY EQUITIES		
RESERVED FOR SPECIAL PURPOSES		
Public Education Reserve $23.527 22		
Public Education Program 19,651.34	$ 43,178.56	
Public Service Account	(8,683.54)	
Professional Relations Account	(9,134.49)	
Rheumatic Fever Control Program	3,275.12	
Building Maintenance Fund	4,936.60	
New Headquarters Fund	125,188.04	
New Headquarters-Under Construction	159,334.14	
TOTAL RESERVED	$318,094.43	
General Society Equity 11-30-58 $175.021.34		
Net gain for period 3,485.37	$178,506.71	
TOTAL EQUITIES (Schedule C)		$496,601.14
TOTAL LIABILITIES AND EQUITIES		$510,976.04

STATEMENT OF INCOME AND EXPENSES

Fiscal Year Ended November 30, 1959

INCOME		
Membership dues	$159,158.25	
Miscellaneous	1.14	
Interest income (Schedule A)	8,682.15	
Amortization (Schedule A)	451.69	$168,293.23
OTHER INCOME OR (Loss)		
Annual Session	(48.33)	
Michigan Clinical Institute	(1,972.87)	
"The Journal"	8,820.38	$ 6,799.18
TOTAL INCOME		$175,092.41
EXPENSES		
Administrative and general	$ 93,085.88	
Society activity	40,823.90	
Committee expenses	37,697.26	
TOTAL EXPENSES (Schedule 1)		$171,607.04
NET GAIN		$ 3,485.37

SCHEDULE C

INCOME AND EXPENSE SUMMARY

Fiscal Year Ended November 30, 1959

	Balance 12-1-58	*Fund Transfers*	*Income For the Period*	*Expenses For the Period*	*Net Gain or (Loss)*	*Balance 11-30-59*
Equity—General Fund			$168,293.23	$171,607.04	$ (3,313.81)	
Annual Session			32,370.00	32,418.33	(48.33)	
Michigan Clinical Institute	$175,021.34		13,585.00	15,557.87	(1,972.87)	$178,506.71
"The Journal"			152,615.26	143,794.88	8,820.38	
Contingent Fund	53,614.34	$(53,614.34)	—0—	—0—	—0—	—0—
Building Maintenance Fund	22,195.41	(10,000.00)	—0—	7,258.81	(7,258.81)	4,936.60
Public Education Reserve	91,165.25	(76,385.66)	8,747.63	—0—	8,747.63	23,527.22
Public Education Program	17,677.72	—0—	54,121.44	52,147.82	1,973.62	19,651.34
Public Service	(5,409.09)	—0—	26,242.87	29,517.32	(3,274.45)	(8,683.54)
Professional Relations	(2,463.45)	—0—	36,460.09	43,131.13	(6,671.04)	(9,134.49)
Rheumatic Fever Control Program	1,879.18	—0—	6,825.00	5,429.06	1,395.94	3,275.12
Headquarters Fund	85,373.04	140,000.00	59,149.14	159,334.14*	59,149.14	125,188.04
New Headquarters-Under Contruction		159,334.14				159,334.14
TOTAL	$439,053.74	$159,334.14	$558,409.66	$660,196.40	$ 57,547.40	$496,601.14

*NOTE: This item represents capital expenditures in your new headquarters building currently under construction. The balance in the "Headquarters Fund" represents the funds available for construction. The balance in "New Headquarters-Under Construction" represents your current investment in your new building.

EXPENSES

Fiscal Year Ended November 30, 1959

ADMINISTRATIVE AND GENERAL

	Actual
Printing, mailing and postage	$ 11,782.68
Office supplies	3,722.67
Insurance and fidelity bonds	2,424.68
Auditing	890.00
Salaries—administrative and office—(including legal counsel)	36,301.40
General counsel expense	4,039.86
Equipment and repairs	2,880.90
Telephone and telegraph	6,548.64
Taxes (other than property)	3,431.72
Miscellaneous expenses and contributions	7,361.91
Employees' retirement trust	11,857.26
International Business Machines	1,844.16
TOTAL ADMINISTRATIVE AND GENERAL EXPENSES	$ 93,085.88

SOCIETY ACTIVITIES

Council expense	$ 20,366.63
AMA delegates and alternates	5,363.48
General society travel and entertainment	5,896.73
Officers travel	3,571.00
Secretary's letters and office expense	1,521.45
Woman's auxiliary	600.00
Dues collection expense	3,504.61
TOTAL SOCIETY ACTIVITIES EXPENSE	$ 40,823.90

COMMITTEE EXPENSES

Cancer Coordinating Committee	$ 1,109.07
Child Welfare Committee	191.93
National Defense	767.27
Geriatrics	274.79
Industrial health	35.51
Legislative	5,829.21
Maternal health	458.09
Mental health	133.66
Michigan Health Council	10,000.00
Postgraduate Medical Education	4,135.55
Preventive medicine	209.64
Permanent Conference Committee	83.30
Scientific radio	1,616.27
Tuberculosis control	371.83
Venereal disease	58.45
Highway Accident Committee	301.05
Big Look Committee	559.99
Medical Care Insurance Committee	9,531.34
Michigan Joint Council on Aging Committee	42.46
Beaumont Memorial Restoration	717.79
Miscellaneous committee expense	1,270.06
TOTAL COMMITTEE EXPENSES	$ 37,697.26
TOTAL EXPENSES	$171,607.04

INCOME AND EXPENSE OF THE ANNUAL SESSION

Fiscal Year Ended November 30, 1959

INCOME

	Actual
Booth sales (125 spaces)	$ 32,370.00
TOTAL INCOME	$ 32,370.00

EXPENSES

Scientific meeting	$ 5,106.21
Exhibit	5,285.60
Registration and hotel	1,901.52
State society and officers' night	3,989.66
Promotion—printing, mailing, postage and Scientific Work Committee	3,410.84
Press expense	2,493.31
Salaries	6,308.44
House of Delegates	3,557.95
Miscellaneous expenses	364.80
TOTAL EXPENSES	$ 32,418.33
GAIN OR (LOSS) ON ANNUAL SESSION	$ (48.33)

INCOME AND EXPENSE OF THE MICHIGAN CLINICAL INSTITUTE

Fiscal Year Ended November 30, 1959

INCOME

	Actual
Booth sales (74 spaces)	$ 13,585.00
TOTAL INCOME	$ 13,585.00

EXPENSES

Scientific meeting	$ 3,444.54
Exhibit	3,318.11
Registration and hotel	484.11
Promotion—printing, mailing and postage	2,873.94
Press	3,054.39
Salaries	1,594.44
Residents and interns conference	461.03
Miscellaneous expense	327.31
TOTAL EXPENSE	$ 15,557.87
GAIN OR (LOSS) ON M. C. I.	$ (1,972.87)

INCOME AND EXPENSE OF "THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY"

Fiscal Year Ended November 30, 1959

INCOME

	Actual
Allocation from dues	$ 8,747.63
Subscriptions—non members	839.21
Advertising sales	138,234.37
Reprint and cut sales	4,794.05
TOTAL INCOME	$152,615.26

EXPENSES	
Editor's expense	$ 3,000.00
Printing, mailing and postage	85,273.52
Reprint and cut expense	3,296.27
Salaries	22,405.30
Discounts and commissions	29,752.77
Miscellaneous expense	67.02
TOTAL EXPENSES	$143,794.88
GAIN OR (LOSS) ON "THE JOURNAL"	$ 8,820.38

INCOME AND EXPENSE OF THE BUILDING MAINTENANCE FUND

Fiscal Year Ended November 30, 1959

INCOME	*Actual*
Allocation from dues	$ —0—
TOTAL INCOME	$ —0—
EXPENSES	
Maintenance—utilities, decorating, supplies, yard work, etc.	$ 2,224.90
Salaries—janitor	1,594.44
Property taxes	1,178.69
Insurance—fire and liabilities	474.93
Depreciation	1,785.85
TOTAL EXPENSES	$ 7,258.81
GAIN OR (LOSS) ON BUILDING MAINTENANCE FUND	$ (7,258.81)

INCOME AND EXPENSE OF THE PUBLIC SERVICE ACCOUNT

Fiscal Year Ended November 30, 1959

INCOME	*Actual*
Allocation from dues	$ 26,242.87
TOTAL INCOME	$ 26,242.87
EXPENSES	
Salaries	$ 23,026.77
Telephone and telegraph	681.00
Travel and entertainment	5,602.51
Rural health conference	197.54
Miscellaneous meetings	9.50
TOTAL EXPENSES	$ 29,517.32
GAIN OR (LOSS) DURING PERIOD	$ (3,274.45)

INCOME AND EXPENSE OF THE PUBLIC EDUCATION PROGRAM

Fiscal Year Ended November 30, 1959

INCOME	*Actual*
Allocation from dues	$ 53,920.39
Other income	201.05
TOTAL INCOME	$ 54,121.44
EXPENSES	
Committee meetings	$ 161.46
Equipment and repairs	1,613.85
Printing, mailing and postage	5,894.83
Office supplies	1,959.69
Salaries	23,026.77
Telephone and telegraph	1,399.23
Travel and entertainment	6,425.78
Exhibit expense	4,163.69
Publications, pamphlets, clippings	970.44
Radio, television and cinema	2,247.31
Miscellaneous expense	472.56
Library	483.95
Michigan Association of Professions	1,902.45
Testimonial luncheon	1,040.90
Conference on medical writing	384.91
TOTAL EXPENSES	$ 52,147.82
GAIN OR (LOSS) DURING PERIOD	$ 1,973.62

INCOME AND EXPENSE OF THE PROFESSIONAL RELATIONS ACCOUNT

Fiscal Year Ended November 30, 1959

INCOME	*Actual*
Allocation from dues	$ 36,460.09
TOTAL INCOME	$ 36,460.09
EXPENSES	
Rent to Wayne County Medical Society	$ 2,036.00
Salaries	23,026.77
Telephone and telegraph	946.14
Travel and entertainment	5,602.51
National meeting expense	2,150.61
County secretary's—Public Relations Conference	7,164.18
County society and field secretary meetings	15.00
Woman's auxiliary	1,600.78
Printing, mailing and postage	589.14
TOTAL EXPENSES	$ 43,131.13
GAIN OR (LOSS) DURING PERIOD	$ (6,671.04)

SCHEDULE A.

SECURITIES OWNED—NOVEMBER 30, 1959

UNITED STATES GOVERNMENT SECURITIES	Maturity Date	Face Value 11-30-59	Cost (Book Value) 12-1-58	Redemption or Market Value 11-30-59	Purchases During Period	Sales or Redemptions During Period	Amortization Debit or (Credit)	Cost (Book Value) 11-30-59	Interest Received to Last Interest Date
Savings Bonds—Series "G"	3- 1-60	$ 5,000.00	$ 5,000.00	$ 4,960.00	$	$	$	$ 5,000.00	$ 125.00
Treasury Bond—Series "B" 2¾%	4- 1-80-75	8,000.00	8,142.81	8,000.00			(8.92)	8,133.89	330.00
Savings Bonds—Series "K" 2.76%	6- 1-66	45,000.00	45,000.00	43,515.00				45,000.00	1,242.00
Savings Bonds—Series "K" 2.76%	7- 1-66	4,000.00	4,000.00	3,868.00				4,000.00	110.40
Treasury Bond—2¼%	6-15-62-59	25,000.00	25,000.00	23,375.00				25,000.00	562.50
Treasury Bond—2½%	3-15-70-65	10,000.00	9,840.62	8,243.75			26.56	9,867.18	250.00
Treasury Bond—2½%	11-15-61	25,000.00	24,665.62	23,765.63			167.18	24,832.80	625.00
Treasury Bond—2½%	11-15-61	35,000.00	34,466.25	33,271.87			266.87	34,733.12	875.00
Time Certificate—3-13-57									
Michigan National Bank—3%	30 days notice	—0—	40,000.00	—0—		40,000.00		—0—	1,142.23
Savings Deposit Receipt—10-24-57									
Michigan National Bank	Demand	5,000.00	15,000.00	5,000.00		10,000.00		5,000.00	441.66
Savings Deposit Receipt—8-27-58									
Michigan National Bank	Demand	—0—	30,000.00	—0—		30,000.00		—0—	1,000.00
Savings Deposit Receipt—5-28-58									
Michigan National Bank	Demand	5,062.50	5,062.50	5,062.50				5,062.50	151.86
Savings Certificate—		—0—			60,000.00	60,000.00		—0—	1,320.00
Michigan National Bank									
TOTAL SECURITIES		$167,062.50	$246,177.80	$159,061.75	$60,000.00	$140,000.00	$451.69	$166,629.49	$8,175.65
Interest on Savings Account									317.31
Interest on Loan									189.19
TOTAL INTEREST EARNED									$8,682.15

INCOME AND EXPENSE OF THE RHEUMATIC FEVER CONTROL PROGRAM

Fiscal Year Ended November 30, 1959

	Actual
INCOME	
Grant from Michigan Heart Association	$ 6,825.00
TOTAL INCOME	$ 6,825.00
EXPENSES (Central Office)	
Committee meetings	$ 115.15
Printing, mailing and postage	51.21
TOTAL CENTRAL OFFICE EXPENSES	$ 166.36
CONTROL CENTERS	
Alpena	$ 200.00
Ann Arbor	614.00
Bay City	590.00
Detroit	233.50
Grand Rapids	1,423.20
Kalamazoo	1,530.00
Muskegon	—0—
Petoskey	—0—
Pontiac and Royal Oak	—0—
Saginaw	—0—
Traverse City	672.00
TOTAL CONTROL CENTERS	$ 5,262.70
TOTAL EXPENSES	$ 5,429.06
GAIN OR (LOSS) DURING PERIOD	$ 1,395.94

PROPERTY AND DEPRECIATION ALLOWANCES
November 30, 1959

	Date Acquired	Cost	Depreciation Allowance Prior Years	Remaining Cost Beginning of Period	Estimated Life	Depreciation Expense 1959	Depreciation Allowance 11-30-59
Land—606 Townsend	1951	$ 10,000.00	$ —0—	$ 10,000.00		$ —0—	$ —0—
Adjoining lot	1952	6,000.00	—0—	6,000.00		—0—	—0—
Building—606 Townsend	1951	34,500.00	8,404.00	26,096.00	30	1,150.00	9,554.00
		50,500.00	8,404.00	42,096.00		1,150.00	9,554.00
BUILDING IMPROVEMENTS—606 Townsend							
New building entrance	1953	3,917.85	707.35	3,210.50	30	130.55	837.90
Remodel basement and storeroom	1956	1,746.21	140.66	1,605.55	30	58.21	198.87
		5,664.06	848.01	4,816.05		188.76	1,036.77
BUILDING EQUIPMENT—606 Townsend							
Lighting	1952	2,121.50	978.28	1,143.22	15	141.43	1,119.71
Boiler	1952	1,714.59	790.46	924.13	15	114.30	904.76
		3,836.09	1,768.74	2,067.35		255.73	2,024.47
PARKING LOT—606 Townsend	1953	1,913.60	1,036.57	877.03	10	191.36	1,227.93
OTHER REAL ESTATE AND DEPOSITS							
Land—M-78 and Abbott Road	8-19-58	65,646.00	—0—	65,646.00		—0—	—0—
Deposit on adjoining lot	7-24-58	500.00	—0—	500.00		—0—	—0—
New Headquarters Building (under construction)	1959	159,334.14	—0—	159,334.14		—0—	—0—
		225,480.14	—0—	225,480.14		—0—	—0—
TOTALS		$287,393.89	$ 12,057.32	$275,336.57		$ 1,785.85	$ 13,843.17

A New Medical School for Michigan

Warm, and getting warmer, are discussions on the need for, and possible location of, another medical school in Michigan.

Michigan State University boldly entered the controversy recently with a bid for the property in downtown Lansing presently occupied by the Boys Vocational School. This institution is moving shortly to new quarters at Whitmore Lake and the large expanse of grounds and commodius, though somewhat worn, buildings in Lansing will soon stand idle. Their location is contiguous to the Edward Sparrow Hospital which has just recently added new wings to raise its capacity to 391 beds.

Putting it mildly, this poses a public relations problem for the Michigan State Medical Society. Wide disparity of opinion exists among Michigan doctors of medicine. Generally speaking, there seems to be agreement that Michigan can use additional M.D.'s and this demand will increase rather than decrease as Michigan's population burgeons.

On the other hand, the best ways and means of obtaining more medical care, the real problem, enjoy no such unanimity of opinion. Some of the state's leaders emphasize that the real answer is to increase rapidly the number of medical associates rather than M.D.'s.

MSMS has expressed itself publicly as not wishing to comment at this time on the possible location of a new medical school. It has emphasized that it would be more economical to expand Wayne State University which is presently limited to accepting 125 freshmen (the University of Michigan Medical School takes 200 freshmen). Estimated costs for a new medical school start at 20 million bouncing up to 100 million, depending upon the estimator and his concept of a medical school. The State Society has also indicated the necessity for an adequate supply of clinical material being available to any new school, a situation hard to come by except in the larger metropolitan areas.

Medical educators wonder where the students would come from for a new school, in view of the difficulty that the present medical schools are having in filling their freshman classes with promising youngsters. The MSMS House of Delegates recognized this problem and urged that a campaign be inaugurated to interest good students in becoming M.D.'s. Such a campaign is being planned under the direction of the MSMS Public Relations Committee and it will be complemented by a campaign of the Michigan Health Council to obtain more medical associates.

Make Study of Discipline in Medical Profession

The American Medical Association has appointed a committee known as the Medical Disciplinary Committee which is now holding regional meetings in various parts of the United States. The primary objective is to evaluate the effectiveness of present procedures used by various state boards and other governmental agencies involved in the control of licensed professions.

A questionnaire was sent out to state boards, and medical associations early in 1958.

Several preliminary factors now appear significant—

(1) Discipline in the medical profession is a vague and undefined aim both at the legal and professional levels in medicine;

(2) The medical associations are generally powerless, except to expel from membership, in cases involving serious crimes or unprofessional conduct;

(3) State boards too frequently do not have the machinery for instituting and conducting hearings in disciplinary matters;

(4) There is little apparent concern over such serious matters as narcotic addiction or fraud and deceit in practice;

(5) Too often a "guilty" physician is encouraged to go to another state;

(6) Probation of various types is being used without any formal program;

(7) There is more emphasis in some areas on interpersonal relations than on legal and professional matters;

(8) There is a marked lack of understanding as to the role of the profession in hospital practice and relations;

(9) There is confusion as to the role of the profession in its association with the paramedical groups;

(10) The segments of the profession at the state and county levels need, and are now beginning to look for, leadership from the American Medical Association on the above matters;

(11) Failure on the part of individual physicians to recognize their responsibility in reporting ethical and professional violations; and

(12) The philosophy of the present administrators of discipline at the legal level is almost negative in some instances and of a very conservative and reluctant nature in others.

How serious is this matter? If a state cannot, or does not, for just cause, revoke a license or discipline a physician, it should take a critical look at its obligation. If there is no central authority above the pressure of individuals in which power for revocation is vested, a fatal weakness exists. If no machinery exists for investigation and hearings, and if recommendations cannot be made on the basis of established evidence, discipline does not really exist. If there is nothing beyond what the state or county society can do, a license to practice also becomes a potential license for abuse.

(Digested from *Federation Bulletin*, Federation of State Medical Boards of the U.S., Volume 47, No. 1)

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BALTIMORE

AMA Report Describes Washington Situation on Forand Legislation

(This regular monthly summary of Washington news is prepared by the AMA for use in the Michigan Journal.)

Congress appears headed for a showdown this session on legislation for the Federal government to provide medical care for aged persons.

The medical profession and allied groups stepped up their activities in opposition to such legislation as indications mounted that the issue was approaching a crucial stage. Several State Medical Societies will send delegations to Washington to personally express their opposition to their Congressmen.

Pressure behind such legislation began to build up early in February.

Without amplification, President Eisenhower told a recent news conference that there was under consideration "a possible change" in the Social Security Act "to run up the taxes by a quarter of a per cent to . . . make greater provision for the care of the aged." The President's statement that "there has been no conclusion reached in the administration" was backed up by Arthur S. Flemming, Secretary of Health, Education and Welfare, in a clarifying announcement.

Flemming said his department was working on two other approaches in addition to the possible revision of the Social Security law mentioned by Mr. Eisenhower. He said consideration was being given to: (1) stepped-up Federal assistance under the Federal-state public assistance program, and (2) the Federal government supplementing voluntary insurance programs.

Flemming again expressed opposition to the Forand bill. The Secretary said he wanted to "underline that the position of the administration is opposition to the Forand bill."

Flemming said he hoped to have an administration bill ready to submit in early April to the House Ways and Means Committee where the Forand bill is pending. The Committee is scheduled to take up in late March or early April proposed changes to the Social Security Act.

Proponents of the Forand bill are pointing campaigns toward securing the House Committee's approval of the legislation.

The AFL-CIO, a main supporter of the Forand bill, urges labor union members to write to congressmen on the Committee urging them to vote for it. The AFL-CIO also distributed a pamphlet quoting a handful of physicians as supporting the legislation. But the labor organization didn't mention that the overwhelming majority of doctors oppose it.

The Senate Subcommittee on Problems of the Aged and Aging, headed by Sen. Pat McNamara (D., Mich.), issued on behalf of its Democratic majority a report stating that use of the Social Security program "is the most efficient procedure for providing" health care for older persons.

The AMA and the Subcommittee's Republican minority promptly disputed this conclusion. An AMA statement issued in Chicago said:

> The American Medical Association today sharply disagreed with the recommendation of the McNamara subcommittee regarding government medicine for Social Security beneficiaries.

Dr. Louis M. Orr, Orlando, Florida, President of the AMA, said:

> "This is a politically inspired committee. Senator McNamara, Democrat from Michigan, has long supported political medicine. The fact is that at the seven subcommittee hearings held throughout the United States, observers heard little support expressed by the older citizens who attended the hearings for government medicine financed by additional taxes and administered through Social Security."

The Republican minority stated that testimony before the Subcommittee "proves that it is possible for elderly people to secure private insurance to provide hospitalization and surgical benefits without any intervention by public authorities."

Sen. John F. Kennedy (D., Mass.), a leading contender for the Democratic nomination for President, introduced legislation similar to the controversial Forand bill but broader in scope. The Kennedy bill would eliminate surgical benefits but would add diagnostic outpatient and home nursing services.

Germany Host to WMA

The German Medical Association, host for the XIVth General Assembly of The World Medical Association in Berlin, September 15-22, 1960, has extended a cordial invitation to all M.D.'s to attend this meeting. Special plans are already far advanced for this meeting. The German Medical Association has scheduled its own annual meeting in conjunction with the General Assembly and the opening and closing plenary sessions of the two organizations will be held together. All activities will be held in the new Berlin Convention Hall.

The convening of the General Assembly and numerous other international and national meetings in Europe during August and September provide doctors an opportunity to use the Medical Diplomat passport.

Says Poor Reporting Could Lead to Medical Care Lag

Unrestrained reporting of medical news could be a deterrent to progressive medical care.

That possible danger was cited by Robert D. Potter, editor of *New York Medicine,* at Michigan State University recently where he presented the second annual Yates Memorial Lecture. The lecture to students, faculty, physicians and others was sponsored again by the Michigan Tuberculosis Association in memory of Charles Yates, former MTA president.

"The unrestrained reporting of medical news . . . builds up in the public mind a false picture that medical research (and physicians) can do the impossible," the speaker said.

Potter cited overzealous medical reporting as being partly the cause of an unrealistic public attitude that treatments and drugs are always "perfect" and any failures are due to doctor negligence.

True negligence, he said, should be punished. "But when a physician or surgeon is penalized for rendering the most modern and accepted treatment, then one approaches the day when new experimental treatment or operation will vanish."

"The doctor will perhaps be thinking more about a potential lawsuit than the welfare of his patient. Or he will use bee stings instead of cortisone for arthritis," he said.

Another big job of the medical reporter, Potter pointed out, is to tell the public what is going on in the social and economic sides of medicine.

Social security medical benefits, fair hospital fees and trade union medical programs are all subjects the public needs to know about, he said.

Potter mentioned the Forand bill introduced in Congress to put compulsory health insurance into the social security program. He asked, "Is this not a form of government medicine?" "Is this what the public really wants?"

He explained that questions like these can only be answered by a well informed public. It is the job of medical reporting to give them the right information.

Pathological Society Elects

The new officers for the Michigan Pathological Society for 1960 are President John W. Rebuck, M.D., Detroit; Viola G. Brekke, M.D., Highland Park, president-elect; and James G. Wolter, M.D., Detroit, secretary-treasurer. Dr. Wolter will serve as Officer of the MSMS Section on Pathology, Radiology and Anesthesiology.

Committee on Trauma Elects

Joseph Posch, M.D., Detroit, is the new chairman of the Michigan Committee on Trauma of the American College of Surgeons. The new secretary is Wayne W. Glas, M.D., Eloise.

Presidents of the five societies (*left to right*) are N. O. Salter, P.E., Michigan Society of Professional Engineers; Milton A. Darling, M.D., Michigan State Medical Society; Murray A. Leitch, D.D.S., Michigan State Dental Association; Burney C. Veum, LL.B., State Bar of Michigan, and C. A. OBryon, Michigan Society of Architects.

William M. LeFevre, M.D., Muskegon, president of The Michigan Association of the Professions.

Hold MAP Congress

Groups representing the five professions of architecture, dentistry, law, medicine and engineering, about a year ago, established the Michigan Association of the Professions.

The infant group has been developed into an organization of more than 3,000 charter members.

A Congress of the Professions was held at the Sheraton-Cadillac Hotel, Detroit, January 23, with a preliminary day, January 22, devoted to committee hearings and a President's Invitational Banquet.

Five committees had been appointed which met at noon and outlined their work before they opened hearings. The hearings in separate rooms were (1) Committee on Education, Dr. Gordon H. Scott, Dean Wayne University School of Medicine, Chairman; (2) Committee on Business Services and Techniques, Elmer J. Manson, A.I.A., Chairman; (3) Committee on Public Relations, Charles H. MacMahon, Jr., A.I.A., Birmingham, Chairman; (4) Committee on Publications, L. M. Dunn, P.E., Port Huron, Chairman, and (5) Committee on Legislation, John G. Nolen, D.D.S., Chairman. After the open hearing, each committee outlined an official report for Congress meeting the next morning.

The President's Invitational Dinner was held in the Book Casino room with William L. LeFevre, M.D., of Muskegon, presiding as President. The toastmaster was Lester P. Dodd, J.D. of Detroit. The speaker was Dr. Kenneth McFarland, educational consultant for General Motors Corporation. Dr. McFarland, a noted lecturer, declared, "In the year ahead, Americans will be earning an annual rate of more than $400 billion and will be producing at the rate of more than $500 billions. These predictions will come true if our people make them come true. The ingredients of prosperity can do little more than exist, they must properly be mixed to produce prosperity."

He concluded, "Let us rejoice and be glad that the basic rules are working again in 1960, and that those who play by the rules may again be assured of victory. It is in this fact that we have our greatest cause for optimism as we move into a new year and a new decade."

On January 23, the Congress was called to order at 9:30 by William M. LeFevre, M.D., president. Charles H. King, Dean, Detroit College of Law, was the parliamentarian. The invocation was pronounced by Charles L. Goldstein, attorney-at-law.

The reports of committees had been mimeographed and were explained by the chairmen. After the committee reports was the election of board members.

The keynote speaker was the Honorable Gerald R. Ford, Jr., of Grand Rapids, U. S. Congressman from the Fifth District of Michigan. He said, "What I am saying has particular meaning for you and your new organization. I hold you in high regard, for I am a member of one of the professions represented here, but I ask you quite frankly whether our professional people and their organizations in the crucial struggle for the preservation of our institutions have taken the easy way out by an excessive preoccupation with political neutrality? That is a question which every individual or group in our nation should now be asking itself, individually and collectively."

The noonday meal was presided over by Floyd D. Ostrander, D.D.S., MAP vice-president. The invocation was by The Reverend Jesse Jai McNeal, Minister, Baptist Church, Detroit, and the speaker was Doctor Arthur S. Flemming, Secretary, U. S. Depart-

ment of Health, Education and Welfare. Dr. Flemming's talk was very impressive and congratulatory upon the movement being made here in Michigan by the Congress of the Professions.

The afternoon featured a President's Panel. The speakers were David D. Allman, M.D., Past President, AMA; Clark A. Dunn, P.E., Immediate Past President, National Society of Professional Engineers; Rudolph H. Friedrich, D.D.S., Secretary, Council on Dental Health, American Dental Association; Charles S. Rhyne, LL.B., Past President, American Bar Association; and John Noble Richards, F.A.I.A., President, American Institute of Architects. Every speaker commented upon the movement of an association of the professions, emphasizing the many points in which the professions are similar, and the many points in which the one may help the other.

The evening meal in the Grand Ballroom concluded the Congress. Presiding was The Honorable John R. Dethmers, Chief Justice, Supreme Court of Michigan. The invocation by The Reverend G. Merrill Lenox, Executive Director, Michigan and Detroit Council of Churches. Hugh W. Brenneman was toastmaster. The speaker was George Romney, president, America Motors Corporation, and chairman of the Citizens' Committee for Michigan. This address was broadcast over radio at 8:05 in the evening.

The aims of the Citizens' Committee for Michigan are explained by George Romney, chairman of the Committee and president of American Motors Corporation, at the closing banquet. Hugh W. Brenneman was toastmaster.

Arthur S. Flemming, left, Secretary, U. S. Department of Health, Education and Welfare, was the luncheon speaker. At right, Albert E. Heustis, M.D., State Health Commissioner.

The Honorable Gerald R. Ford, Jr., U. S. Congressman, Fifth District, gave the keynote speech.

Reveal Speakers for May 4 "Symposium on Cerebral Palsy"

A "Symposium on Cerebral Palsy" will be presented under the auspices of the United Cerebral Palsy Association of Michigan at the Wayne County Medical Society Building, Detroit, May 4.

Those who will speak and lead discussions on the following facets of the problem of cerebral palsy are:

John A. Churchill, M.D., Associate Neurologist, Henry Ford Hospital, Detroit: "Etiology, Pathology and Prevention of Cerebral Palsy."

Winthrop M. Phelps, M.D., Medical Director, Children's Rehabilitation Institute for Cerebral Palsy, Baltimore: "Early Diagnosis of Cerebral Palsy."

Brewster S. Miller, M.D., Medical Director, United Cerebral Palsy Associations, New York City: "Cerebral Palsy Today."

Meyer A. Perlstein, M.D., Children's Neurology Service, Cook County Hospital, Chicago: "Early Neurological Evidences of Cerebral Palsy."

Russell Meyers, M.D., Chairman, Division of Neurosurgery, University of Iowa: "Evaluation and Treatment."

Dr. Phelps will conduct a live clinic.

Advance registration forms will be given wide distribution; those who do not receive registration forms may register by mail with the United Cerebral Palsy Association of Michigan, 206 Hollister Building, Lansing 8.

Urges Auxiliary Members to Help Mold Public Opinion

Every one of the 80,000 members of the woman's auxiliary is in medical public relations.

How can you—a hard and willing worker in the auxiliary—help to mold public opinion on behalf of medicine and the profession?

There is no magic formula. The only way I know to achieve our aim is to keep yourself constantly informed about all the things that affect medicine and the profession.

There is no limit to an auxiliary member's influence and her ability to help other people understand the facts, especially as they relate to socio-economic affairs—hospital costs, drug costs, insurance plans and doctors' fees.

Socio, incidentally, means "the people;" economics means their pocketbooks. The term socio-economics of medicine applies to the way all different groups of people obtain and pay for their medical services.

Auxiliary members are interested in these problems. One of the best ways to keep yourself informed about them is to read *A.M.A. News* from cover to cover. Read other official medical publications. Discuss the more complex problems with your husband. Study trends not only in medicine but in allied medical fields.

—Mrs Frank Gastineau, President, Woman's Auxiliary (*Woman's Auxiliary—A.M.A. Bulletin*, Vol. 21, No. 2)

AAMA Honors Doctor Rice

John W. Rice, M.D., Jackson, is the new chairman of the advisory board of the American Association of Medical Assistants Board of Trustees. Active also with the Michigan group, Doctor Rice has been a member of the AAMA board since 1958.

The AAMA, a young fast-growing organization, seeks to offer educational programs for its members and other services so the medical assistants will be of even greater value to her physician-employer and his patients.

Charles H. Mayo, M.D.: Medicine is about as big or as little in any community, large or small, as the physicians make it.

* * *

French Proverb: People count up the faults of those who keep them waiting.

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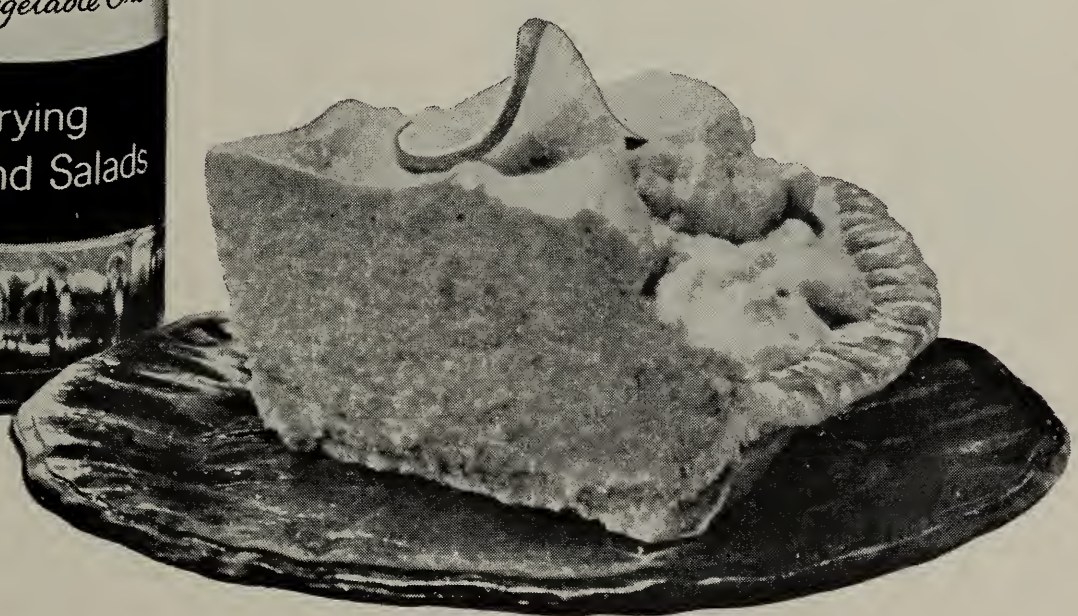
This flaky pie crust, *crisp cookies, Chiffon cakes, biscuits can all be made easily with Wesson. Decrease the calories of pie by preparing with single crust and a fresh fruit or gelatin filling. It is delicious.*

FREE *Wesson recipes are available in quantity for your patients, showing them how to prepare these treats as well as main dishes, vegetables and salads with poly-unsaturated vegetable oil. Request quantity needed from The Wesson People, Dept. N., 210 Baronne St., New Orleans 12, La.*



Wesson satisfies the most exacting appetites. To be effective, a diet must be *eaten* by the patient. The majority of housewives prefer Wesson particularly by the criteria of odor, flavor (blandness) and lightness .of color. (Substantiated by sales leadership for 59 years and reconfirmed by recent tests against the next leading brand with brand identification removed, among a national probability sample.)

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Wesson is 100% cottonseed oil . . . winterized and of selected quality

Linoleic acid glycerides (poly-unsaturated)	50-55%
Oleic acid glycerides (mono-unsaturated)	19-28%
Total unsaturated	75-80%
Palmitic and stearic glycerides (saturated)	20-25%
Phytosterol (predominantly beta sitosterol)	0.4-0.7%
Total tocopherols	0.09-0.12%

Never hydrogenated—completely salt free

Each pint of Wesson contains 437-524 Int. Units of Vitamin E.

HEART BEATS

(This material is provided by the Michigan Heart Association)

Honors Medical Students

Two Medical Student Research Fellows were honored at a luncheon on February 2 at the David Whitney House. F. D. Dodrill, M.D., Chairman of the Research Committee, presented the Michigan Heart Association Distinguished Achievement Award to Condon R. Vander Ark, junior medical student from Grand Rapids at the University of Michigan, and the Meritorious Achievement Award to Drake Duane, sophomore medical student from Detroit at Wayne State University.

Mr. Vander Ark worked with Ernest W. Reynolds, Jr., M.D., on "Experimental Study of the Origin of T Waves Based on Determinations of the Effective Refractory Period from the Epicardial and Endocardial Aspects of the Ventricle." Their paper was presented at the 32nd Scientific Session of the American Heart Association in Philadelphia last October.

Mr. Duane worked under Walter H. Seegers, M.D., Wayne State, and Jack Werboff, M.D., Lafayette Clinic, on "Changes in Cardiac Rate and Rhythmicity Due to the Repeated Hyperemotionality of an Avoidance Learning Program."

Donald S. Smith, M.D., Pontiac, President of the Michigan Heart Association stated that "student research is the keystone of our research program and lays the groundwork for future development of physicians interested in cardiovascular research."

New Education Materials Available

FILM: "Cerebral Vascular Diseases: The Challenge of Management" 16mm., 37½ minutes running time, black and white, sound.

Presents concepts and techniques basic to the management of persons who have suffered strokes. For physicians, nurses, medical students, hospital staffs, physical therapy specialists. (A companion film "CVD: The Challenge of Diagnosis" has been announced by the American Heart Association for availability this spring.)

SLIDE RESOURCE KIT: A collection of 192 slides which includes:

For Medical Audiences Only

Electrocardiogram Slide Set—119 b&w slides
Heart Drawings—3 color slides and legend
Heart Models and Cardiac Silhouettes—36 color slides

For Medical, Paramedical and Lay Audiences

Circulatory System—1 color slide
Coronary Circulation—1 b&w slide
Coronary Heart Disease—2 b&w slides
Development of Atherosclerosis—4 b&w slides

For Paramedical and Lay Audiences

Heart of the Home—21 color slides with script
Strokes—4 color slides

Course for Technicians

With the support of the Michigan Heart Association, the Anticoagulant Unit and the Department of Postgraduate Medicine of the University of Michigan Medical Center offer a five-day course in techniques in prothrombin testing. This program, providing individual instruction for one or two technicians at a time, is open throughout the year to individuals engaged in medical technical work. Laboratory and registration fees will be underwritten by the Michigan Heart Association. Travel and housing expenses are not covered and technicians should make arrangements through their employers.

Further information and application blanks may be obtained from: Medical Director, Michigan Heart Association, 3919 John R, Detroit 1, Michigan.

Circulation—Circulation Research

The American Heart Association and its affiliates have taken over an important new responsibility, publishing of the two outstanding scientific journals *Circulation* and *Circulation Research*.

Circulation which emphasizes clinical developments and *Circulation Research*, which emphasizes developments in cardiovascular research, are designed to bring the physician and medical scientist important developments in the cardiovascular field.

Subscriptions to either or both of these journals can be obtained by mailing the coupon below.

— — — — — — — — — — — — — — — — — — — —

TO: PUBLISHING DIRECTOR, AMERICAN HEART ASSOCIATION
44 EAST 23rd ST., NEW YORK CITY

Enclosed is a check for $..... for my 1960 subscription to (please check):

CIRCULATION ($14)..... CIRCULATION RESEARCH ($9)..... COMBINATION ($21).....

NAME .....

Address .....

City..... State.....

(Continued on Page 492)

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calling for just one tablet per day will carry her through term to the six-week postpartum check-up. Thus, you help to assure a nutritionally perfect pregnancy, while providing the convenience and economy of the re-usable Term-Pak.

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DRIVE-UP PHARMACY
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Grand Rapids, Michigan

(Continued from Page 490)

Europe Bound Patients?

A list of physicians and laboratories in the following European countries may be obtained through the Michigan Heart Association for patients of Michigan physicians: Finland, Ireland, Italy, Norway, Poland, Portugal, Sweden, United Kingdom, and West Germany. The names of several cardiologists in any of the countries indicated can offer consultation, which might include a determination of prothrombin time.

Invite Memberships

The Michigan Heart Association invites all medical doctors to become active members in the Association. A five dollar membership includes automatic membership in the American Heart Association and the following dividends:

A one-year subscription to the following publications:

Modern Concepts of Cardiovascular Disease (issued monthly).
Heart Research Newsletter (issued quarterly).
The American Heart Quarterly
Challenge, Michigan Heart Association Newsletter (quarterly).
Admission to Scientific Sessions of MHA and AHA.
New Heart Literature.

Membership application and complete details may be obtained by writing to the Michigan Heart Association, 3919 John R, Detroit 1, Michigan.

Anticoagulant I.D. Cards

Identification wallet cards for persons on anticoagulant medication may be obtained in bulk quantities by physicians for distribution to patients.

In Lansing

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400 ROOMS

List Leading Causes of Death

Heart disease, cancer, strokes and accidents accounted for 71 per cent of all deaths in 1958, according to final data on 1958 mortality just released by the Public Health Service's National Office of Vital Statistics.

The 1,647,886 deaths that occurred in 1958 gave the nation a death rate of 9.5 per 1,000 population, compared to a rate of 9.6 in 1957. The number and the rates per 100,000 population for each of the four leading causes of death in 1958 follow:

	Number	*Rate*
Heart disease	637,246	367.9
Malignant neoplasms, of cancer	254,426	146.9
Vascular lesions (chiefly strokes)	190,758	110.1
Accidents, all forms	90,604	52.3
Motor-vehicle accidents	36,981	21.3
All other accidents	53,623	31.0

The death rates for heart disease and cancer in 1958, 367.9 and 146.9, respectively, were slightly lower than the comparable rates in 1957, 369.6 and 148.7. The rate for vascular lesions remained about the same.

The death rate for accidents, 52.3, was almost 7 per cent lower than the rate of 56.0 in 1957, with the percentage decrease being slightly lower for motor-vehicle accidents than for all other forms of accidents.

Chiefly as a result of the influenza epidemic of 1957-58, the toll of deaths from influenza and pneumonia remained high in 1958—57,439 deaths, or a death rate of 33.2 per 100,000 population.

OFFER SCHOLARSHIPS.—Scholarships to the Midwest Institute of Alcohol Studies, June 13-17, at the University of Wisconsin and the Yale Summer School of Alcohol Studies, June 26 to July 21, have been made available by the State Board of Alcoholism. The scholarship grants, designed for professional people interested in gaining a better knowledge of alcoholism, will include room, meals and tuition. Scholarship application may be sent to State Board of Alcoholism, 230 North Grand Avenue, Lansing.

NUTRITION CONFERENCE.—The Sixth Annual Nutrition Conference will be sponsored by Wayne State University College of Medicine, Friday, March 18. Speakers on the general subject, "Prospects in Nutrition" will include Paul L. Day, M.D., of the U.S. Food and Drug Administration, Howard A. Schneider of the Rockefeller Institute, Paul L. White, M.D., of the American Medical Association, and James L. Wilson, M.D., of the University of Michigan. Members of the Michigan State Medical Society are cordially invited.

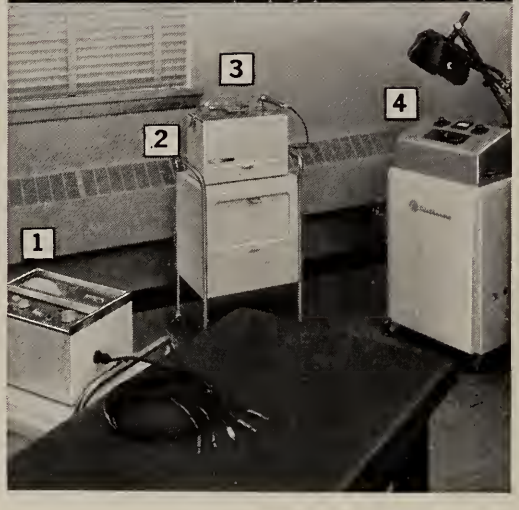
QUOTES MSMS JOURNAL.—The Council on National Defense of the American Medical Association in its Civil Defense Review, December, 1959, has a paragraph as follows:

"The Atom in Peace and War"

"The Journal of the Michigan State Medical Society devotes its October, 1959, issue to the atom as encountered in peace as well as in war. Michigan planning and the radiation effect on civil populations is discussed in articles on the destructive aspects of the atom while the use of radioisotopes in medicine and industry are considered in articles dealing with peactime applications. This national defense issue was prepared with the help and

Burdick

electronic aids for diagnosis and treatment



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2 **UT-400 PULSED ULTRASONIC UNIT** — Continuous or pulsed energy. Compact, portable, six sq. cm. radiating area.

3 **MS-300 MUSCLE STIMULATOR** — Ideal for stimulation of innervated muscle tissue. Can be used in combination with the UT-400, as illustrated above.

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direction of the Committee on National Defense of the Michigan State Medical Society. Single copies are available at a cost of sixty cents from the Society at 606 Townsend Street, Lansing 15, Michigan."

GRANTS OFFERED.—The research committee of the National Society for the Prevention of Blindness invites requests for research grants in 1960. Funds are available for projects that may contribute to basic understanding of eye function and pathology, or that may improve methods of diagnosis, treatment or prevention of blinding eye disease. Grants will be made this spring for requests received by April 1. Inquiries may be addressed to Research Committee, National Society for the Prevention of Blindness, 1790 Broadway, New York 19.

GRAND ROUNDS U-M MEDICAL CENTER.—Every Saturday, except holiday week ends, Grand Rounds will be held at the University of Michigan Hospital, 2nd floor, Amphitheater, Room 2450, 8:30 to 10:00 a.m. under Dr. Reed M. Nesbit in Urology; Dr. Cameron Haight in Thoracic Surgery; Dr. Edgar A. Kahn in Neurology and Dr. Carl E. Badgley in Orthopedics. All Grand Rounds are held under the general direction of Dr. Charles G. Child III, Professor of Surgery, and Chairman of the Department.

PSYCHIATRIC TELEVISION COURSES.—Under the sponsorship of the Wayne State University College of Medicine's Department of Psychiatry, and the Michigan Academy for General Practice, there will be given a fully accredited post-graduate course in psychiatry on television and FM radio. The television program will be given on the ultra-high frequency station of Wayne State University, WFVS, Channel 56, every Tuesday evening at 9:00 p.m., beginning Feb. 2. The program will last approximately an hour.

These programs will be re-broadcast each Thursday at 8:00 p.m., over the University's FM station (WDET—101.9 on the FM dial).

For information and registration, write the Registrar, 1806 Rivard Street, Detroit 7.

DR. THOREK DIES—Dr. Max Thorek, seventy-nine, prominent Chicago physician, lecturer, author and teacher, died January 25, 1960, of a heart attack.

Dr. Thorek was founder of the International College of Surgeons and its Hall of Fame, founder and chief surgeon of Chicago's American Hospital, attending surgeon of Cook County Hospital, and professor of clinical surgery at the Cook County's graduate school of medicine.

He was a member of the National Academy of Medicine, Colombia, S.A.; National Gastroenterological Society, International College of Anesthetists, Royal Society of Arts, the American College of Gastroenterology, and the Royal Photographic Society of Great Britain.

He also was a member of the American Medical Editors and Authors Association, American Eugenics Society, German Medical Society, and the Chicago Historical Society.

Dr. Thorek was awarded honorary degrees by Lincoln Memorial University, Wesleyan College, the University

(Continued on Page 498)

Each of the babies pictured on this page was borne by a mother with a *documented* previous history of true habitual abortion, who was treated with DELALUTIN during the pregnancy leading to this birth

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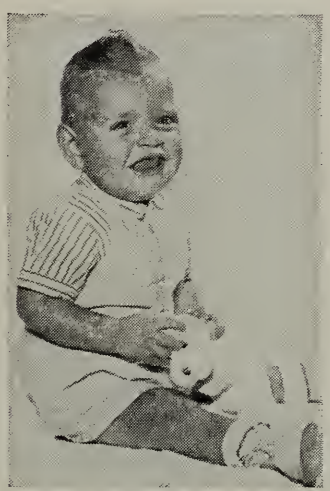

No. Massapequa, L. I., N. Y.

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(Continued from Page 496)

of Istanbul, Turkey, and by many governments and educational institutions.

Dr. Thorek is survived by his widow, Fannie, and a son, Dr. Philip Thorek, Assistant Secretary General of the International College of Surgeons.

CONTINUES STUDY.—Edward F. Domino, M.D., Ann Arbor, will continue his study for a second year of the effects of drugs on the brain. The study is being financed by a grant of $10,422 from the United Cerebral Palsy Association to the University of Michigan Medical Center.

GETS CANCER GRANT.—William H. Beierwaltes, M.D., Ann Arbor, has received a grant of $2,000 from the Cancer Research Institute at the University of Michigan Medical Center for research titled "Antibodies to Thyroid Cancer."

U. P. CONFERENCE.—A Conference of Premature Infant Care for graduate professional nurses working in hospitals in the Upper Peninsula will be conducted at the Wallace Nurses Home, 400 West Magnetic Street, Marquette, Michigan, on April 19 and 20. The conference is being co-sponsored by the Michigan Department of Health and the Upper Peninsula Hospital Council. Information regarding this conference can be obtained from Goldie B. Corneliuson, M.D., Director Division of Maternal and Child Health, Michigan Department of Health, Lansing 4.

ON EDITORIAL BOARD.—Edward A. Carr, Jr., M.D., Ann Arbor, is a member of the editorial board of the new *Clinical Pharmacology and Therapeutics Journal.* The first issue of the new journal appeared in January.

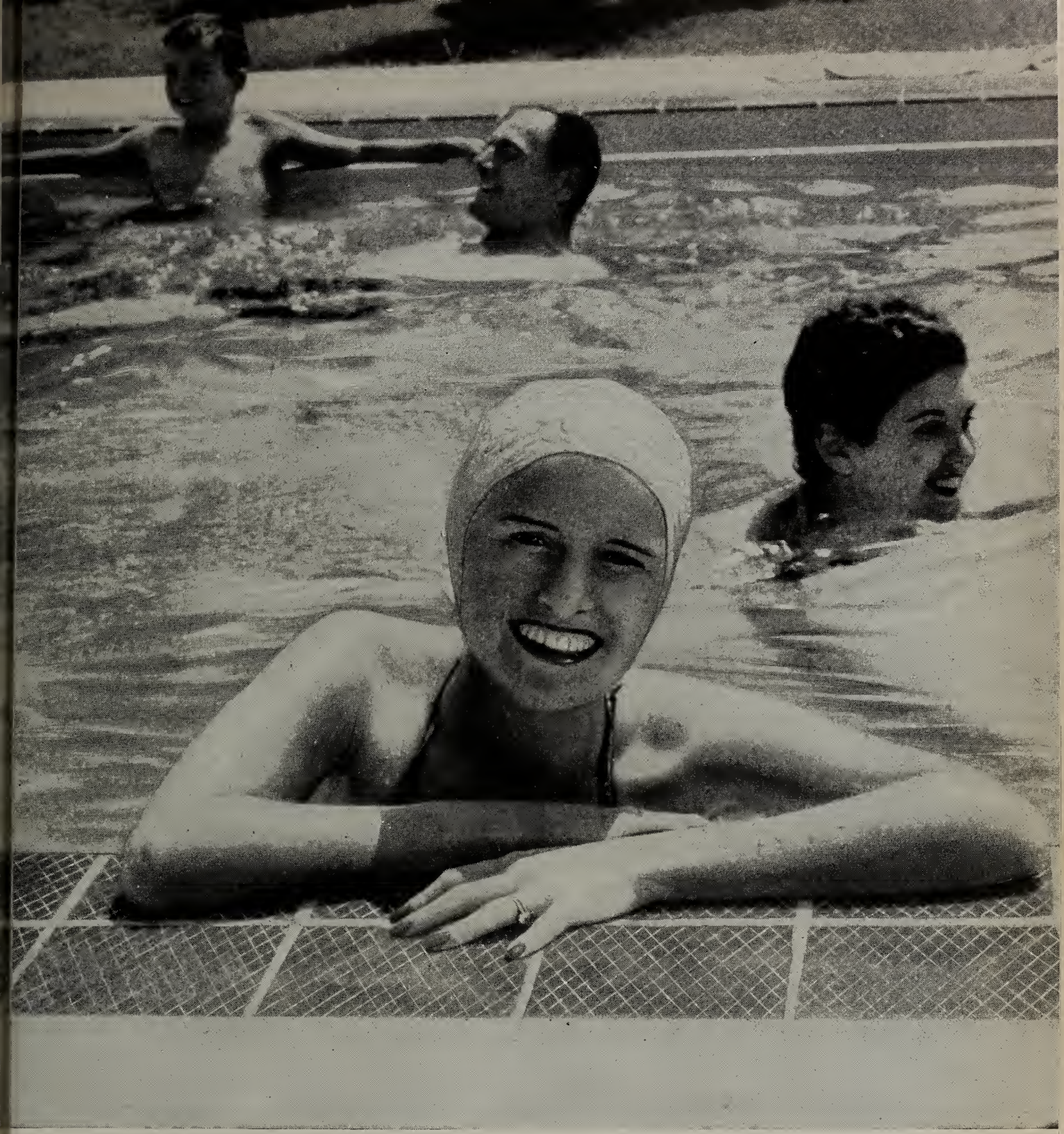
ESTABLISHES U-M FUND.—James E. Lofstrom, M.D., Detroit, has contributed $500 to the University of Michigan to establish the Mr. and Mrs. George Niess Memorial Fund "to support research in the writings and career of Emile Zola with special reference to his relationships with impressionist painters."

NEW FIFTY-YEAR CLUB.—J. H. McCurry, M.D., of Cash, Arkansas, advises that he has the approval of the American Medical Association to organize a Fifty-Year-Club within the AMA. Dr. McCurry is anxious to hear from physicians who have been in practice fifty years or more who desire to become members of this club, giving their name and a complete address.

The first meeting is to be held in Washington, D. C., at the Clinical meeting November 29 to December 2.

MEDICAL TELEVISION SHOWS.—The Michigan Health Council reports that the following topics were covered during January on the weekly Sunday morning program over WJBK-TV in Detroit: Medical Assistants, Preparing Your Child for School, Polio and The National Foundation, Cerebral Palsy, Heart.

(Continued on Page 500)



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When, because of the menopause, the psyche needs nursing—"Premarin" nurses. When hot flushes need suppressing, "Premarin" suppresses. In short, when you want to treat the whole menopause, (and how else is it to be treated?), let your choice be "Premarin," a complete natural estrogen complex.

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(Continued from Page 498)

OPHTHALMOLOGY DIPLOMATES.—From January 1, 1959 to January 1, 1960, the following Michigan physicians were granted recognition by the American Board of Ophthalmology:

Quentin P. Hamilton, M.D., Detroit; Conrad S. Heyner, M.D., Detroit; William T. Sallee, M.D., Detroit; John B. Burhans, M.D., and Dale F. Roth, M.D., of Grand Rapids. Roland L. Phillips, M.D., of Owosso.

E. L. COOPER SPEAKS.—Guest speakers at the University of Minnesota course on the diagnosis and treatment of strabismus included Edmond L. Cooper, M.D., Detroit. His topics were "Accommodative Esotropia," "Non-Accommodative Esotropia" and "Over-Correction in Muscle Surgery."

LEAVES MICHIGAN.—C. Thomas Flotte, M.D., Ann Arbor, will join the University of Maryland as an associate professor. Dr. Flotte came to Michigan in 1950 after serving as a Navy medical officer. He is well known in both professional and lay circles throughout Michigan. He has conducted medical courses in hospitals affiliated with the U-M Department of Postgraduate Medicine, and has been a frequent participant on the "Prescription for Health" broadcasts co-sponsored by U-M and MSMS.

NEW BOOK.—Creative clinical work and significant laboratory research in the areas of language disorders are revealed in a new publication by the National Society for Crippled Children and Adults. Written for professional workers, a long-term study of children with delayed speech and language is reported by Nancy E. Wood, Ph.D., Cleveland Hearing and Speech Center, in "Language Disorders in Children."

ATTENDS NATIONAL MEETING.—Roger B. Nelson, M.D., Ann Arbor, president-elect of the Michigan Hospital Association, attended the annual congress of the American College of Hospital Administrators in Chicago in February.

DETROIT M.D.'S HONORED.—Samuel G. Reisman, M.D., Detroit, is a new regional vice-president of Phi Lambda Kappa, medical professional fraternity, and Benjamin Brand, M.D., also of Detroit, is a new-elected trustee.

RECEIVES RESEARCH AWARD.—The Department of Dermatology at the University of Michigan Medical Center has won a top international award for research on psoriasis, a skin disease which occurs in a number of forms. The honor, called the J. N. Taub International Memorial Award for Psoriasis Research, carries a $1,000 grant to the winners, administered by Baylor University, Texas.

SPECIAL CAMP.—The Summer Camp for Diabetic Children will be conducted for the twelfth year by the Chicago Diabetes Association from July 17 through August 7, at Holiday Home, Lake Geneva, Wisconsin. Boys and girls from eight through fourteen years of age are eligible.

(Continued on Page 506)

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1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

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(Continued from Page 500)

FOOD ADDITIVES BOOKLET.—A new Food and Drug Administration booklet entitled "What Consumers Should Know About Food Additives" has been published to answer the many questions people are asking about food additives and the new law. The booklet is for sale (15 cents) by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

DEDICATE U-M BUILDING.—The University of Michigan Medical Center formally dedicated a new $1½-million Mental Health Research Institute building in January. Major speakers were Detlev W. Bronk, M.D., president of the National Academy of Sciences, and Ralph W. Tyler, M.D., director of the Center for Advanced Study in the Behavioral Sciences.

The Institute has a staff of over sixty scientists—specialists in psychiatry and the social sciences—who are probing fundamental questions about human behavior. The new building is located at the west end of the U-M Medical Center.

M.D. LOCATIONS.—The current report of the Michigan Health Council includes the following information about doctor-placement activities:

Placed by Michigan Health Council—Frederick C. Reigle, M.D., Litchfield; Thomas J. Grause, M.D., Alpena.

Assisted by Michigan Health Council—John E. Finger, M.D., Ann Arbor.

MEDICAL MEETINGS U.S.A.

Thirteenth Annual Postgraduate Course on Diseases of the Chest, The Council on Postgraduate Medical Education of the American College of Chest Physicians, March 14-18, Sheraton Hotel, Philadelphia.

Advances in Urology, Postgraduate Course, March 16 and 17, North Clinic Building, Cleveland, Ohio; for information contact Education Secretary, Frank E. Bunts, Educational Institute, 2020 East 93rd Street, Cleveland 6.

Twelfth Annual Scientific Assembly, American Academy of General Practice, March 21-24, Convention Hall, Philadelphia.

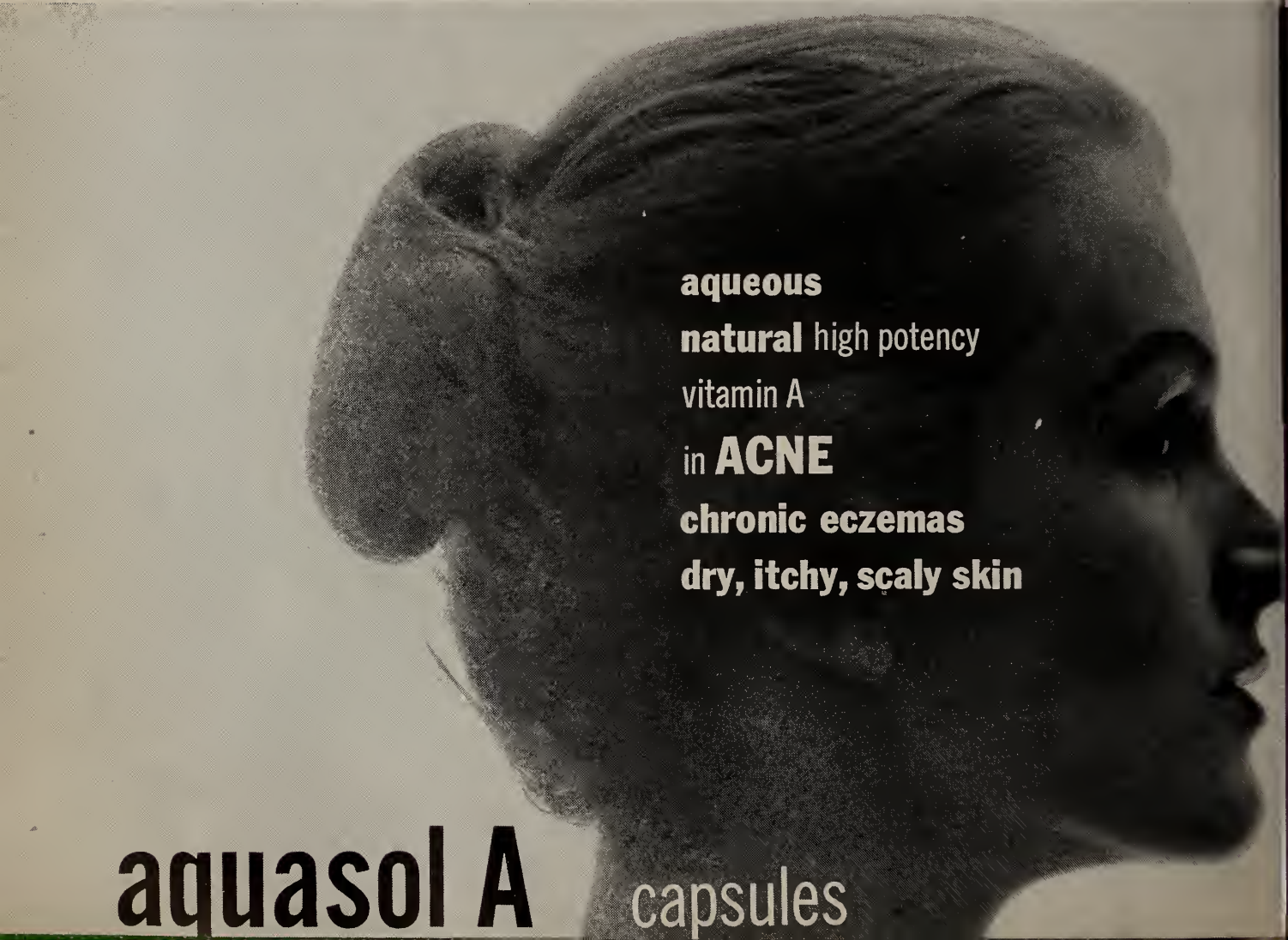
Clinical Reviews, Mayo Clinic and Mayo Foundation, April 4, 5, 6, Rochester, Minnesota; for information contact Clinical Reviews Committee, Mayo Clinic, Rochester, Minnesota.

The Industrial Health Conference (which includes the 25th annual meeting of the Industrial Medical Association), April 26-28, War Memorial Auditorium of Rochester, New York.

Fourth Postgraduate Course on Fractures and Other Trauma, Chicago Committee on Trauma of the American College of Surgeons, April 27-30, John B. Murphy Memorial Auditorium, 50 East Erie Street, Chicago.

Second International Symposium of the Deborah Hospital, April 28-30, Bellevue Stratford Hotel, Philadelphia.

The Student American Medical Association, May 5-7, Statler-Hilton Hotel, Los Angeles.



WSU OFFERS LECTURES—Wayne State University announces the tenth annual Leo M. Franklin Memorial Lectureship in the Human Relations series. The next number will be April 4 on "The Growth of Self Insight" by John M. Dorsey, M.D., professor and chairman, Department of Psychiatry, Wayne State University.

Through the courtesy of Station WDET, The Franklin Lectures will be rebroadcast on Thursdays at 7 p.m., beginning April 21. Other dates of the broadcast are: April 28, May 5, 12, and 19. The lectures will also be rebroadcast this autumn through the nationwide network of the National Association of Educational Broadcasters. Finally, they will be rebroadcast internationally through the Voice of America.

WAYNE BEGINS SERIES.—The first of a series of postgraduate courses in Internal Medicine at Wayne State University College of Medicine will be held April 27 and 28. The two-day course will be on "Cardiology."

WSU EVENT SET MAY 4—All Wayne University Medical School graduates are invited to attend the Annual Alumni Clinic Day, May 4, at the Fort Shelby Hotel, Detroit. The program will begin at 9 a.m. and conclude with an evening dinner and dance.

The Class of 1910 will observe its golden anniversary as one of the banquet highlights. Also, special awards will be given to the outstanding Sophomore student and the outstanding Senior student. Special recognition will be given to graduates or teaching staff members who have distinguished themselves in medical work.

The morning scientific program will begin at 9:30 and the afternoon scientific session will resume at 2 p.m. after the luncheon. The last series of scientific lectures will begin at 3:30 p.m.

Dean G. H. Scott (*left*) of the Wayne State University College of Medicine, accepts a $5,000 check from William H. Morgan, Wyeth Laboratories clinical associate. Center is Dr. Charles S. Stevenson, chairman, Wayne department of obstetrics and gynecology. The grant is one of twenty awards made annually by the Philadelphia pharmaceutical manufacturing firm to selected medical schools and hospitals. The recipients may use the funds for any purpose they desire.

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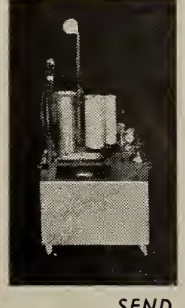

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IN MEMORIAM

RICHARD A. BRUEHL, M.D., forty-eight, former Detroit physician, died January 9, 1960, at Port Charlotte, Florida, where he had resided since 1958.

Doctor Bruehl was graduated from the University of Michigan Medical School in 1937 and had practiced for many years in the Fisher Building, Detroit.

EARLE J. BYERS, M.D., seventy-four, Grand Rapids, died December 23, 1959.

Doctor Byers was born in Belvidere, Illinois. He was graduated with high honors from the University of Illinois Medical School in 1909 and was a member of Alpha Omega medical fraternity. He interned two years each at Passavant and St. Mary's Hospitals, both in Chicago, before beginning his practice in Grand Rapids in 1913.

He was a member of York Lodge No. 410, F & AM, DeWitt Clinton Consistory and Saladin Temple Shrine, and a member of Grace Episcopal Church.

CHARLES W. CASTROP, M.D., fifty-two, Dearborn, died January 8, 1960.

Born in New York City, Doctor Castrop moved with his family to Detroit in 1922. He attended the University of Detroit and was a 1931 graduate of the Wayne State University College of Medicine.

Doctor Castrop practiced for twenty-nine years in the Dearborn Medical Center and was on the staffs of Providence and Oakwood Hospitals.

He was a member of the Bishop Foley Council of the Knights of Columbus and was active in retreat work at the Passionate Fathers Monastery, Detroit.

DANIEL R. DONOVAN, M.D., sixty-seven, Detroit, died January 26, 1960.

Doctor Donovan was born and grew up in Detroit's old Corktown, where his father, the late Doctor Daniel O. Donovan, was a practitioner.

He attended the old Detroit College of Medecine (now Wayne State University) and went overseas in World War I with the 302d Medical Corps. He was awarded the Bronze Star during the Meuse-Argonne drive. After returning he joined the Veterans Administration, first at Marine Hospital and then on East Jefferson. In 1923 he entered private practice.

Doctor Donovan was the state athletic commissioner for nearly ten years.

In addition to being senior staff physician at Providence Hospital, Detroit, he was a member of Lodge No. 34, B.P.O.E., the Beaudry Post of the American Legion and St. Theresa's church.

PAUL WALTER DUBOIS, M.D., sixty-two- Detroit, died December 27, 1959.

Born in Brainerd, Minnesota, he received his medical degree from the University of Michigan in 1924. He interned at Harper Hospital and joined the staff in 1928.

Doctor DuBois was a member of the American College of Surgeons and the Detroit Athletic Club.

(Continued on Page 510)

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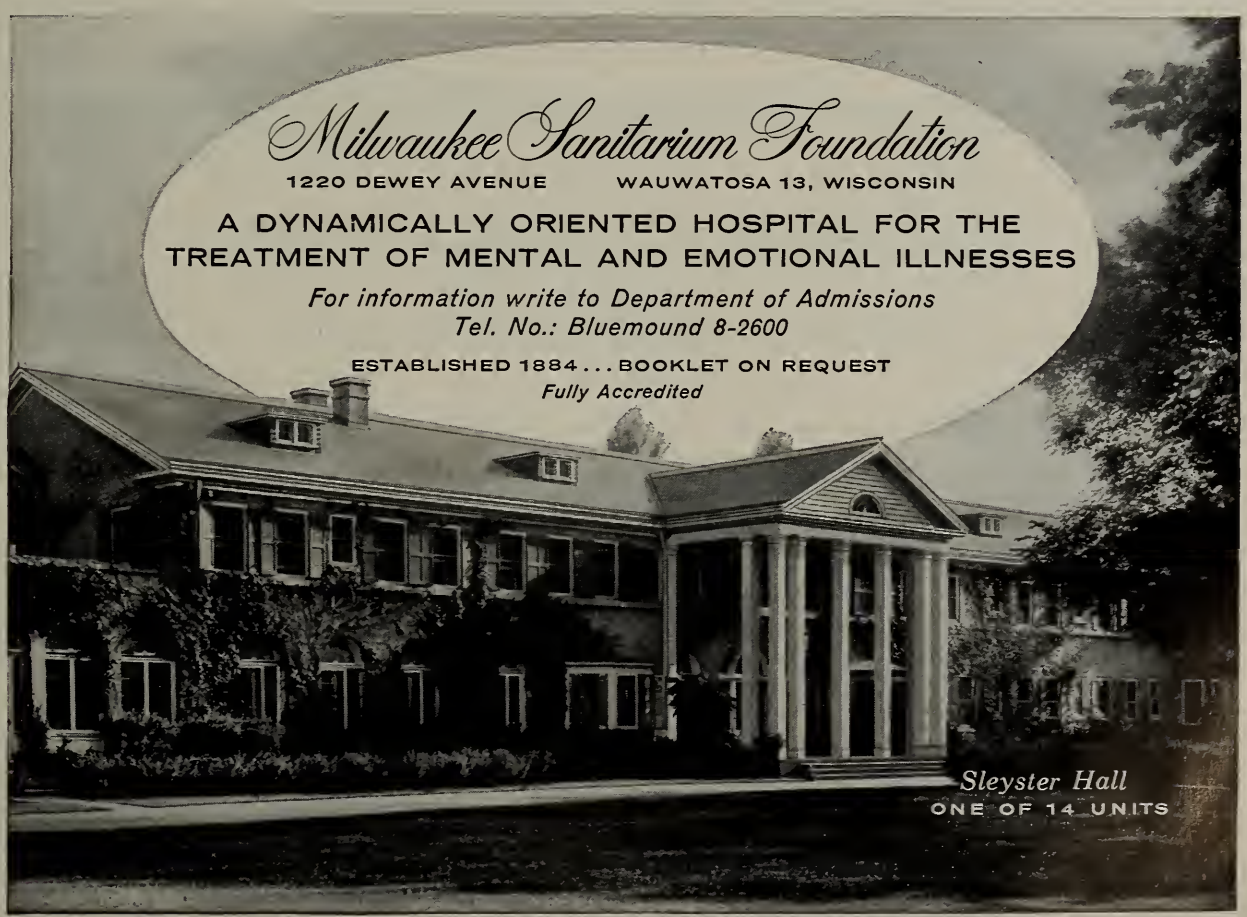

(Continued from Page 508)

EDWIN C. GANZHORN, M.D., sixty-eight, Ann Arbor, died January 17, 1960.

He was graduated from the University of Michigan Medical School in 1915 and practiced general medicine for forty-five years.

In 1920 Doctor Ganzhorn was elected coroner for Washtenaw County. He held this post for forty years.

WILLIAM GRAMLEY, M.D., seventy-two, Grosse Pointe, died January 7, 1960.

A native of Pennsylvania, Doctor Gramley was a graduate of the University of Michigan Medical School and did graduate work at Harvard Medical School. He practiced in the Wayne County area for over forty-five years.

He served as a Captain in the Medical Corps in World War I, was a member of the American Legion Post No. 126, Fine Arts Society and Oakland Hills Country Club.

JAMES A. J. HALL, M.D., seventy-nine, Detroit, died January 15, 1960.

A native of West Bloomfield, N. Y., Doctor Hall was a University of Michigan Medical School graduate. He practiced in Detroit for more than fifty years, and was a staff physician at Grace Hospital.

He was a member of Corinthian Lodge, No. 241, F & AM.

FORDUS V. HAND, M.D., fifty-three, Grosse Pointe Park, died December 23, 1959.

Born in Paulding, Ohio, he was a 1933 graduate of the University of Michigan Medical School and was on the staff of Deaconess Hospital. His offices were located in the Kirby Medical Center.

Doctor Hand was a lieutenant commander in the Navy during World War II; a member of Temple Lodge 501, F & AM; and the Moslem Temple.

SIMON E. LERMAN, M.D., forty-seven, Warren, died January 14, 1960.

A native of South Bend, Indiana, Doctor Lerman received his pre-medical training at Notre Dame University and his medical degree from the University of Michigan in 1939. He was the organizer of Memorial Clinic in Warren.

Doctor Lerman was a member of Yeshivath Beth Yehuda, Louis Marshall Lodge of B'nai B'rith; Knights of Pythias; and a philatelic club.

MARK F. OSTERLIN, M.D., fifty-six, Traverse City, died January 26, 1960.

Doctor Osterlin was born in Norwalk, Ohio. He received his A.B. degree in 1925 from Capital University and his medical degree at the University of Michigan in 1929, where he was instructor in pediatrics and communicable diseases. In addition to his teaching duties at Ann Arbor, he was director of the Central Michigan Children's Clinic in Traverse City.

He was a member of the Bethlehem Lutheran Church, Traverse City.

CHARLES H. PEABODY, M.D., eighty-three, former Lake Odessa practitioner for fifty years, died December 25, 1959.

A native of Mulliken, he was graduated from the Toledo

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Medical College in 1898 and started his practice in Mulliken.

Doctor Peabody retired from active practice in 1948 at which time he was presented a plaque on behalf of the village residents and an open house was held in his honor at the school building. Following his retirement he served his community in an advisory capacity before moving to Youngstown, Ohio, to be near his son, Doctor Cary Peabody. A brother, Doctor Guy Peabody, resides in Toledo, Ohio.

At the sixteenth annual Mulliken fair the theme of the parade was based on the life of this doctor. In a special ceremony he was presented a plaque by Governor Williams for his service to the community.

Doctor Peabody was a member of the Lions Club and the Masonic and I.O.O.F. Lodges.

COMMUNICATIONS

MSMS Journal Editor:

Do you have reprints of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY—May, 1957, Vol. 56, No. 5?

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Wayne State University, Department Occupational Therapy, 261 Brady, Detroit 1, Michigan

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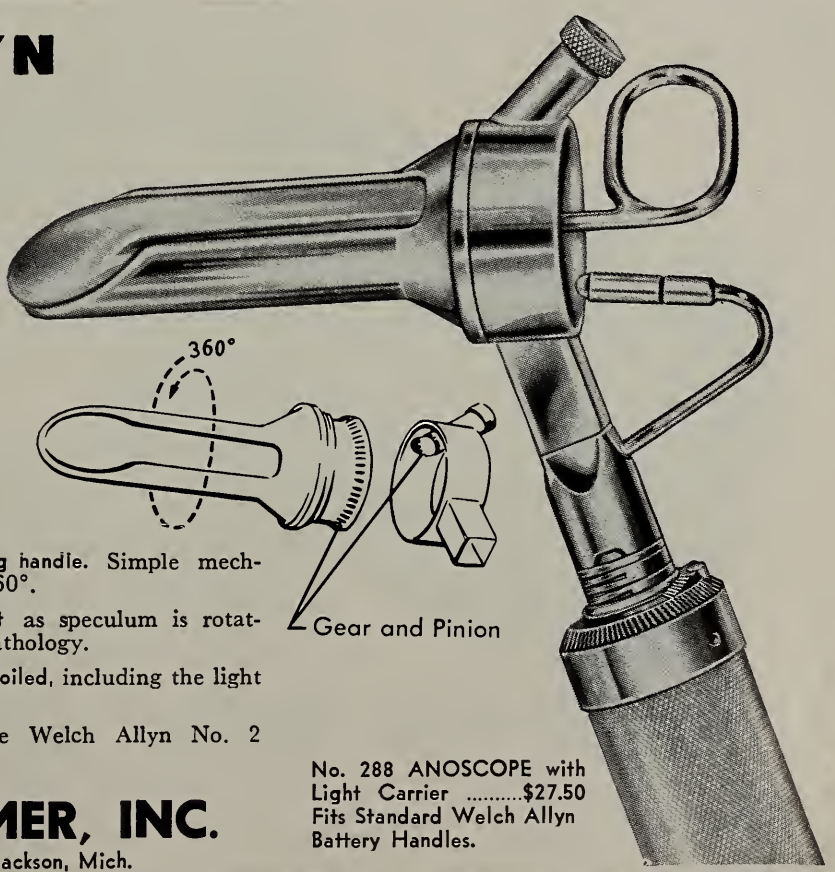

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Michigan Authors

Martin J. Urist, M.D., South Haven, "Primary and Secondary Deviation in Concomitant Squint," *American Journal of Ophthalmology,* November, 1959.

J. S. DeTar, M.D., Milan, **W. B. Hildebrand, M.D.,** Menasha, Wisconsin, "The Relationship Between the General Practitioner and the Specialist," *Minnesota Medicine,* November, 1959.

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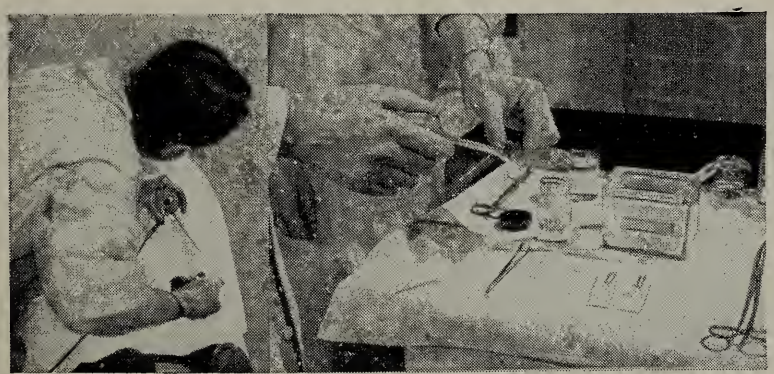

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The American Cancer Society, in its broad public education program, emphasizes the importance of an annual health examination for all adults. It also brings to physicians information on the value of regular examination of the breasts, the routine "Pap" smear, and the proctoscopic examination, to save lives from cancer.

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EDITORIAL COMMENT

Medical Care vs. Doctor Care

New York State Journal of Medicine,
February 15, 1960

As discussion of legislation in relation to care of the sick commences in the first year of the new decade it is probable that the publicity relating to it will repeat the errors of former years.

We refer to the indiscriminate use of the terms "medical care" or "medical services" when those services rendered by doctors only are referred to. Why is this important? It is important because people are prone to forget that no one but a physician can give them "doctor care."

On the other hand, "medical care" is a broad term. It includes the services of hospitals, nurses, medicines, dentists, and paramedical technicians, to name but a few.

So when the political orators begin again to bring up the costs of "medical care," let those costs be broken down in such a way that the public knows what "doctor care" as opposed to "medical care" in general is costing them.

If this is done, it may surprise many to know that out of what is called "the medical dollar" the physician receives somewhat less than twenty-five cents. During the past ten years doctors' fees have not increased in proportion to the other items included in the cost of living index.

Doctor vs. Quack

Detroit News, December 18, 1959

The question has arisen of late as to whether the sale of fake cures for all sorts of maladies, from cancer to baldness, does not constitute the criminal offense of obtaining money under false pretenses.

We are not speaking here of poisons in foods, possibly harmful additives, adulteration of products, fake nutritional claims or any of the other practices or conditions outlined by our J. F. Ter Horst in Sunday's Passing Show section of The News. The reference is to the $12 million a year fraud practiced on arthritis

(Continued on Page 516)

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Doctor vs. Quack

(Continued from Page 514)

sufferers—and the whole field of allied quack medicine promotions—as related by Merle Oliver in The News.

One of the "miracle cures" for arthritis, for example, is a liquid with a tequila base, sold apparently on the theory anything tasting as bad as it does must have curative properties. Tinted alcohol flavored with cactus juice is another favorite.

The persons paying extravagant prices for these products are being defrauded just as surely as are widows robbed of their life savings by the "pigeon drop" racket. But the con man is likely to wind up in jail. The quack medicine swindler is not.

The reason is that no matter how preposterous the medical claims for a product may be, there always are persons who will testify they have been benefited. They forget that any pill may be of temporary psychological help, or that in many maladies the pain comes and goes even without medicines. Their testimony makes convictions almost impossible to obtain.

There is, however, one sure way to put the quacks out of business. It is to consult one's doctor, local medical society or Better Business Bureau. And it is a procedure which, perhaps, the doctors and medical societies should do more to encourage.

Medical Care Dollar Is Still a Good Investment

Clinton County Republican News, October 30, 1959

Attacks by some prominent doctors on the Blue Cross M-75 care plan at the recent meeting of the Michigan State Medical Society in Grand Rapids focus attention on the economics of medical care.

All of us gripe about the rising costs of hospital care and doctors' bills. It frequently happens they hit us "when we are down," and seem worse than other rising costs of living. We can't afford to be sick, nor can we very well afford at times the preventive examinations and medicines.

BUT FOR THOSE who will heed, there is a silver lining. We live longer, stay well longer and get really sick less often than in days of yore.

There is better sanitation, and general working conditions have improved that were a danger to health, and much sickness is prevented rather than endured. More sick people get well, and get well quicker than in the "good old days."

It is said modern medicine, surgery and drugs have added seven years to the average life span since 1940. They have reduced the average length of hospitalization by more than 16 days in the past 20 years, and made rapid cures possible in thousands of cases without going to a hospital.

THERE SEEMS to be a more or less wide-spread feeling that medical care costs have out-run general price increases. But for the sake of fair comparisons, in the 20 year 1938-58 period the consumer price index rose 104.8 per cent. Medical care costs rose 99.2 per cent. And physicians' fees rose 83.9 per cent.

These figures were presented by E. F. Hutton in writing recently in the *Houston Chronicle* on the economics of medical care.

Statistics aside, how much are seven more years of life worth? How much is health worth? How much is speedy and complete recovery from illness worth? Such questions are impossible to answer in terms of money. The medical care dollar still seems to be a good investment.

Point to Examine In Aiding Oldsters

Detroit Free Press, December 23, 1959

A 1960 legislative program in the field of public assistance has been outlined by Arthur S. Flemming, Secretary of Health, Education and Welfare.

After pointing out that 53 per cent of public assistance money is now channeled through the Federal Government, Flemming said he would ask Congress for a "positive plan" for medical care for recipients of old age and survivors' benefits.

He also said he would propose a Federal program for independent self-care for the infirm and severely

handicapped, and called for research on social problems that make persons dependent on public welfare.

Although Flemming said his program would aim at cutting costs, he made several suggestions that would increase expenditures on programs that already are often criticized as responsible for encouraging a completely non-productive kind of citizen.

Among these, for instance, was a proposal to grant aid to dependent children on the basis of need only, regardless of whether a father or what Flemming called a "father figure" is in the home.

Most States cut off ADC funds if an employable man is living in a household. If Flemming's recommendation becomes law, there will be further dilution of individual responsibility for the support of children.

Flemming's promise of a "positive plan" to provide medical assistance for the aged is, of course, in answer to the Forand Bill, which he opposed and which failed to get Congressional approval during the last session.

The bill would have provided medical care, backed by a payroll tax, for those receiving old-age benefits.

Whatever needs to be done to ease the burden of those older persons who cannot afford medical care, much consideration should be given the assistance form in order that the widely-known abuses of other public assistance programs would be, as far as is possible, excluded.

Perhaps Flemming's proposed research on what makes people dependent on public assistance will reveal whether the Government's rules and regulations, themselves, contribute to the often personally-unwanted dependence of ever-increasing numbers of people.

"Federal taxes in Michigan for fiscal 1959 were slightly over $5 billion or about $1.2 billion less than the preceding year. The total amount of federal taxes collected for all the states in fiscal 1959 amounted to almost $79.8 billion which makes Michigan's contribution 6.28 per cent of the total. In fiscal 1958, Michigan's share was 7.75 per cent of an $80 billion total. This is the third consecutive fiscal year that total federal taxes for Michigan have shown a decrease from the all time high of $7 billion in fiscal 1956."—Michigan Department of Revenue, *Research and Statistical Bulletin*, Vol. XXII, No. 3.

* * *

Since 1901, when the Nobel prizes in medicine were first granted, America's medical men have captured twenty-seven out of the seventy-six medals that have been awarded. Most recent recipients are Dr. Severo Ochoa of New York University's College of Medicine and Dr. Arthur Kornberg of Stanford University—again Americans. They were honored for their work in synthesizing ribonucleic acid and desoxyribonucleic acid.

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the Journal
MICHIGAN
STATE MEDICAL SOCIETY

Volume 59 Number 4

April, 1960

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THE COVER

The Cover forcefully stresses the importance of complete physical examinations in the early detection of cancer. Artist Dirk Gringhuis' illustration shows how the combination of physical examination and laboratory research helps early diagnosis in carcinoma-prone areas.

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1. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:380, July, 1959. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:384, July, 1959.

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President's Page

WOMAN'S AUXILIARY TO MSMS

Milton A. Darling

President

Michigan State Medical Society

The Michigan State Medical Society takes genuine pride in recognizing its indebtedness to the Woman's Auxiliary and the many fruitful years of its existence.

The brainchild of Dr. Caroline Bartlett Crane and Mrs. Guy Kiefer, the Auxiliary was organized in June 1927, at Mackinac Island, by Dr. Herbert E. Randall of Flint. It has expanded from 28 charter members to a total of 3,160, with 48 organized county societies and with members-at-large from each unorganized county.

Following its primary objective to serve the Medical Society, it achieved success in the American Medical Association's first assignment, that of promoting Hygeia, now called Today's Health.

Another AMA request was the adoption of a policy to inform the laity on current medical legislation. Concerted opposition to socialized medicine and support of Blue Cross-Blue Shield have been of paramount interest in many lay discussions. Today, defeat of the Forand Bill is receiving attention through distribution of AMA circulars, et cetera.

Countless hours of service have been given by Auxiliary members to such community projects as Cancer Control, Mental Health, Red Cross, Hospital Auxiliaries, Rural Health and even the registration of voters. A Tuberculosis Speaking Contest has been successful in many Michigan high schools. Aid to Veterans' Hospitals and Schools for the Handicapped have received attention.

Further assistance has been given the Medical Societies in polio vaccination programs, blood banks, tuberculosis surveys, as well as in manning medical society exhibits at state and county fairs.

Future Nurses Clubs in high schools, frequently with financial assistance, have been developed to combat the shortage of nurses and paramedical personnel.

In fact, in 1958-1959 alone, the Auxiliary gave more than $5,500 to the American Medical Education Fund, and $4,000 to furnish a lounge in the new MSMS building in East Lansing.

For such outstanding service, the Medical Society is deeply grateful, and with such loyal assistance, hopes for the future of the Woman's Auxiliary are most promising.

Reveal New State Society "Presidential Program"

At the County Secretaries-Public Relations Seminar, President Darling announced a new five-year MSMS program of health leadership. Watch future numbers of THE JOURNAL *for periodic progress reports. Here is a review of his remarks delivered on January 31, 1960, in Detroit.*

PIONEERS OF PROGRESS

By Milton A. Darling, M.D., President
Michigan State Medical Society

MEDICINE's target, and the reason for existence of the Michigan State Medical Society, has been, is now, and always will be the the advancement of the science of medicine and the application of this knowledge in the form of better health for more people. We are constantly pushing toward our horizons of knowledge as we progress in applying the know-how we obtain from research and from daily practice.

Some of our publics have charged that organized medicine is reactionary and resistant to change. But as the politicians say, let's look at the record—the record of the Michigan State Medical Society.

Progress Reviewed

In medical education, the MSMS has urged successfully, and still urges, the expansion of medical school facilities and faculties, toward the end of meeting current and future demands for doctors of medicine.

In a continuing program, the MSMS has campaigned hard to encourage young people to choose careers as a medical associate and is now striving to increase the number of qualified students who will enter the study of medicine.

By encouraging the formation of the Medical Foundation for Medical and Health Education, a revolving fund was established for the education of medical students.

To help doctors of tomorrow, the MSMS established the Annual Conference for Residents, Interns and Senior Medical Students.

Again, MSMS originated and continued as a major support of the Michigan Health Council and directed, through this organization the outstanding M.D. Placement Service in the nation, thereby encouraging doctors to go to communities where they are most needed.

In postgraduate education, the MSMS Annual Session and the Michigan Clinical Institute are considered models of organization and clinical content. In cooperation with the state's medical schools, it has produced a year-round Postgraduate Medical Education Program that has excited the envy of other states.

Scientific Journalism Praised

In scientific journalism, the JOURNAL OF MSMS has been named the outstanding publication of all 50 state medical societies, for the year 1959.

MSMS also assisted in establishing the Michigan Heart Association and the Michigan Association for Epilepsy (now the Michigan Epilepsy Center and Association) and coordinated the policies of six Michigan organizations interested in fighting cancer through the Michigan Cancer Control Committee.

MSMS originated and administered a statewide Rheumatic Fever Control Program and established 32 Diagnostic Centers.

It pioneered the Michigan Rural Health Conference, recognized as the finest of its kind in the nation.

In a constant effort to assure the best health care for Michigan people, the MSMS has acted to see to it that all practitioners of the healing arts are permitted to practice only within their respective areas of competency. This has been done through the constant vigilance of our Legislative Committee.

Although there are those who might argue specific details, I believe Michigan medicine is generally proud of having nurtured voluntary prepayment medical care plans in opposition to compulsory government schemes by the sponsorship of Michigan Medical Service and support of Michigan Hospital Service.

As the symbolic horse and buggy doctor was replaced by our modern practitioner with well-equipped offices and hospitals, and the practice of medicine became as complex as its science, the MSMS has with some success urged its members to increase their involvement in community and civic affairs. By so doing, the doctor has increased his stature on a far broader level and he himself has become more aware of economic and social needs and dangers which demand the concern of all intelligent citizens.

Promote Public Understanding

Within the last 20 years, MSMS members realized that their influence could be multiplied manyfold if public understanding could be obtained. The MSMS Public Relations Department was created in 1946. This was the first full-time activity of any state or national medical society. Since then, the Medical Society has worked toward the penetration of the curtain of public misunderstanding and has won many friends who share our concern for the future of medical care.

Through the presentation of awards, the MSMS honors the Foremost Family Physician of the Year and Michigan doctors who serve as presidents of national medical organizations. Thus the achievements of individuals are made known to the public.

Similarly, the profession honors laymen for outstanding service in the health field, medical reporting and for cooperation with MSMS in health education.

The MSMS Public Relations program has been recognized nationally time and again.

I have taken your time to review these accomplishments because their recitation dramatically reveals the role of the medical profession in Michigan as a Pioneer of Progress. It shows that we have had the energy and the fortitude in the past to make new pathways leading to the elusive goal of better health for the public and better understanding of the doctor's role in creating better health.

I don't think we have lost that spirit and we have the same quality of leadership and staff support that has made these accomplishments possible in the past. That is why today as your President, supported by the favorable decision of The Council and with the enthusiastic approval of your President-Elect, I am presenting a new program for your consideration and your help in administration.

Presidential Program Explained

This program is an "all out" professional effort to be formally inaugurated upon approval of the House of Delegates in September 1960 and the opening of the new MSMS Headquarters Building. It is a five-year program designed to culminate in September 1965 with the celebration of the 100th Anniversary of the MSMS.

It will be called the Presidential Program because we hope to obtain the endorsement and support of it by the President of every organization, association,

MICHIGAN MEDICAL MEETINGS AND CLINIC DAYS

April 7	Ingham County Medical Society Spring Clinic	Lansing
April 13	Genesee County Cancer Day	Flint
May 4	Wayne State University Clinic Day and Alumni Reunion	Detroit
June 17-18	Upper Peninsula Medical Society	Escanaba
July 28-29	Coller-Penberthy Clinic	Traverse City

and corporation in Michigan which has any interest or relationship to health and health problems and foremost among these, of course, are the Presidents of the County Medical Societies.

Through this program we hope to integrate the existing health forces already meeting medical standards, and of studying, screening and ultimately furthering and supporting potentially sound health developments which are now in need of expert medical review and appraisal.

As Dr. John M. Dorsey has phrased it:

"Every physician needs the kind of organized medical work which cultivate his proper sense of professional esteem . . . the mobilization of health interests under the authority and responsibility of our MSMS leadership will not only reveal the inefficacy of scattered medical strength but will build up the kind of medical morale which every physician can cherish as his own individual ideal."

The goal of this campaign is to make a 100th birthday present to the people of Michigan of five more good years of life as reflected in the general life expectancy statistics kept by the State Health Department.

Not A Geriatrics Program

Lest there be any misunderstanding—this is *not* a geriatrics program. Far more gain, toward increasing the good years of our life and the extent of life itself, is made by keeping alive and healthy the youth of our state than by increasing the longevity of the 80-year old. Statistically speaking, to keep a child of five alive and healthy, who would otherwise sicken or die, is twelve times as effective in increasing the general life expectancy of Michigan citizens than would be the adding of 5 more years to the life of a man aged 65.

Consequently, the main emphasis of our program to add a total of five years to the general life expectancy of our people must be upon the people whom you and I know serve with particular emphasis upon youth.

Dr. Bromme Appointed

William Bromme, M.D., Detroit, MSMS Councilor, 18th District, has been appointed, on a stand-by basis, as a member of the Michigan Advisory Committee to Selective Service. Doctor Bromme fills the vacancy on the committee caused by the death of Grover C. Penberthy, M.D., Detroit, who had been the Committee chairman.

The appointment was made by Elmer Hess, M.D., chairman of the National Advisory Committee to the Selective Service System, Washington, D. C.

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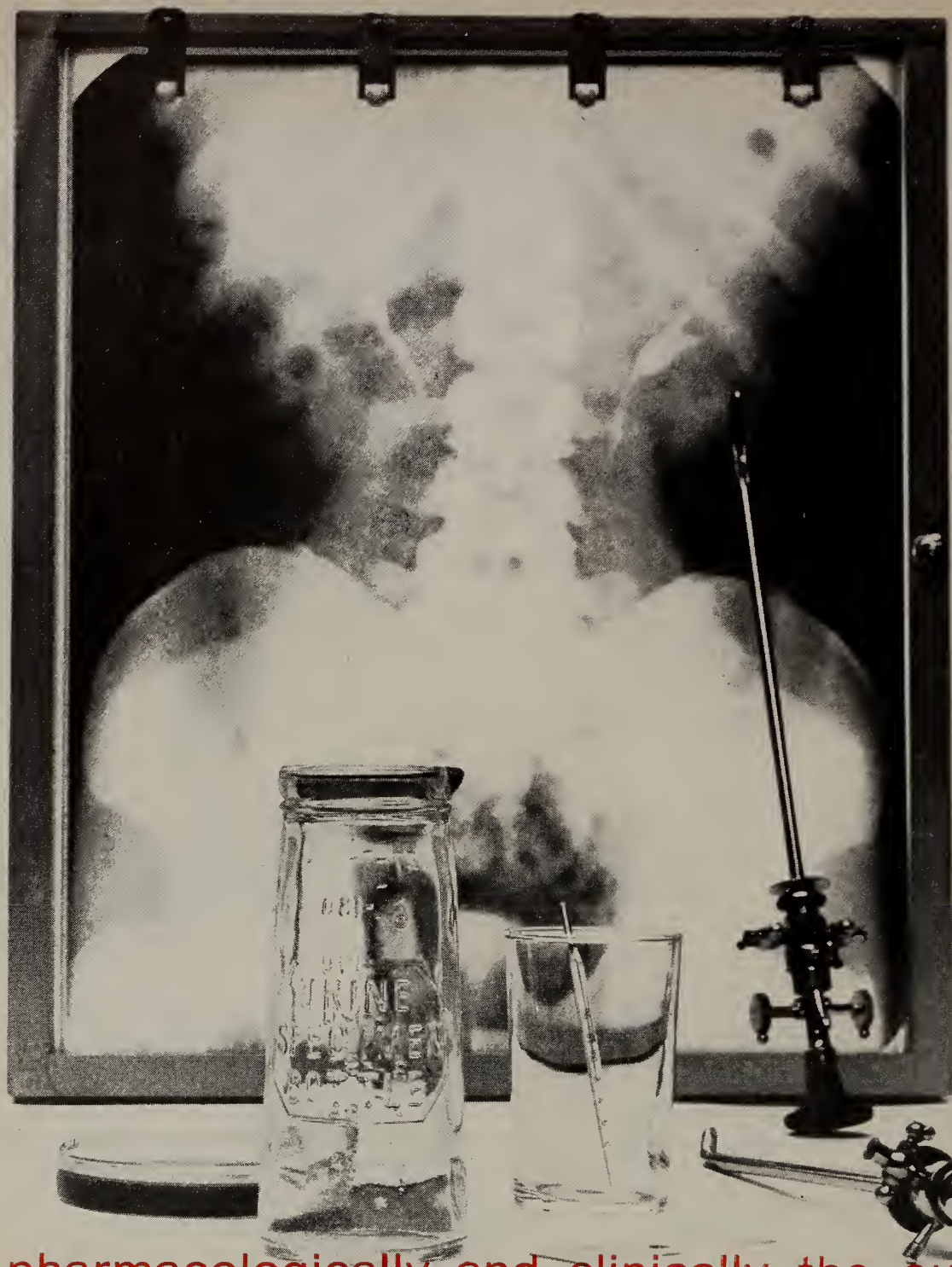

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1. Boger, W. P.; Strickland, C. S., and Gylfe, J. M.: Antibiotic Med. & Clin. Ther. 3:378, (Nov.) 1956. 2. Boger, W. P.: Antibiotics Annual 1958-1959, New York, Medical Encyclopedia, Inc., 1959, p. 48. 3. Sheth, U. K.; Kulkarni, B. S., and Kamath, P. G.: Antibiotic Med. & Clin. Ther. 5:604 (Oct.) 1958. 4. Vinnicombe, J.: Ibid. 5:474 (July) 1958. 5. Anderson, P. C., and Wissinger, H. A.: U. S. Armed Forces M. J. 10:1051 (Sept.) 1959. 6. Roepke, R. R.; Maren, T. H., and Mayer, E.: Ann. New York Acad. Sc. 60:457 (Oct.) 1957.

Closed-Radio Broadcasts To Aid Medical Education

A new radio series will be started this autumn by the Radio Corporation of America for doctors only. Known as the Medical Radio System, it will provide special medical programs for physicians thirteen hours daily, six days each week. The medical network will cover 16 cities initially.

The programs will consist of concise reports on the latest research in many fields of medicine, broadcast at regular intervals and repeated three or more times daily so that the doctor who is not able to hear the original broadcast can receive the program at his convenience.

When the professional programs are not being aired, the system will provide selected music for the physician's waiting room.

TRANSMISSION OF PROGRAMS will be made over an FM multiplex subcarrier channel to specially built receivers in the physician's office. Only these special receivers will be able to pick up the broadcasts which will not interfere with regular local FM radio reception. A typical installation also will include a speaker for the physician's desk and one for his waiting room. When medical news and information are being transmitted, the waiting room speaker is automatically disconnected and a signal light on the physician's office speaker goes on to signify a medical program is beginning.

All programs will be prepared by recognized medical authorities.

Offer Film of AMA Meeting

Scientific highlights of the Dallas Clinical Meeting of the American Medical Association can be brought to life on the movie screen at meetings of county societies and hospital staffs.

The film's selected lectures, exhibits and discussions make an absorbing 25-minute presentation.

A copy may be reserved for a specific date by writing Film Library, AMA, 535 North Dearborn Street, Chicago 10, Illinois. No charge except return postage.

Genesee Aids Health Forums

For the first time in Flint, a Health Forum lecture series was cosponsored for area residents by the Genesee County Medical Society and other health agencies.

The series of lectures was entitled, "Inside Line to a Long Life." The seventh program concluded the series on March 15.

National, state and local authorities appeared as speakers and

panelists on topics including cancer, heart ailments, diabetes, alcoholism, tuberculosis, adolescent health problems and mental health.

Physician members of the Forum planning committee were Doctors Robert E. Anderson, Frederick W. Bald, Franklin W. Baske, Donald R. Bryant, and Clifford W. Colwell.

Exhibit at Ingham Home Show

March and April were busy months for Ingham doctors of medicine who participated in the Lansing Homorama Show and the 1960 Youth Talent Exhibition and Science Fair.

In March, the county medical society sponsored a 20-foot display of modern office equipment at the Homorama Show. Demonstrations of latest items of equipment were given by M.D.'s and medical assistants. No testing procedures were offered to the visiting public.

The Woman's Auxiliary helped the doctors staff the display booth and escort the visitors through the exhibit. Co-chairmen in charge of arrangements were T. D. Loughrin, M.D., and Hugo Saenz, M.D.

Expanding its participation in the 1960 Central Michigan Science Fair, the Ingham County Medical Society offered citations and savings bonds to winners of the various competitions. Edwin C. Sundell, M.D., youth activities subcommittee chairman, reports that the Society gave two $25 savings bonds to winners in the junior division and contributed two $25 bonds to top exhibitors in the field of medicine.

Both activities are under the general direction of the Public Relations Committee, D. Bonta Hiscoe, M.D., and James Neering, M.D., Co-Chairmen.

PAMPHLET OF THE MONTH

County medical society indoctrination committees may wish to obtain copies of the pamphlet "Science and Service to Humanity," outlining briefly the service and function of the American Medical Association. Quantities of this pamphlet for distribution to new members may be obtained by writing PR Library, MSMS, Box 539, Lansing 3. Also available from the Library are indoctrination kits for new members, prepared by MSMS.

"First Contact" New PR Library Film

Newest film in the MSMS Public Relations Library is "First Contact: The Medical Assistant."

This 16 mm. sound and color motion picture was produced by the American Association of Medical Assistants in co-operation with the American Medical Association. It points out the many differences between a good medical assistant and a "poor substitute," and shows how the AAMA helps its members to become more valuable allies as the doctors' public relations ambassadors. Running time: 26 minutes.

To obtain this film for showing to your county medical society, medical assistants society, or other interested groups, write MSMS Public Relations Library, Box 539, Lansing 3.

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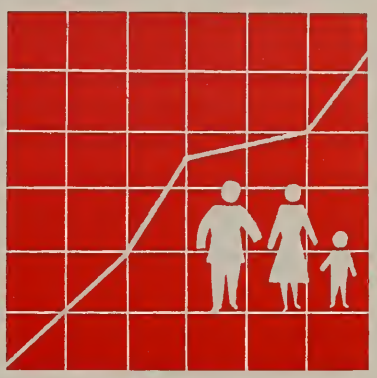
New AMA Commission to Study Costs of Medical Care

"We would like to find where medical care economies may be achieved in the best interests of the patient."

That statement was made by Louis M. Orr, M.D., president of AMA, when he recently explained the establishment of the new AMA Commission on the Costs of Medical Care.

The AMA appropriated an initial grant of $100,000 for the broad Commission assignment to delve into every phase of medicine where costs or spending are involved.



DOCTOR ORR STRESSED that "This study-project is being launched because the American public is spending increasing amounts of money for all types of medical care. These expenditures involve the peoples' lives, health, and pocketbooks. The Commission will analyze the cost picture from every angle and try to come up with some sound advice and suggestions."

The Commission will study all medical care costs, including doctors' fees, hospital charges, nursing cost, drug expenditures, and health insurance premiums.

Doctor Orr said that American medicine is "tackling the cost problem in order to help people better meet their obligations when illness strikes, and to help clarify the confusion that exists relative to such cost."

THE AMERICAN MEDICAL ASSOCIATION, Dr. Orr said, is "well aware that more physician-patient relationships have been strained by a misunderstanding about fees than perhaps any other disagreement. Is such misunderstanding due to lack of frank discussion between doctor and patient, or is there some other reason? A patient has every right to know why he needs treatment or surgery, what it will consist of, and what it will cost—particularly where major services are rendered."

The AMA Commission will consult economists, health insurers, prepayment plans, hospital representatives, a cross section of patients, and others whose knowledge and opinions will be helpful.

Suggests Role of Profession In Reducing Hospital Costs

(This article is excerpted from the report of the Committee on Medical Economics of the Medical Society of the County of New York as adopted at a recent Society business meeting.)

"The medical profession and the medical societies are well aware of their responsibilities in keeping costs of hospitalization and premiums for hospitalization insurance to a minimum. It is obviously a job that they cannot do alone but they do not stand ready to cooperate actively with the other groups concerned and indeed to take the lead in getting the program under way.

"Both from without and within the profession it has been stressed that medicine should accept leadership in these matters.

"It should be obvious that there is nothing to be gained by blaming any one group for the ever increasing cost of hospitalization insurance. A concerted detailed and continuing effort is needed if voluntary hospital insurance of this type is to survive and not be replaced by government subsidy.

These recommendations are made:

"1. County and state medical societies should use all their channels of communications to the profession to bring home to physicians their stake in and their role in preserving voluntary hospitalization insurance. In addition to the inevitable moralizing, there should be concrete suggestions made to physicians on the basis of definite criteria to be discussed below. It is suggested the public relations committee of each county medical society should handle this campaign unless there is an established committee for professional relations or professional education.

"2. County and state medical societies through their public relations committees should cooperate with hospital plan carriers in an intensive publicity campaign along the lines indicated above. The campaign to the public should emphasize a subject usually avoided by the carriers; that there are restrictions on the insurance they sell and that these restrictions will be enforced.

"3. Joint committees should be established, at whatever level is best suited to the community, to consist of representatives of the medical society, hospitalization and health insurance carriers and both voluntary and proprietary hospitals through their respective organizations. These committees should meet regularly to explore the following questions.

"(a) The establishment of Admission, Discharge and Conduct Committees at hospitals. Their composition, aims and specific function.

"(b) Evaluation of hospital facilities and organization with the object of the eventual recognition of different grades of care with different rates of payment to the hospital.

"(c) Evaluation of laboratory and other "ancillary" facilities in hospital, so that patients need not be kept in longer than necessary while waiting for laboratory, x-ray or physio-therapeutic services.

"(d) Investigation of the possibility of rendering certain services on an out-patient rather than an in-hospital basis. This applies particularly to the field of minor surgery.

"(e) Elaborate criteria applying to proper utilization so that individual physicians and hospital committees may have a yardstick for comparison.

"4. It would be well for the medical societies and the insurance carriers to consider whether or not the time-honored exclusion of diagnostic services might not be re-evaluated in the light of savings effected by tighter operations.

* * *

MSMS prides itself that no member has ever been refused his "day in court"—an opportunity to be heard, regardless of the subject.

Public Spends Twice as Much For Fun, Alcohol, Tobacco As for Medical Care

Americans are spending twice as much money for recreation, alcoholic beverages and tobacco as they are for medical care. Two of every $18 the public spends for its personal needs goes for recreation, alcohol or tobacco compared to an expenditure for medical care of one of $18.

These statements are based on 1958 figures released by the U. S. Department of Commerce.

Americans spent $293 billion on their personal needs, the Department reports. Seventeen billion dollars of this sum (or 5.8 per cent) was spent for recreation while $9.2 billion (3.1 per cent) went for alcohol and $6.3 billion (2.1 per cent) was used to purchase tobacco products, for a total of $32.5 billion, or 11 per cent of total personal consumption expenditures.

In comparison to the $32.5 billion, $16.4 billion (5.6 per cent) was spent on medical care. Other public expenditures in 1958 included $67 billion for food, $38 billion for housing, nearly $34 billion for transportation, $32 billion for clothing, accessories and jewelry, almost $4 billion for religious and welfare activities, and $3.4 billion for education and research.

The distribution of each dollar spent for medical care changed sharply in the period from 1938 to 1958.

In 1958, physicians and dentists received a smaller share of the medical care dollar than they did in 1938, while hospitals, medicines and appliances received a larger share.

From each dollar of the $2.7 billion spent for medical care in 1938, physicians received 30 cents, but by 1958 doctors were getting only 26 cents.

An even sharper drop was experienced by dentists, whose share of 15 cents was reduced to 10 cents.

The slack was taken up by hospitals, medicines and appliances. Twenty-two cents out of every medical care dollar spent in 1938 was for hospital services; but by 1958, this slice of the dollar was up to 31 cents. Hospitals attribute this rise to the expansion of hospital services and greater utilization which has increased the number and variety of skilled personnel required.

NY Blue Cross to Cover Costs of Home Care

A new "home care" program, which provides continuation of hospital services to the subscriber in his home—at no additional cost—is being put into opera-

(Continued on Page 566)

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greater flexibility in the control of tension, hypermotility and excessive secretion in gastrointestinal dysfunctions

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The clinical advantages of PATHIBAMATE have been confirmed by nearly two years' experience in the treatment of duodenal ulcer; gastric ulcer; intestinal colic; spastic and irritable colon; ileitis; esophageal spasm; anxiety neurosis with gastrointestinal symptoms and gastric hypermotility.

Two dosage strengths—PATHIBAMATE-400 and PATHIBAMATE-200 facilitate individualization of treatment in respect to both the degree of tension and associated G.I. sequelae, as well as the response of different patients to the component drugs.

Supplied: **PATHIBAMATE-400**—Each tablet (yellow, 1/2-scored) contains meprobamate, 400 mg.; PATHILON tridihexethyl chloride, 25 mg.
PATHIBAMATE-200—Each tablet (yellow, coated) contains meprobamate, 200 mg.; PATHILON tridihexethyl chloride, 25 mg.

Administration and Dosage: **PATHIBAMATE-400**—1 tablet three times a day at mealtime and 2 tablets at bedtime.
PATHIBAMATE-200—1 or 2 tablets three times a day at mealtime and 2 tablets at bedtime.
Adjust to patient response.

Contraindications: glaucoma; pyloric obstruction, and obstruction of the urinary bladder neck.

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Say you saw it in the Journal of the Michigan State Medical Society

NY Blue Cross

(Continued from Page 562)

tion by Associated Hospital Service of New York (Blue Cross).

The plan is expected to start this spring in three or four hospitals and will be gradually extended to others. Exemplifying national interest in the program was Michigan Blue Cross's announcement that it had started a study based on the new concept.

Basically, the New York program offers an extension of hospital services into the home for any medical or surgical patient in the post-acute stage, without restriction as to age, nature or duration of illness, or type of hospital accommodation occupied. The private physician will decide when to utilize the service, according to criteria set by each hospital's home-care council and Blue Cross.

Home care will be provided by existing visiting nurse agencies. When feasible, the services of physical therapists and social workers will be made available. Hospital services will include laboratory tests, drugs, dressings, ambulance service, and x-rays.

Offer Hospital Credit Cards

The board of trustees of the Pontiac General Hospital voted in January to establish a credit-card plan for hospital costs. Surgeon's fees will not be included; but hospital costs will include x-rays and lab work.

Harold B. Euler, hospital administrator, has explained that the credit cards will entitle holders to receive treatment and occupy hospital beds on a service-now-pay-later basis. Credit-card applications will be checked by the Pontiac Credit Bureau.

The plan, he explained, will especially help the 10 per cent of the hospital patients who are not covered by hospitalization insurance.

The Pontiac plan, according to Mr. Euler, is the first hospital credit plan in Michigan, although more popular in St. Louis and New Jersey.

AMEF Contributions Up

During 1959, there was a marked increase in funds contributed by physicians to medical education through the American Medical Education Foundation.

The Foundation closed the 1959 books on January 31, 1960, with a total of $1,195,824, an increase of $75,780 over the 1958 total which included a gift from the American Medical Association of $100,000. The total increase in contributed money, therefore, is $175,780 or a 17.2 per cent increase over the contributed amount of the preceding year, not including the AMA grant. The two-year increase in the actual amount of contributions, discounting AMA grants, is an extraordinary 36.7 per cent.

Estimate Annual Loss Of Income Due to Illness

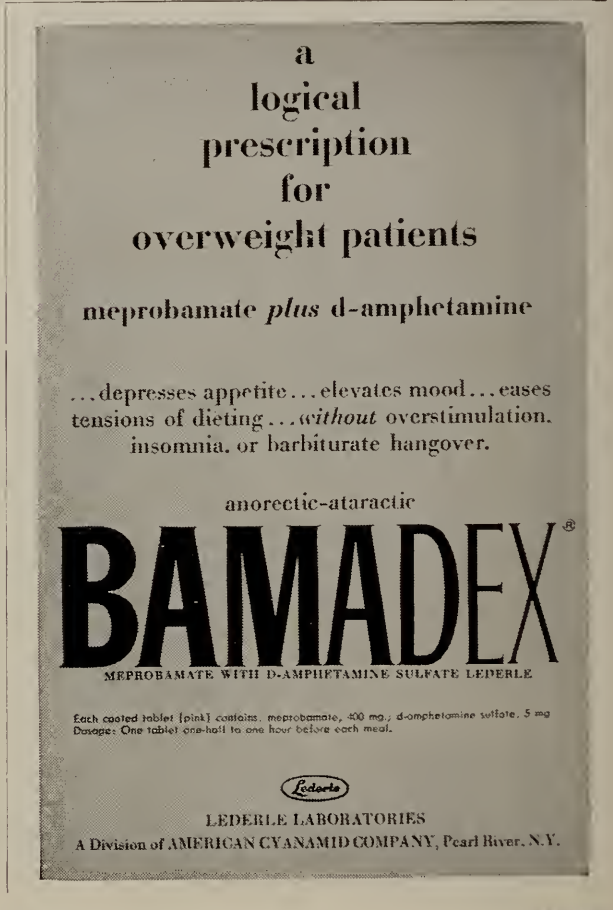
More than 500,000,000 days of work are lost each year as a result of illness. And the annual wage loss due to illness is estimated at $4,200,000,000.

This report is made by the publication, "Patterns of Disease," January number.

An estimated 10 per cent of this loss, or $420,000,000 yearly, may be due to illnesses of occupational origin.

Every year about 200 disease entities are added to recognized occupational diseases, presently numbering about 3,000. Most new disease entities are caused by new chemical compounds introduced by industry at the rate of one every 24 minutes. Of these, a significant number possess properties potentially harmful to workmen.

The AMA Council on Industrial Health defines occupational health as essentially preventive medicine —health protection and promotion—in the working environment. Its objectives are twofold: (1) detection, evaluation, and correction of hazards to health imposed by environment and materials of work, and (2) medical examination of employes to effect suitable job placement and to discover health impairments caused by work surroundings. Ideally, health education and counseling are included.



Malignancy in the Pediatric Patient

Clifford D. Benson, M.D.
James R. Lloyd, M.D.

Detroit, Michigan

VARIOUS REPORTS throughout the nation,[6-9] as well as public health statistics, show malignancy second only to accidents as the leading cause of mortality in childhood. While it is true that our ability to diagnose malignant lesions has improved in recent years, it is also very likely that cancer is becoming more common in the younger age groups.[1] Unfortunately, a high mortality attends many of the neoplasms encountered in the infant and child, but at the same time there are some forms of malignant diseases that respond very well to therapy if recognized early and treated without undue delay.

Although cancer can and does appear at any age, there are some significant differences between neoplastic processes in adults as compared to the child. While carcinomas comprise ninety per cent of cancer in the adult, the majority of malignant neoplasms in the child tend to arise from mesodermal elements. Bill[3] reviewed a series of childhood malignancies and found that carcinoma made up only 4 per cent of the total. Sarcomatous tumors are the predominate forms of malignancy in the prepubertal age group. This fact accounts for some of the differences in behavior of malignancy in the child as compared to the adult, especially in terms of signs and symptoms. With the exception of central nervous system and reticuloendothelial neoplasms, malignancy in the child most commonly presents as a palpable, asymptomatic mass. Because these tumors arise from mesodermal embryonic elements, they tend to be deep seated and do not early involve the body surface or its various mucous membranes. Such symptoms as pain, bleeding and obstructive phenomenon, which may appear early with carcinoma, are generally seen only in late or far advanced stages of cancer in the child. Thus, the key to unlock the doors of successful therapy of malignant neoplasms in the pediatric patient is careful attention to any abnormal masses discovered during any routine examination of the child. The examination itself should be conducted with great care in a patient who has been wooed, bribed or cajoled into a co-operative state.

In the event that an abnormal lump or mass is discovered, steps should be taken to rule out the presence of malignancy without any undue delay. Such measures as needle biopsy, watchful waiting, fractional biopsy, et cetera, are to be discouraged. Excisional biopsy,

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From the Wayne State University College of Medicine, The Surgical Services of the Children's Hospital of Michigan and the Harper Hospital.

that is, the total removal of the lesion, is the preferred approach whenever possible. There are exceptions, of course, but this program is recommended to discourage the attitude of "let's get a little piece of it and see what it is." In general, if a suspected neoplasm is benign, it does no harm to remove it in its entirety and, if malignant, then the lesion has been managed consistent with the principals of cancer surgery.

By far, leukemia is the most common malignancy in this age group. Central nervous system tumors are second in occurrence and the two taken together account for nearly one-half of the cancerous lesions seen in the pre-adolescent child. Leukemia at present is more a problem of therapy than diagnosis and while we speak in terms of prolonged survival, we cannot yet speak of cures. Central nervous system tumors fall into a specialized class and will not be discussed in this review, other than to point out that any otherwise unexplained vomiting or neurologic disorder should be adequately investigated.

The remaining 50 per cent of malignant neoplasms in children in order of frequency of occurrence are neuroblastoma, Wilms's tumor, bone tumors, soft tissue sarcomas, carcinomas, teratomas and a small miscellaneous group of somewhat rare tumors.

It is well to mention that the malignancies commonly seen in the adult are very rare in this age group and are, for the most part, unusual under the age of twenty. Cancer of the breast is practically non-existent in the child under twelve years of age and we strongly condemn surgical intervention in infants and children for the frequently encountered small, globular, tender, movable mass usually underlying the nipple. The ductal system and breast tissue may be needlessly harmed, funtionally and cosmetically, from the most careful attempts at surgical excision. Cancer of the lung is also rare under the age of twenty years and unknown to us prior to puberty. Cancer of the gastrointestinal tract is rare except for occasional colonic malignancies and sarcomatous and lymphomatous involvement of the stomach and small intestine.

The following tumors are those most frequently encountered in the pediatric patient and are conveniently considered separately in terms of histologic tissue type rather than in organ systems:

Neuroblastoma.—There are few, if any other malignancies that vary so greatly in their behavior as does neuroblastoma. This tumor carries a varying prognosis depending on such factors as age of onset, location of the primary and the presence of bony involvement. Thirty-five to 40 per cent of the patients who present with neuroblastoma are under one year of age and the majority of the patients are under four years of age. The tumor is rare beyond the tenth year of life. Survival figures vary widely but a 15 to 20 per cent over-all cure rate is generally hoped for. One of the most remarkable properties of the neuroblastoma is its tendency to suddenly undergo maturation to the more benign ganglioneuroma or to spontaneously disappear. There is evidence to show that the prognosis is better when the tumor is discovered before the age of one year. When the tumor is located in the cervical or pelvic regions, the outlook is more hopeful. Bony metastases are present in nearly 50 per cent of the patients when first seen and the prognosis for this group is extremely poor. The tumor may arise from any point along the sympathetic chain or from the adrenal glands. Most commonly, it is seen as a large abdominal mass that appears rather suddenly and is accompanied by pain and fever. As such, the tumor is usually far advanced and its rather abrupt appearance and enlargement is often due to hemorrhage into the previously existing tumor. It is not unusual for huge tumors to be asymptomatic. In some cases, the first manifestations may be a rapid and marked enlargement of the liver due to diffuse infiltration of that organ by the tumor. The authors have encountered two patients so afflicted during the past six months. In neither of these infants, both under one year of age, was the primary lesion demonstrable. The tumor in the abdomen tends to be nodular on palpation, often extends across the midline and has a tendency to displace the kidney without distorting the calyceal pattern as seen by pyelography. Often x-ray will demonstrate calcifications in the tumor which aids in the differential diagnosis of Wilms's tumor. There is also a tendency for the aorta and inferior vena cava to be surrounded by the tumor mass, making complete removal next to impossible. Extension into the epidural space forming a dumbell tumor is not uncommon. Whether in the chest or abdomen, these large non-resectable tumors are best managed by x-ray therapy. A subsequent surgical

THE AUTHOR
Clifford D. Benson, M.D.

attack on the tumor may be indicated, depending upon the response to x-ray therapy.

At the present time, the therapeutic approach that gives the best results is a combination of surgery and immediate postoperative radiation, coupled with chemotherapy. In the past, nitrogen mustard was used as an adjunct to the other forms of treatment. Since nitrogen mustard attacks the tumor cell in very much the same manner as irradiation, it is therapeutically wise to use an agent that exerts its effect in a manner different from x-ray. Actinomycin D is such an agent and has been used with apparent good results, but needs further study. Although effective when used alone, it is thought that this drug potentiates the effect of x-ray.

In the initial evaluation of a patient suspected of having neuroblastoma, a bone survey and bone marrow study should be obtained. There is much discussion regarding the removal of the primary tumor regardless of the metastatic involvement and in so doing, the metastases are thought to regress or respond more rapidly to x-ray therapy. When complete removal is impossible, subtotal excision insofar as is safe is advised by some authors.[5] In any event, a biopsy should be obtained for positive histologic identification.

Wilms's Tumors (Embryoma).—Embryomas of the kidney are far more common than any other renal neoplasm in the pediatric patient. The peak incidence is from two and one-half to three and one-half years and they become increasingly rare with increasing age beyond six years. Bilateral renal involvement does occur. There is no significant tendency for the right kidney to be affected more often than the left. The tumor commonly presents as a large, palpable, asymptomatic intraabdominal mass. Characteristically, the tumor is smooth, does not cross the midline, except in far advanced stages and produces distortion of the calyceal pattern on the intravenous pyelogram. Rarely, the kidney is either so extensively destroyed or the drainage structures are obstructed such that excretory function is no longer present and the kidney will not visualize with intravenous pyelography. When this is the case, hydronephrosis is suggested but can generally be differentiated by transillumination of the hydronephrotic kidney.

Unfortunately, nearly one-fourth of these tumors have metastasized by the time the patient is seen. Invasion of the renal calyces or pelvis with resultant hematuria presents a poor prognosis. A chest film and bone survey should be obtained at the time of the intravenous pyelography. Once the diagnosis is suspected palpation of the abdomen should be held to an essential minimum and discontinued when the suspicions have been confirmed. Surgical intervention (nephrectomy) by the transabdominal route should be performed as soon as possible with no more than 12 to 24 hours' delay. Radiation treatments should follow the surgery and should be started on the day of surgery.[5] Although not thoroughly evaluated at present, Actinomycin D may potentiate the effect of x-ray therapy in the control of the primary as well as metastatic lesions. Metastases, most commonly in the lung, are occasionally controlled with a course of radiation therapy. A solitary lesion that shows good response to x-ray, but will not completely disappear, should be removed surgically.

The prognosis for survival is slowly improving and figures vary from thirty to fifty per cent. In our own experience[2] with seven patients with asymptomatic Wilms's tumors, four are living and well without disease six, eight, nine and eleven years after nephrectomy. One patient operated upon originally twenty-one months ago developed a solitary metastatic lesion in the right lung seventeen months after nephrectomy which was removed by wedge resection.

Soft Tissue Sarcomas.—Soft tissue sarcomas comprise a class of tumors which include such lesions as rhabdomyosarcoma, fibrosarcoma, liposarcoma and malignant neurilemmoma. Most commonly, the retroperitoneal space and the lower genito-urinary tract is involved. These tumors grow by direct extension and metastasize through the lymphatics. If discovered early, the prognosis is fair to good when complete surgical removal along with the neighboring lymphatics is possible. X-ray has little effect on these tumors, but the x-ray potentiating effect of Actinomycin D may be of some value when used postoperatively. In no other tumor in the pediatric age group is the second look operation so strongly indicated. Local recurrences are prone to appear within six to eight months and occasionally it is possible to surgically control the disease by removing a small local recurrence. This has been done successfully in two of our patients, both of whom had fibrosarcomas. One involved the cervical intra spinous ligaments and this child is well three and one-half years after secondary surgery. The other patient had involvement of the lumbar fascia and is clinically free of disease five years after operation.

Cancer of the Thyroid.—Recent surveys of malignancies of the thyroid in children suggest that x-ray treatments for benign hypertrophic lesions in the in-

fant may incite malignant degeneration in the growing child. The most direct evidence for this is found in the studies made by Rooney, Crile and others.[7-8] Radiation of the cervical and superior mediastinal regions in infancy for thymic enlargement has resulted in an apparently increased incidence of carcinoma of the thyroid in the growing child. Not only thyroid cancer, but other forms of cancer including leukemia are more common in these patients. The point to be emphasized here is the avoidance of x-ray treatments in infancy with the possible exception of the superficial treatment of hemangiomas. Thyroid carcinoma in childhood is of the papillary variety in the vast majority of cases. We agree with the conservative approach recommended by Crile.[4] In essence, the involved lobe of the thyroid is extirpated along with the isthmus and all involved lymph nodes. Postoperatively, the patient is given desiccated thyroid which apparently depresses TSH secretion and holds the tumor in check. Disfiguring radical surgery is not indicated, nor is total thyroidectomy with its accompanying potential hazard of hypoparathyroidism. The patient is afforded the usual close postoperative follow up and recurrences are dealt with as they are discovered.

Ovarian Tumors.—Malignant neoplasms of the ovary are far less common than the benign forms of ovarian tumors. This differentiation between benign and malignant lesions is made safely only by histologic identification. As elsewhere in the management of malignant disease in children, undue delay is discouraged. Any intra-abdominal mass should be considered malignant until proven otherwise by positive histologic diagnosis. Whether benign or malignant, ovarian tumors frequently become twisted on their pedicle resulting in infarction of the tumor. Abdominal pain associated with nausea and vomiting are frequently the presenting signs and symptoms. Teratomas are the most common of the ovarian neoplasms. A benign tumor for the most part, malignant degeneration is occasionally seen. Follicular cysts are benign lesions and are generally not considered hormonally active in the prepubertal age group. The granulosa cell, theca cell tumor, on the other hand, will produce hormones and is a common cause of precocious puberty. The granulosa cell tumor is the malignant component but the prognosis is generally good unless the tumor undergoes sarcomatous degeneration. Other forms of ovarian cancer are unusual under the age of twenty and probably do not occur in the prepubertal child.

Sacrococcygeal Teratoma.—This tumor is nearly always benign but can undergo malignant degeneration. The lesion is one of the more frightening birth deformities and may achieve a mass equal in size to that of the attached patient. Being present at birth, a decision must be made regarding management in as little time as possible. Myelomeningocele and chordoma, lesions that are also seen at birth, offer the principal problem of differential diagnosis. Generally, it is not difficult to determine the nature of the lesion and if it is a sacrococcygeal teratoma, early surgical intervention is indicated. Although physiologic functions are not usually deranged, pressure symptoms on the rectum, bladder and the tendency for the tumor to ulcerate favor early operation. The formidable appearance of the teratoma is not an index of hopelessness since even the largest of these tumors can be successfully excised by the experienced surgeon. Complete removal of the tumor along with the coccyx is the best safeguard against recurrence. In our experience with this lesion, two out of twelve patients did not have complete removal of the tumor initially because of technical reasons. Both of these children subsequently succumbed to recurrences that exhibited malignant behavior. The remaining ten patients are living and well. Postoperatively, these children do well and there is no clinical evidence of damage to the lower bowel, bladder and urethra or innervation of the lower extremities. Of all the tumors in infants that possess a malignant potential, the prognosis is best for sacrococcygeal teratoma if the patient is given the opportunity for early definitive surgery.

Discussions and Conclusions

There are a miscellaneous group of tumors in children that are relatively rare insofar as the frequency with which they are seen by the individual general practitioner or pediatrician. However, in the large medical centers, these unusual forms of malignancy are not uncommon. While one pediatrician may encounter only one or two such tumors in a given ten year period, the chance that any of the physicians in a given area may encounter one of these tumors is equally great. For instance, primary neoplasms of the liver are so rare that it would be unusual to see more than one or two of these tumors in a life time of practice. Because of the unusual nature of such malignancies, the patient is often referred to one of the larger medical centers and here, regardless of the rarity of the tumor in any given population, there will be a familiarity with such neoplasms that speaks

of experience with numerous cases. Tumors of the liver, thyroid, soft tissue sarcomas, ovarian neoplasms and sacrococcygeal teratomas are either malignant or potentially malignant lesions that fall within this group. That the outlook for these forms of malignancy is not totally hopeless is borne out by the survival of a significant number of the children so afflicted. In the larger medical center, where there has been an opportunity to develop experience with these lesions, a regimen of therapeusis often develops that makes possible survival rates that are indeed encouraging.

Diagnostically, many of these lesions are not a problem and are quite obvious at birth (i.e., sacrococcygeal teratoma). Some of the other forms of unusual or rare malignancies are not so readily apparent, such as primary tumors of the liver. Prolonged studies may lose valuable time toward obtaining a cure from malignancy, in addition to which, the laboratory findings are for the most part of very little help in establishing a diagnosis. In the vast majority of cases, formal biopsy is the most direct and conservative means, economically, physiologically and psychologically of arriving at a diagnosis. Having identified the nature of the lesion, then and only then can one proceed with any objectivity toward the hope of a cure. It has now been well established that radical surgery in the child and even the infant is feasible and occasionally successful. That the operation is successful is of little significance if the patient has not been seen sufficiently early in the course of the disease and a hopeless long term prognosis is presented to the operating surgeon. It is only in the lessening of the time interval between the date the patient is first seen and the date that diagnosis and treatment materialize that we may expect to see significant survival in children who are afflicted with some of the more unusual, but not totally hopeless, neoplasms.

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Preventive Medicine

New physicians are being taught to emphasize their skills on the growth and development of their patients—from conception to old age—and to use these skills in preventing disease, rather than curing it after it has happened.

Writing in the February issue of *The New Physician*, official journal of the Student American Medical Association, Lenor S. Georke, M.D., of Los Angeles, told young doctors and doctors-to-be that the increasing availability of medical care through insurance, and health education "will bring people into the physician's office before they can be labelled as patients. All of the physician's knowledge of normal physiology may be challenged in the evaluation of an apparently healthy individual."

Dr. Georke gave an example of modern medicine by citing the law which requires a blood test before marriage to show freedom from venereal disease. He said, "The physician has the choice of simply having his nurse do the venipuncture, send the specimen to the laboratory and sign a form—all without ever seeing the people—or he may obtain a history, perform a physical examination and provide marriage counseling. When the physician makes the first choice, it places him in competition with quacks; the second choice is consonant with professional responsibility in the best interest of both the individual and the physician."

The Indications for Cancer Chemotherapy

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NEOPLASTIC disease may be considered as having three phases of existence. The analysis of cancer follow-up data by Hardin Jones[1] indicates that populations of breast cancer patients are divisible into three sub-groups, according to their survival experiences. The proportion of breast cancer patients who die at a "normal" death rate comparable to that of an age-matched total population group is about the same in treated and in untreated series. It includes about 20 per cent of all breast cancer patients. Death rates from all causes in this group approximate 20 per thousand patients per year at age fifty.

Patients dying at this low rate have had, in treated series, intraductal carcinoma and carcinoma not involving axillary nodes in most instances, though a small per cent of patients who had axillary nodes positive also are found in this group, which may be said to be in the "localized" phase of the disease.

A second group which is discernible in the analysis of Jones has a death rate of about 250 per thousand patients per year. This group has only about a 10 per cent five year survival rate and, in treated series, has included almost all patients with positive axillary nodes and a large proportion of those with inoperable disease. This is the group in the phase of "disseminated" carcinomatosis. It comprises about three-quarters of all patients with breast cancer.

Finally, a third group of patients dying at a rate of 1,500 to 2,000 deaths per 1,000 patients per year is probably discernible biostatistically. This is a small proportion, only five or 10 per cent at most, of any given large population of cancer patients. These patients are in the "terminal" phase of carcinomatosis.

G. B. Mider indicated three stages of carcinomatosis in experimental animals. He identified the first stage, which might be considered comparable to above-described "localized" phase, as the period during which increase in transplanted tumor size did not interfere with normal carcass weight increase in young tumor bearing animals. In the second stage, the tumor size continued to increase rapidly, and hepatosplenomegaly, not due to metastases, developed, while total carcass weight failed to increase, normal growth having stopped. In the third stage, carcass-weight rapidly declined, death was imminent, and tumor weight failed to increase or decreased.

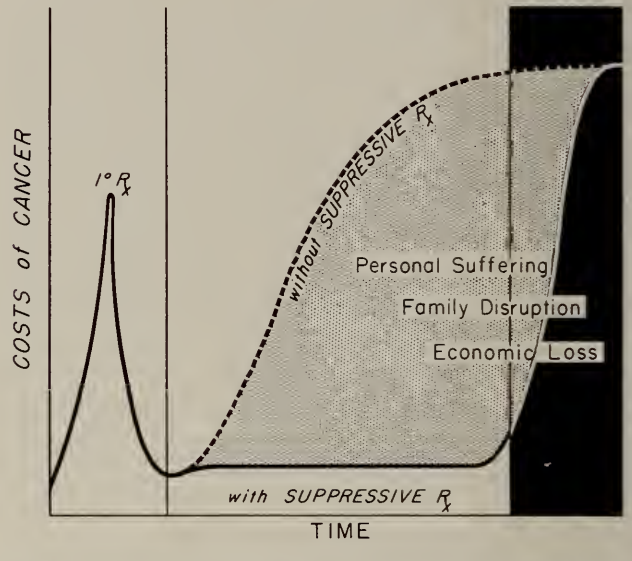

Fig. 1. Graphic representation of the social cost of cancer. Stippled area represents savings in total social costs attainable with treatment of disseminated cancer.

In the clinical management of patients with recurrent or disseminated carcinomatosis, one commonly encounters patients in whom the disease is indolent, and in whom it apparently occasions no disability. Body weight and strength are well maintained and anemia, hypoproteinemia, elevation of erythrocyte sedimentation rate and alpha 1 and alpha 2 globulins which are regularly seen in advancing neoplastic disease are absent or minimal in degree. These patients may correspond to Mider's early stage 2 and the latter,

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TABLE I.

Agent	Indications	Useful Clinical Responses	References
		Alkylating Agents	
Nitrogen Mustard (Mustargen R)	Lymphoma, chronic leukemia	Frequent	1. Comparative clinical and biological effects of alkylating agents: Ann. N.Y. Acad. Sc., 68: 657, 1958.
TEM, TESPA (Thiotepa R)	Bronchogenic, mammary, ovarian	<30%	
Chlorambucil (Leukeran R)	Prostatic, melanoma corpus uterus	Infrequent (10-20%)	2. Sykes, et al: Comparative therapeutic activity of the nitrogen mustards and allied compounds: Med. Clin. N.A. 40: 837, 1956.
Busulfan (Myleran R)		Occasional (<5%)	
		Antimetabolites	
Amethopterin (methotrexate R)	Acute leukemia in children	Frequent	1. Burchenal, J.: Current status of clinical chemotherapy. Current Research in Cancer Chemotherapy, Report No. 4, National Cancer Institute, Feb., 1956.
6-mercaptopurine (purinethol R)	Acute leukemia Choriocarcinoma Mammary, ovarian	Frequent Infrequent	2. Hertz, R., et al.: Chemotherapy of choriocarcinoma and related trophoblastic tumors in women, J. Am. M. A. 168: 845, 1958.
5-fluorouracil	Colon and rectum stomach	Occasional	3. Curreri, A. R., et al., Clinical studies with 5-fluorouracil, Cancer Res. 18:475, 1958.
		Hormonal Therapy	
Androgens	Breast Ca.	Frequent	1. Kennedy, B. J.: Present status of hormone therapy in advanced breast carcinoma, Radiology, 69:330, 1957.
Estrogens	Prostatic Ca.	Frequent	2. Fessas, P., et al.: Treatment of acute leukemia with cortisone and corticotrophin, AMA Arch. Int. Med., 94:384, 1954.
Corticoids (Cortisone, Prednisone, etc.)	Lymphoma-leukemia	Frequent	3. Lemon, H. M.: Prednisone therapy of advanced mammary cancer, 12:93, 1959.
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in whom the above laboratory indices are markedly displaced, to his stage 3.

It is impossible to avoid the economic losses, medical costs, family disruption, and personal suffering which are produced by the primary diagnosis of cancer and its necessary primary treatment. No major decrease in the summative "social cost" of the "localized" phase of cancer is realizable unless the whole technical nature of the treatment of early cancer is radically changed by advances and discoveries yet to be made.

Terminal cancer, which corresponds to the late stage 3 of Mider, is of relatively brief duration. Hence, its social costs, though great, are suffered acutely and, in the aggregate, as in the case of early cancer, are generally manageable under current schemes for funding medical care and compensating for acute social and family disruptions arising from medical illnesses.

The phase of clinical cancer labelled "disseminated cancer" accounts for the largest portion of the total social cost of the disease (Fig. 1).

It may, and does, produce protracted disabilities, psychological and physical, which, by reason of their chronicity, present special problems of funding and social support not well dealt with by systems set up primarily with acute-illness problems in mind. It is in this phase of the disease that considerable savings of social cost are now achievable through close supportive management by the physician and by chemotherapy and hormonal therapy, even as now available.

Patients with disseminated breast cancer who are fifty years of age die at a rate approximately the same as the rate of death in the general population at age seventy. All understand the importance of efforts to prevent disability, alleviate it, or temporarily relieve it, in the septuagenarian, though its return is inevitable and death within five years quite likely. It must be also understood that these efforts and services are likewise needed in patients with disseminated cancer, particularly where a significant percentage of three year survivals may be anticipated. Besides breast carcinoma, recurrent or disseminated carcinomata of the bowel, cervix, prostate, and kidney, and malignant melanoma, the lymphomata and the chronic leukemias are important tumors which fall in this class.

The phase of election for chemotherapy and hormonal therapy is the phase of disseminated cancer. Suppressive treatment is indicated as early as progression of the disease, manifested either by tumor

growth or a decline of general health, for which no other cause is discoverable, develops.

Careful diagnostic evaluation of symptoms and disabilities in patients with cancer is important. The presence of tumor does not constitute a satisfactory etiologic demonstration unless the patho-physiologic mechanisms linking tumor with the effect under study are traceable. Rational treatment and accurate prognosis also depend upon etiological knowledge in this sense. Diabetes, gout, collagen-diseases including dermatomyositis and rheumatoid-like arthritis, hypoglycemia, polycythemia, migratory phlebothrombosis and other associated states requiring direct therapeutic attention complicate the course of many patients with carcinomatosis and may be the major, proximate, manageable causes of their disability.

The general, non-neoplastic, disease liabilities of persons over sixty years of age are more commonly encountered in patients with disseminated cancer than in their non-tumor-bearing cohorts by age. Arteriosclerosis—coronary, cerebral, and peripheral; nephrosclerosis; pernicious anemia; diverticulosis; cholelithiasis; and bronchopulmonary disease produce symptoms often mistaken for the effects of cancer.

The assistance of laboratory indices in determining the point of early change from indolent, non-disabling, slowly progressive cancer of the early disseminated phase to that of progressive disabling carcinomatosis of a later pre-terminal disseminated phase should be sought. Regular x-ray examinations, where indicated, periodic measurement of tumor masses, and observation of total serum protein values, the albumin-globulin ratio, the sedimentation rate and the hemoglobulin will help to detect this change promptly.

Appropriate chemotherapy or hormonal therapy should then be instituted. A group of sources which may be employed in choosing agents for suppresive chemotherapy and hormonal therapy is included in Table I.

Successful responses cannot be expected in more than forty per cent of cases with the hormonal agents in breast and prostatic cancer, nor, in more than five to fifteen per cent of cases with the chemotherapeutic agents in lung or colon carcinoma. Still, for disease states otherwise not amenable to intervention, even these percentages of response are by no means negligible.

Summary

1. Of the biostatistically, clinically, and physiologically identifiable phases of neoplastic disease, that of disseminated cancer exacts the greatest social cost and is the most amenable to change in this regard.

2. Chemotherapy and hormonal therapy are recommended as adjuncts in the management of disseminated cancer, but not of early or terminal cancer.

3. Progression of disseminated cancer should be watched for carefully and constitutes the direct indication for suppressive hormonal and chemotherapeutic intervention.

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Ulcerative Colitis

Resolution of the ulcerative process has been reported in 19 of 24 cases of ulcerative colitis with the use of an anion exchange resin and silicates fortified by polymyxin B and phthalylsulfacetamide (Resion-PMS).

Robert Ehrlich, M.D., of Boston conducted a controlled study in which the 24 treated patients represented all stages of the diseases, varying in duration from three months to five years.

Only three of the twenty-four patients were relatively unchanged or were referred to surgery, while the two remaining patients were improved but suffered relapses during periods of four months to more than a year after treatment. Thus the complete resolution rate was 71 per cent.

No other medications were used during treatment, and the only dietary restriction was elimination of alcohol. Time for healing varied from 2.5 to 17 weeks, according to severity of the disease. Five control patients on placebo therapy failed to improve.

The study caused Dr. Ehrlich to conclude that "Resion-PMS adds materially to the armamentarium of therapeutic agents in the treatment of ulcerative colitis."—*American Journal of Gastroenterology*, February, 1960.

Frozen Sections

Rapid Tissue Diagnosis

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IT IS GENERALLY agreed[1,2] that deRiemer of Holland in 1818 first introduced the technique of freezing diseased tissues to prepare sections for examination under the microscope. Baker[3] attributed the use of the freezing technique to Raspail in 1825. Stelling[2] used the method in 1843 in studies of histology of the central nervous system. Early experiences with this technique apparently consisted of placing the tissue to be cut in a container in a brine freezing mixture. Ultimately, rapidly evaporating ether, ethyl chloride, and carbon dioxide gas under pressure in cylinders were used. The Histofreeze and cryostat are more recent technical advances.

Knives used have included razor blades,[4,5,6] two parallel knife blades introduced by Valentin (1810-1883), and the first "modern" microtome by His (1831-1904). The sliding and rotary microtomes are used largely by choice of the technician and pathologist. Ranvier's and other French microtomes preceded that of His and were simpler and more generally used.[4]

Indications for frozen sections include:

1. Determination microscopically of the disease process present.
2. Assistance to the clinician to decide upon definitive therapy while patient is anesthetized; determine extent and adequacy of surgical procedures.
3. Control clinical and gross diagnoses.

The frozen section is indicated as noted above for the patient's benefit; not merely to satisy the clinicians' curiosity.[7] Obviously it has usefulness, in addition, to provide immediate information about the type of process present in a given organ at necropsy as well as in the living anesthetized patient.

The surgeon or pathologist should not be satisfied with clinical or gross diagnosis. Even though experience and careful clinical and gross examination correlate well with microscopic diagnosis, all modalities should be utilized.

It must be appreciated by the clinician that in many laboratories frozen section techniques are inferior to permanent tissue sections and if the pathologist is unable to arrive at a definitive diagnosis, he should not be criticized, as delay of a day or two following biopsy apparently is not critical in most cases. There is, of course, increasing evidence that cancer cells are shed into the blood and lymphatics during manipulation of a neoplasm, but the exact time that the first cell is exfoliated and the body is receptive to the growth of metastatic cancer cells is unknown.

It is no longer necessary for the pathologist to be at the surgeon's side in the operating room, as time is not as important a factor with better anesthesia and pre- and postoperative care; in addition, gross diagnosis must be confirmed by microscopic examination. Likewise it is much more valuable to the clinician and patient to have the opinion of a group of specialists in pathology in a department of pathology than to depend upon any single individual for a diagnosis in a difficult case. The availability of an entire group of technicians and pathologists in the pathology department provides better, more rapid service for frozen sections than can be provided by single individuals in the usual small frozen section laboratory in the operating suite.

The pathologist is a consultant to the clinician and patient and should have the courtesy in such a relationship to know in advance about the clinical

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TABLE I. SURVEY OF ACCURACY OF FROZEN SECTION DIAGNOSES IN VARIOUS ORGANS AND SYSTEMS

Organ	Frozen Section and Control Diagnoses in Agreement				Frozen Section Diagnoses Altered by Examination of Paraffin Section Controls				
	Benign	Malignant	Total	Per Cent Accuracy	Malignant To Benign	Uncertain To Benign	Uncertain To Malignant	Benign To Malignant	Per Cent Error
Breast	226	59	288	99%	0	1	1	1	1.0%
Thyroid gland	205	14	232	94.4%	0	2	6	5	5.6%
Lymph nodes	268	62	338	96.7%	0	1	5	2	3.3%
G. I. tract	205	89	305	96.4%	0	1	8	2	3.6%
G. U. tract	48	24	79	91.2%	1	0	4	2	8.8%
Respiratory tract	65	59	131	94.7%	1	2	0	4	5.3%
Endocrine, except thyroid	22	1	24	96.0%	0	1	0	0	4.0%
Bone and soft tissue	68	16	89	94.4%	0	1	3	1	5.6%
Misc.	67	29	97	99%	0	0	0	1	1.0%
Total	1174	353	1583	96.5%	2	9	27	18	3.5%
						2.3%			
					1.2%				

findings and time of the proposed operative procedure. The pathologist will go to the operating room any time his advice is desired by the surgeon, but can spend his time to much better advantage in routine duties than in waiting for excision of tissue in the operating room. Lack of clinical information on forms and identification of exact sources of tissue specimens submitted with requests for frozen sections are the most serious errors of omission committed by the clinician. The pathologist must be provided with pertinent information concerning any given patient if his conclusions are to have the clinical-pathologic value desired.

Material and Methods

All cases studied by frozen sections during a period of two years, 1955 to '56 and 1957 to '58 were reviewed. During this period, 1583 tissues submitted from 1107 operative procedures were frozen for rapid diagnosis. In most instances, only a small portion of the tissue received was selected for sectioning by a resident or staff pathologist. The remainder of these specimens was placed in 10 per cent formalin for fixation. In occasional instances, where the excised tissue was of small size, all of the submitted tissue had to be frozen. Each tissue to be frozen was first fixed by dropping it into a 16 mm. test tube containing 10 per cent formalin solution. After heating to the boiling point, the tissue was transferred to distilled water and frozen, using the Histofreeze* apparatus. Multiple sections were routinely made and floated on distilled water until at least two satisfactory sections were obtained. At least two of these were floated on separate micro-slides, and rapidly dehydrated by pouring a mixture of equal parts ether and absolute ethanol over the section. The tissue section was then attached to the micro-slide by the addition of one drop of a dilute ether-ethanol celloidin solution. Each section was then stained with hematoxylin and eosin, dipped in absolute ethanol, and then quickly freed of celloidin by pouring the ether-absolute ethanol mixture over it. Clearing was accomplished with xylene and carbo-xylene, and the sections were mounted in "clarite."

The remainder of each frozen tissue was removed from the frozen section microtome, placed in absolute ethanol, and processed in paraffin for sectioning. Although the tissue usually showed artefact incident to rapid fixation and freezing, this was generally insufficient to cause difficulty in diagnosis. It is our opinion that the fixation artefact is not sufficient in magnitude to warrant labeling the use of hot formalin fixation as "deletory hocus-pocus," as Dockerty[8] stated. Although polychrome staining methods may be advantageous for their simplicity and rapidity, there are certain disadvantages as well; the most important of which may be the familiarity of the pathologist with hematoxylin and eosin-stained sections of routine material. Sections also are less subject to fading in hematoxylin and eosin stains and this presents certain problems with the polychrome methods.[8]

Duplicate frozen sections are examined routinely by one or more members of the permanent staff. Not infrequently consultations result in more decisive diagnoses, or add a degree of certainty to some unqualified tentative diagnoses. Utilization of numerous technical and professional members of the staff is occasionally required when as many as fifteen to twenty specimens arrive within a period of an hour.

Frozen section diagnoses are checked by diagnosis of paraffin sections prepared from the remainder of the frozen tissue; this serves to control the diagnosis. In addition, there is a portion of the material which is routinely processed and similarly allows study of histological changes under more optimum conditions. In those rare instances where the tissue remaining after

*Scientific Products.

cutting frozen sections was too limited for processing into paraffin, there usually was additional unfrozen tissue which allowed confirmation of the frozen section diagnosis.

Records were reviewed from the standpoint of the limitations associated with frozen sections, rather than from the standpoint of difficulties in diagnosis of certain neoplasms where errors or qualifications might still occur following careful examination of multiple paraffin sections. Therefore all cases in which both the frozen section and paraffin section diagnosis were qualified by similar uncertainty were eliminated from the group. These limitations cannot be ascribed to the frozen section technique alone.

Results

The frozen section diagnosis was in agreement with the final diagnosis on control sections in 1,527 of the 1,583 tissues studied during the period, for an accuracy of 96.5 per cent. Examination of control sections resulted in important modifications of uncertain or qualified diagnoses made from frozen section in thirty-six tissues (2.3 per cent). The frozen section diagnosis was reversed in regard to the benignancy or malignancy in twenty instances (1.2 per cent). Table I summarizes the distribution of errors according to organ or organ system. Best results were obtained in breast tissues, with a gradual increase in the occurrence of errors in other tissues, listed in order: lymph nodes, gastrointestinal tract, endocrine tissues except thyroid gland, lower and upper respiratory tract, thyroid gland, soft tissue and bone, and genitourinary tract.

Table II includes the false positive and false negative diagnoses of malignancy, according to the source of tissue, and the erroneous and corrected diagnoses. The two false positive diagnoses were based on focal peritoneal mesothelial proliferation and bronchiolar epithelial proliferation. Each diagnosis incorrectly signified a focus of metastatic carcinoma to the surgeon. The malignant lesions associated with false negative diagnoses covered a diverse group of lesions, but lymphoblastomas, well-differentiated adenocarcinomas of thyroid and prostate, undifferentiated carcinomas, melanoblastomas, fibrosarcomas, and chondrosarcomas proved to be most troublesome.

TABLE II. FALSE POSITIVE AND NEGATIVE DIAGNOSES

Tissue	Frozen Section Diagnosis	Final Diagnosis
False Positive Diagnoses (two cases)		
Peritoneal nodule	Metastatic carcinoma	Hyperplastic mesothelium
Subpleural nodule	Adenocarcinoma	Hyperplastic bronchiolar epithelium
False Negative Diagnoses (sixteen cases)		
Breast	Fibroma	Well differentiated fibrosarcoma
Thyroid gland (three specimens)	Inflammation	Spindle cell carcinoma
Thyroid gland	Adenoma	Adenocarcinoma
Thyroid gland	Adenoma	Adenocarcinoma
Lymph node	Hyaline fibrosis	Hodgkin's disease
Lymph node	No carcinoma	Focal metastatic small-cell carcinoma
Small bowel	Chronic ulcer	Ulcerated reticulo-endothelial cell sarcoma
Stomach	Chronic ulcer	Ulcer with lymphosarcomatous infiltration
Larynx	Chondroma	Chondrosarcoma
Epiglottis	Epithelial hyperplasia	Early infiltrating squamous cell carcinoma
Nasal cavity	Proliferating fibrous tissue	Malignant melanoblastoma
Nasal cavity	Proliferating fibrous tissue	Fibrosarcoma
Prostate	Hyperplasia	Adenocarcinoma
Prostate	Hyperplasia	Adenocarcinoma
Bone	Chronic inflammation	Plasmacytic myeloma
Skin	Junctional nevus	Malignant melanoblastoma

Table III lists the uncertain frozen section diagnoses which could be significantly clarified by study of paraffin sections.

Discussion

Our experience with frozen section diagnosis during the period of this study compares favorably with the reports of other investigators.[7,9-13] We support the use of frozen sections for rapid diagnosis of almost any tissue where there is any possibility of adding useful information which may sufficiently clarify the nature of lesions requiring definitive surgical treatment. Although there are certain hazards[13] associated with rapid diagnosis of tissue from any source, the frequency of error increases for specific types of material.

Best results were obtained in diagnosis of lesions of breast. Although Ackerman and Ramirez[9] have referred to certain problematical lesions of the breast, these not infrequently may remain uncertain after multiple paraffin sections are available for study.

False negative diagnoses, although rather frequent in the experience of Winship and Rosvoll,[14] were uncommon in occurrence in this study.

Although we employ rapid diagnostic methods in the study of lymph nodes most frequently, and achieved a rather high degree of accuracy, there was a significant number of errors. Although we accurately diagnosed lymphoblastomas on eight occasions in various locations, there were four cases in which we mis-diagnosed the lesion primarily, and eight instances in which we qualified the diagnosis in some way; this supports statements by others,[9,11] concerning the real restrictions involved in diagnosis of primary neoplasms of lymph nodes. We found similar difficulty with lymphoblastomatous infiltrations in other organs. Lymphnodal carcinomatous metastases often were easily diagnosed on frozen section, as stated by Horn.[10] Lymph nodes containing small metastatic foci were called negative on occasional frozen sections. This difficulty supported Winship's[14] opinion that it is hazardous to tailor lymph node dissections on negative sampling of lymph nodes for metastases by frozen sections.

Our experience with the application of frozen section diagnosis to endometrial curettings was quite limited during the period of this study, as acetone fixation of the entire specimen is a better technique. Jennings and Landers[11] attained a high degree of accuracy in the study of endometrium and cervix by this method, and this has been supported to some extent by Winship.[14] From our experience, though limited, we believe that both inadequate sampling and the rather frequent occurrence of superficial or non-infiltrative carcinomas, combine to limit the use of frozen sections. This opinion was expressed by Ackerman[9] and Horn.[10]

We favor the continued application of frozen section diagnosis to thyroid lesions, as recommended by Ackerman.[9] We are however, at the same time, aware of rather serious limitations in the application of the method, confirmed by our experience and that of other investigators.[15] Some of the problems in diagnosis are not entirely restricted to frozen sections, but are reflected in highly problematical lesions after multiple paraffin sections are available.

We share the opinion expressed by Ackerman[9] who condemned the application of rapid diagnostic methods to the study of lesions of skin and mucous membranes. We have had similar discouraging experiences in the diagnosis of lesions of the nasal mucosa. Although we will attempt to determine the adequacy of excision of certain neoplasms, such as basal cell carcinomas of skin, especially those which extend into deeper tissues, we often undertake it with the knowledge that in so doing we may either detract from the validity or preclude the more accurate appraisal of

TABLE III. LESIONS REPORTED AS UNCERTAIN ON FROZEN SECTION

Tissue	Frozen Section Diagnosis	Final Diagnosis
Benign on Final Diagnosis		
Breast	Inflammation, (?) neoplasm	Abscess
Thyroid gland	Adenoma, (?) carcinoma	Adenoma
Thyroid gland	Adenoma	Adenoma
Lymph node	Hyperplasia, (?) lymphoma	Hyperplasia
Pleura	Scar with atypical cells	Mesothelial hyperplasia
Thymus	Thymoma, (?)	Thymoma
Soft tissue	Productive inflammation, (?) neoplasm	Productive inflammation
Malignant on Final Diagnosis		
Breast	Intraductal hyperplasia, (?) carcinoma	Intraductal carcinoma with early infiltrative growth
Thyroid gland	Adenoma, (?) carcinoma	Adenocarcinoma
Thyroid gland	Adenoma, (?) carcinoma	Adenocarcinoma
Thyroid gland	Adenoma, (?) carcinoma	Adenocarcinoma
Lymph node	Lymphoblastoma, (?)	Hodgkin's disease
Lymph node	Lymphoblastoma, (?)	Reticulo-endothelial cell sarcoma
Lymph node	Probably metastatic carcinoma	Metastatic carcinoma
Lymph node	Lymphoblastoma, (?)	Lymphosarcoma
Lymph node	Lymphoblastoma, (?)	Lymphosarcoma
Esophagus	Atypical hyperplasia, (?) carcinoma	Carcinoma in situ
Stomach	Atypical cells, (?) carcinoma	Carcinoma
Colon	Atypical polyp	Early carcinoma
Liver } (same case)	Lymphoblastoma, (?)	Lymphosarcoma
Small bowel } (same case)	Neoplasm, (?)	Lymphosarcoma
Parotid (3, same case)	Mixed tumor, (?) malignant	Pseudoadenomatous basal cell carcinoma
Ovary	Granulosa cell tumor, (?) carcinoma	Carcinoma
Prostate	Atypical glands, (?) carcinoma	Adenocarcinoma
Endometrial curettings	Choriocarcinoma, (?)	Chorioadenoma destruens
Urinary bladder	Atypical hyperplasia, (?) carcinoma	Transitional cell carcinoma
Bone	Plasmacytoma, (?)	Plasmacytic myeloma
Bone	Plasmacytoma, (?)	Plasmacytic myeloma
Bone	Giant cell tumor, (?) malignancy	Malignant giant cell tumor

the presence of or occasionally even the type of neoplasm in the specimen or along the excised margins.

Examination of curetted prostatic tissue may reveal the presence of carcinoma in frozen sections. False negative diagnoses were rather frequent in this series. This difficulty may be explained by inadequate depth of biopsy, inadequate sampling of tissue, and production of artefact in curettings obtained by standard operative techniques. These factors combine to limit recognition of carcinoma in frozen sections. Present methods do not allow the pathologist to eliminate the possibility of carcinoma on frozen sections alone.

We continue to support the application of frozen section methods to almost any tissue. We routinely examine practically any tissue submitted for frozen section, including brain, breast, liver, kidney, lymph node, thyroid, parathyroid, pancreas, stomach, colon, salivary gland, gonads, skin, prostate, and lung. Densely calcified tissues obviously cannot be sectioned, but uncalcified and sparingly calcified portions of bone tumors may be processed without undue difficulty.

Summary

This study evaluates the accuracy of 1,583 tissue diagnoses based on rapid frozen sections stained with hematoxylin and eosin during a two-year period. The overall accuracy was 96.5 per cent. False negative and false positive diagnoses represented 1.2 per cent, and uncertain diagnoses 2.3 per cent of the total. Although the accuracy of frozen section diagnoses varied according to the source of tissue and type of neoplasm, this limitation would not seem to preclude attempts to utilize the method for almost any given tissue. However, factors which seriously limit or prevent subsequent adequate histological examination of tissue may occasionally preclude a definitive final diagnosis. For these reasons certain specimens, including those from skin and mucous membranes, when the lesion is small and material limited, are not desirable.

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Studies Effect of Smoke

"Remarkable brain responses" have been found by a University of Michigan medical researcher who is studying the effects of smoke on the nervous system.

Edward F. Domino, M.D., planted delicate electrodes in different portions of the brain to measure the activity of cells responding to the sense of smell.

He found that a "smoke signal" carried by the olfactory nerves caused unusually strong electrical discharges in the limbic, or "Old Brain," system. This is believed to be the seat of the emotions.

Early tests on dogs showed that smoke of any kind triggered widespread brain activity.

Since dogs have an unusually keen sense of smell, Doctor Domino and his associates repeated the experiments with monkeys, with essentially the same results.

Modern tranquilizer drugs also stimulate the Old Brain, Doctor Domino says. The drugs work through the blood stream, while smoke stimulates these areas through the olfactory nerves.

Embryoma of the Kidney (Wilms' Tumor)

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Battle Creek, Michigan

THE CALHOUN County Medical Society Cancer Registry, aided by five co-operating hospital cancer registries, has in eleven years ending January 1, 1960, added 4,570 accessions to its files. A search of the records produced only five cases of embryoma of the kidney (Wilms's tumor) which gives an incidence of about one in 900 of our cases. These cases are briefly reported in Table I.

Pathology.—Wilms's tumor arises in the embryonic neurogenic tissue. It more commonly occupies the superior rather than the inferior pole of the kidney. It is well outlined, globular, and large, having a capsule which is continuous with that of the kidney. This capsule tends to confine the neoplasm. As enlargement occurs the tumor becomes more bosselated and tense. It may occupy a good half of the abdomen.

TABLE I. EMBRYOMA OF KIDNEY (WILMS' TUMOR): REPORT OF FIVE CASES

Case No.	Date	Reg. No.	Age	Sex	Race	Radiation Therapy		Surgery	Pathology	Follow-Up
						Pre-Op.	Post-Op.			
1	Aug. 1948	502	4½ yrs.	M	W	1800 r	2100 r	Left transperitoneal nephrectomy Sept. 23, 1948.	Embryoma left kidney (Wilms' tumor).	Alive and well December 1959. Under development of lower ribs and upper lumbar vertebrae secondary to radiation therapy.
2	May 1950	506	9 mo.	F	W	none	2200 r	Left transperitoneal nephrectomy May 24, 1950.	Embryoma left kidney (Wilms' tumor).	Alive and well without evidence of recurrence December 1959.
3	May 1951	1134	6 wks.	M	W	none	none	Left transperitoneal nephrectomy May 2, 1951	Embryoma left kidney (Wilms' tumor)	Died May 11, 1951, 9 days postoperative.
4	June 1952	682	2 yrs.	F	W	none	3800 r	Left transperitoneal nephrectomy May 20, 1952	Embryoma left kidney (Wilms' tumor)	Pulmonary and osseous metastasis developed in 1 yr.; died January 1954
5	Aug. 1959	4387	9 yrs.	F	W	1000 r	2800 r	Left transperitoneal nephrectomy Sept. 3, 1959	Embryoma left kidney (Wilms' tumor)	Alive and well December 1959

Comment

Inspection of Table I shows the age of the patients to vary from six weeks to nine years. There were three female and two male patients, all white. It will be noted that in each case the left kidney was the one involved. There were two deaths. The patient in Case 3 died in the hospital nine days after surgery; the patient in Case 4 died two years after treatment and one year after pulmonary and osseous metastasis became evident.

Radiation therapy was used preoperatively in only two of the cases. We now believe that preoperative radiation therapy is desirable in most cases. The removal of a large tumor can become a surgical tour de force that lessens the patient's chance for survival. Preoperative radiation therapy shrinks the tumor rapidly and delays surgery only a little.

Symptoms and Physical Findings.—Three per cent of all tumors palpable in the renal area prove to be Wilms's tumor. The tumor is usually discovered by the mother, or by the physician on routine examination. Microscopic hematuria is occasionally found. A low grade fever may be present, probably due to degeneration of the tumor. Pain is a late symptom. Examination reveals a non-tender hard mass filling the renal fossae and, depending upon size, at times extending beyond the costal margin. If large, the tumor may be lobulated. Ordinarily it is rounded or ovoid.

Roentgenographic Examination.—Various techniques may be used, including the use of excretory urography, retrograde pyelography, aortography, tomography, and perirenal air. In our experience the plain

abdominal x-ray film, supplemented by excretory urography, has been sufficient to establish diagnosis. X-ray of the chest to exclude metastasis is desirable before treatment is started.

Fig. 1. Intravenous urogram, Case 5, illustrating typical distortion of left renal collecting system.

Fig. 4. Roentgenogram of spine, Case 1, showing changes in upper lumbar spine secondary to irradiation.

We mention renal biopsy by puncture only to condemn it. It is a procedure which may spread the tumor and should not be used.

Treatment.—We believe that preoperative irradiation of the tumor and transperitoneal nephrectomy, followed by postoperative irradiation, is the treatment of choice. The tumor is extremely radio-responsive. A short course of preoperative radiation therapy reduces the size of the tumor markedly, makes removal easier for the surgeon, and therefore probably reduces the likelihood of squeezing out cancer cells into the circulating blood and lymph streams at the time of operation.

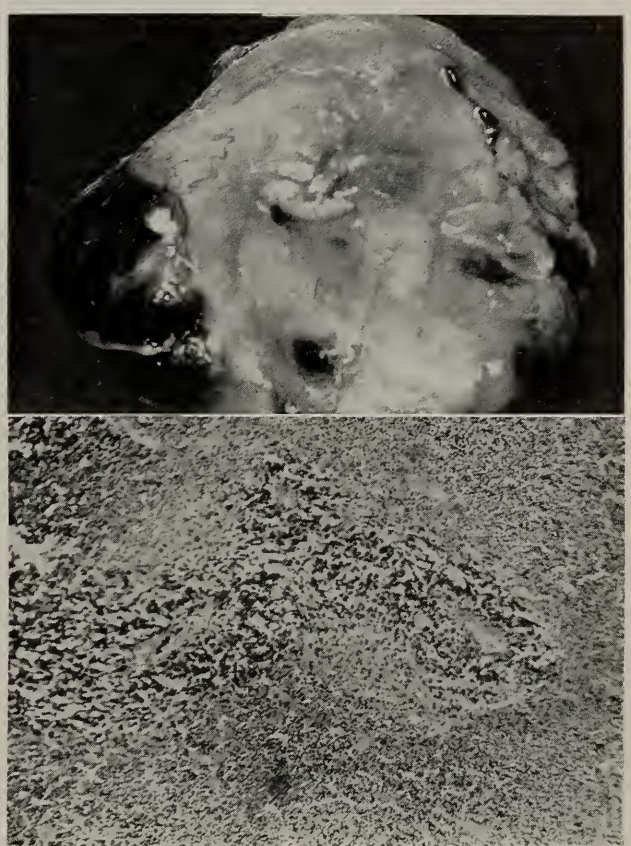

Fig. 2. Gross specimen left kidney, Case 4.
Fig. 3. Histologic appearance of tumor, Case 4.

In performing nephrectomy, the transperitoneal route is used. The incision generally extends from the costal margin to the pubis. The intestine is removed from the abdomen and carefully covered with packs. This allows good exposure of the flexure. The lateral peritoneum is incised and the flexure mobilized. The renal artery and vein are clamped, divided and ligated as soon as technically possible. After this, removal of the kidney with the tumor is made easier. Reperitonization of the fossae is accomplished if possible. If difficulty is encountered the incision may be extended into the chest to give more adequate exposure. In the cases reported we have not found this technique necessary.

Present Day Management of Thyroid Nodules and Malignancy

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SURGERY of the thyroid gland has changed radically in the past several decades. In earlier years, thyroid surgery was directed for the most part to the correction of thyrotoxicosis and the removal of large colloid or multinodular goiters, whereas it is now directed primarily against thyroid malignancy. Currently, much of the thyroid surgery consists of removal of nodules because their histologic nature is unknown. This surgery can be considered as a form of "preventive" surgery, for its purpose is the detection and removal of thyroid malignancy in its early stages.

There are certain features concerning the frequency of occurrence of nodules of all varieties in the thyroid gland, the actual frequency of malignant nodules, and the natural history of thyroid malignancy which have made present day surgery of the thyroid controversial. This pertains especially to (1) which nodules should be removed and (2) how extensive surgery should be when the presence of thyroid malignancy is established. As in all of medicine, practices vary with individual situations and undergo metamorphosis as experience and knowledge increases and as the clinical characteristics of a disease may change. It is always necessary to maintain an open mind, repeatedly evaluate results, and be willing to change one's practices if evidence so indicates. Yet, the fact that many variables often effect a given situation, makes it possible to achieve approximately the same results even though the plan of treatment varies.

We would like to present our current policies of managing thyroid nodules and malignancy along with the data upon which these practices are based. These policies are not followed by all physicians who have a special interest in this field of medicine. It is probable that certain practices are not sufficiently vital to affect ultimate results. In a number of instances, their true value must await time to accumulate sufficient statistical information. It must be emphasized that, as data has accumulated year by year, our attitude in treating thyroid malignancy has become more radical.

THE AUTHOR
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Why Remove Thyroid Nodules?

In general, we believe that most discrete thyroid nodules should be removed. It is well known that there is no reliable test which will indicate whether or not such a nodule is malignant. The risk of thyroid surgery from a mortality standpoint is well under one per cent, whereas the risk of thyroid malignancy being present approximates four per cent. The morbidity of thyroid surgery is low and should not cause significant disfigurement. The natural history of thyroid carcinoma is such that many nodules which prove to be malignant have been known to be present for five years or more without metastases, so that the duration of the presence of the nodule is not a reliable guide. The presence of benign thyroid nodules in other members of the family does not rule out the presence of a malignant nodule in a given patient.

The figure of 4 per cent is generally accepted as indicating the statistical chance that a given clinically discrete nodule of the thyroid may be malignant. This is the figure which studies of large numbers of unselected patients have provided.[1-3] This figure also approximates that which Mortensen[4] found for the incidence of thyroid malignancy in nodular thyroids found in 1,000 consecutive autopsies.

The incidence of thyroid carcinoma may be increasing, especially in the younger age groups.[5] Numerous variables preclude a definite answer to this

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question. It is of interest to observe that in recent years in our institution, nearly half as many patients with carcinoma of the thyroid have been seen annually, as those afflicted with carcinoma of the stomach or pancreas.

Which Thyroid Nodules Should be Removed?

The statement is frequently made that many patients are seen with thyroid nodules, and yet few patients with thyroid malignancy are seen. In addition, the fact that we now consider which thyroid nodules should be removed contradicts the statement made above that, in general, all discrete nodules should be removed. Thus, this is a controversial matter and deserves consideration.

There are no dependable gross criteria for distinguishing isolated malignant nodules from benign nodules of the thyroid. Only in the late stages of thyroid malignancy can one be sure of the preoperative diagnosis, that is, in patients with an obvious malignant thyroid mass with metastases. The risk of thyroid surgery is a fraction of one per cent whereas the likelihood of carcinoma being present in a discrete thyroid nodule is at least 4 per cent. Therefore, surgery is indicated for a discrete thyroid nodule in a patient whose health is otherwise satisfactory. The morbidity of thyroid surgery is sufficiently low as not to be a significant factor.

The fact that relatively few physicians care for patients who actually die from thyroid carcinoma has also led to a commonly held belief that carcinoma of the thyroid, even if present, is usually not a significant lesion. It is true that the common varieties of thyroid carcinoma, the papillary and follicular varieties, have a natural history that usually extends over a period of many years.[6-8] Even though microscopic evidence of papillary or follicular carcinoma is present, it does not mean the individual will die of this disease. These facts plus the infrequent experience with patients having thyroid malignancy has resulted, for many physicians, in an even greater attitude of disinterest in the lesion. However, there is a definite five year mortality varying in different reports, from approximately 3 to 20 per cent for even the less aggressive varieties of thyroid malignancy.[9-10] More important is the fact that, as patients with follicular and papillary carcinoma are followed for periods of ten to twenty years and longer, the mortality from the condition reaches figures which are more alarming (as high as 25 to 50 per cent mortality).[9-12] Five year survival figures do not provide an accurate appraisal of curability for this disease. A malignant lesion which can be recognized and cured in earlier stages is not one to neglect but one to approach more vigorously. Why emphasize ultra-radical procedures for late stages of malignancy when much more can be accomplished with less detriment by "preventive" surgery (surgery for thyroid nodules) and adequate but less mutilating surgery in earlier stages of malignancy?

However, wholesale thyroid surgery, in an effort to detect and treat thyroid malignancy, can be avoided. It is possible to effect selection in preventive thyroid surgery.[13] The two most common situations that lead to difficulty in deciding whether or not to proceed with surgery are (1) the presence of palpable irregularities on the surface of the thyroid gland rather than discrete nodules and (2) the presence of thyroiditis. We do not believe thyroidectomies for glands containing only palpable surface irregularities will result in a gratifying number of malignancies. An examiner soon can distinguish these irregularities from the discrete will-delineated nodule. It is usually possible to detect with a high degree of accuracy, the presence of thyroiditis, by correlating the patient's history with physical findings. Patients having a history of recent sore throats, of recurrent throat inflammation or of repeated painful, diffuse, tender swelling of the thyroid gland, are likely to be suffering from thyroiditis, especially if there is a diffuse enlargement of one or both lobes without the presence of discrete nodules. Although a few patients with struma lymphomatosa have been found to also have a thyroid malignancy, this combination is rare and the data as of now does not seem to warrant extensive thyroid surgery for this condition.[14] The patient's health otherwise should be satisfactory before proceeding with "preventive" surgery for a thyroid nodule which has only a statistical chance of being malignant.

There are certain categories of patients for whom we believe surgery is mandatory because of the high incidence of thyroid carcinoma in thyroid nodules when present in such patients. These include (1) individuals in the second and third decades of life and (2) male patients found to have a thyroid nodule. Clark[15] and others[16,17] have reported that most patients under the age of twenty having thyroid carcinoma, had received radiation therapy to the neck area in infancy. A history of previous radiation therapy to the neck or adjacent areas is ominous for a patient having a thyroid nodule.

The presence of multinodular thyroid tissue frequently presents a problem to the clinician as to whether or not surgery should be carried out. These are usually female patients. The patient frequently has

been aware of a nodular goiter for many years. In general, if a dominant nodule is present or if one or more nodules has been enlarging, surgery is advised whether the process is unilateral or bilateral. If the gland has the palpable features of diffuse indistinct irregularities, the patient is re-examined at intervals or treated medically.

We have had considerable experience with the use of scintograms for patients with thyroid nodules.[18] In general, we have found them to be of limited help in making a decision for or against surgery for thyroid nodules. Clinical features, as previously discussed, have been of much greater value.

A scintogram, theoretically, might differentiate malignant from benign lesions inasmuch as malignant nodules should show evidence of little or no function. Functioning or hyperactive nodules ("warm" or "hot" nodules) would be expected to be benign, whereas non-functioning nodules ("cold" nodules) might be malignant. The examination has been found to have limitations, however. The fact that the radioactive iodide uptake over a nodule is approximately the same as the remainder of thyroid tissue ("warm" nodule) can be attributed to (1) the presence of normal thyroid tissue around the nodule so that the nodule does not displace normal thyroid tissue, (2) the nodule being too small (under 1 cm.) to produce a significant defect on the scintogram, or (3) the additive effect of decreased function of a nodule (as does rarely occur in follicular carcinoma) with activity of surrounding normal thyroid tissue. Thus, "warm" nodules usually are actually "cold" nodules which do not alter the scintogram for one reason or another and whose true function is, therefore, not shown by the scintogram.

A "cold" nodule may be a malignant or a benign lesion; the scintogram does not distinguish between the two. The fact that nearly all discrete palpable thyroid nodules are "cold" has made the scintogram especially of limited value for many patients.

Although a "hot" nodule indicates absence of carcinoma and that surgery is unnecessary, discrete "hot" nodules have been uncommon in our experience. The fact that even a few "hot" nodules may be identified does make the examination of value, however. Actually, the scintogram has been of greatest value in enlarging thyroid nodules. If such nodules are benign, they are more likely to be "hot" on the scintogram; if "cold," they definitely must be removed surgically.

The use of thyroid medication to differentiate benign from malignant thyroid nodules has been of occasional but not consistent help. If the nodule clinically appears to be an area of irregular but normal functioning thyroid tissue, or an area of thyroiditis, the administration of thyroid frequently results in disappearance of the nodule. However, the dosage of thyroid should approximate three grains daily and, six to twelve months of therapy may be required before the desired changes occur. The administration of steroids is preferred if thyroiditis is strongly suspected. If there is a statistical chance of a discrete thyroid nodule being malignant, it would seem to be better to remove it, provided the patient's health otherwise warrants this.

What Is Proper Surgery for Thyroid Nodules?

A total lobectomy is the procedure now acceptable for surgery for thyroid nodules. The experience during earlier years when only the nodule was excised, demonstrated a high local recurrence rate due to inadequate removal in those patients in whom the nodule proved to be malignant.[19] It is our policy to remove the entire lobe involved, the isthmus and the superficial portion of the contralateral lobe. Lymph nodes in the tracheo-esophageal groove, or adjacent to the nodule should also be removed. The entire isthmus, along with the superficial portion of each thyroid lobe is removed for centrally located nodules of the isthmus.

The operator must carefully examine all of the thyroid tissue other than that in the vicinity of the nodule for which surgery has been undertaken. Occasionally, another nodule is found in remaining thyroid tissue, although it had not been recognized in the preoperative examinations of the neck. In fourteen of our patients, such a nodule, not felt preoperatively but found at the time of surgery, proved to be malignant, whereas the nodule originally leading to surgery was benign. Thus, a wide excision of other nodules should be undertaken and this may require removal of nearly all of the second lobe after a total lobectomy carried out for the nodule felt preoperatively. In such instances, we usually leave a remnant consisting of the posterior part of the second lobe of the thyroid, if feasible. However, if the nodule in the second lobe is malignant on histologic study, the remaining thyroid tissue is usually removed to complete a total thyroidectomy. The operator should also palpate the neck laterally at the time of thyroidectomy to detect enlarged nodes. However, these nodes usually cannot be palpated with any greater accuracy than by the preoperative examination, unless the carotid sheath is opened and more extensive dissection carried out.

We have obtained real help from the pathologists

by frozen section examination of the nodule at the time of surgery. If a definite diagnosis of malignancy can be established, it is much easier technically and also from the patient's standpoint, to carry out additional neck surgery at this time rather than at a later date.

What Should be the Extent of Surgery for Thyroid Malignancy?

The desired surgery for carcinoma, in general, consists of a wide en bloc removal of the primary lesion along with all tissues in the regional routes of direct and lymphatic spread. The ideal operation, however, is rarely feasible because of the presence within the en bloc area of vital structures, the removal of which is undesirable or impossible. This is true for carcinoma of the thyroid for which an ideal en bloc procedure, from a cancer surgery point of view, would probably include removal of a segment of the trachea, all parathyroid glands, one or both recurrent laryngeal nerves and carotid arteries, removal of all structures in the anterior superior mediastinum, in addition to a total thyroidectomy and a classical radical neck dissection on one or both sides. Obviously, such a procedure is not sensible in view of the known natural history of carcinoma of the thyroid. Such a procedure would not increase the number of lives saved.

It is necessary then, to compromise by fitting the extent of the surgery to the individual lesion, carrying out as wide a dissection as is consistent with a reasonable operative risk, postoperative life for the patient and cure rate.

The desirable extent of surgery for carcinoma of the thyroid is still being developed. Sufficient experience does not yet permit a definite answer to this question. There has been a tendency to utilize more radical surgery for the lesion because, with the accumulation of experience, it has become evident that the lesion does kill and is not as innocuous as once believed. Since this type of malignancy often spreads slowly, we do have the opportunity to cure a high percentage of the patients by the removal of thyroid nodules when they first are recognized. Ultra-radical surgery has not found a place in the treatment of this malignancy, for it lends itself to radical surgery in early stages. Ultra-radical surgery in late stages saves few lives. As previously stated, the minimal amount of surgery for carcinoma of the thyroid should be a total lobectomy. Although some individuals can be cured by the excision of a malignant nodule only, experience in earlier years demonstrated that local recurrences were frequent and could lead to death.

Adequate removal of the primary lesion is the most important principle in the surgical management of thyroid malignancy. Patients that succumb from thyroid malignancy, die either from local recurrence or distant metastases, not from cervical node metastases.

TABLE I. THYROID CARCINOMA: FREQUENCY OF CERVICAL NODE METASTASES

	Patients Examined	Nodes Negative	Nodes Positive
Cervical nodes palpable	31	2	29 (94%)
Cervical nodes not palpable	40	26	14* (35%)
Totals	71	28	45 (62%)

*In five of the fourteen patients, positive nodes removed when cervical lymphadenopathy appeared six months to ten years after original thyroid surgery.

If cervical nodes are palpably enlarged preoperatively, the nodes do contain metastases in nearly all cases; that is, in over 90 per cent, in our experience (Table I).[20] It is our opinion that a radical neck dissection be carried out for such patients. A radical neck dissection is carried out rather than the removal only of palpable nodes or groups of nodes. Unless a radical neck dissection is carried out in these patients, many require a repeated removal of other nodes which become palpable later. It is conceivable that malignancy can spread from residual malignancy remaining in lymph nodes not removed. Thus, a radical neck dissection is performed at the time of thyroid surgery for these patients.

Experience thus far has not been great enough to determine whether or not a neck dissection will significantly help those patients with a thyroid carcinoma whose cervical lymph nodes are not palpable. At least one-third of such patients do actually have metastases in the cervical nodes, in our experience.[20] We also have found that at least 10 per cent of these patients later develop palpable lymph node metastases which require surgery. Therefore, we have preferred to carry out modified neck dissections for many of these patients. It is probable that by such a practice we can hope for no more than a few percentage points of increased cure rate for these patients. Whether or not as much can be accomplished by waiting until cervical nodes become palpable before neck dissections are done is not established. It is conceivable that the period of delay before neck dissections are performed may permit malignancy to spread elsewhere in the body.

Importance of Pathologic Variety in Management and Prognosis

The pathologic variety of thyroid carcinoma is important in predicting future behavior of the neoplasm

and in prognosis. Most lesions are either papillary or follicular adenocarcinomas. Although a combination of these histologic varieties can be found in a majority of these lesions, one of the two types usually predominate with the papillary feature occurring most frequently. Papillary adenocarcinomas metastasize most frequently only to cervical lymph nodes and proper neck surgery can control the lesion in a majority of patients. Follicular adenocarcinomas may also metastasize to distant sites through the blood vessels and, therefore, are associated with a less favorable prognosis than the papillary variety.

A few of the follicular carcinomas are poorly differentiated. These are sometimes referred to as adenocarcinomas alone. They behave more like adenocarcinomas elsewhere in the body. Extensive local spread and distant metastases can occur from this lesion within a period of months. If not treated, this disease is lethal within a matter of months or several years. If attacked early, it can be cured. Therefore, this group deserves aggressive surgical treatment.

The pathologist occasionally makes the diagnosis of a malignant adenoma or a sclerosing adenocarcinoma. Malignant adenomas metastasize via the blood stream when they do spread. The occult sclerosing carcinoma can metastasize occasionally, usually to cervical lymph nodes.

A few patients with thyroid malignancy have an undifferentiated carcinoma. This variety usually occurs in the older age group. It spreads rapidly throughout the neck and has a poor prognosis. The patient is often inoperable for cure when first seen.

If the pathologist makes a definite diagnosis of carcinoma of the thyroid by frozen section study at the time of surgery, we usually proceed with additional neck surgery at that time. The extent of this surgery varies, depending on the findings of the preoperative examination and gross findings in the neck at the time of surgery. We personally are not too interested in the specific histologic variety at this time. It is sometimes difficult to be entirely certain of the type of lesion by frozen section. It is not difficult to carry out the additional surgery at this time. At least one-third of the patients do have metastases to the cervical nodes even though nodes are not palpable, not considering the pathologic variety of the malignancy. We prefer to carry out radical surgery in early stages rather than late stages of the disease. This usually includes a neck dissection on the side of the lesion and a total thyroidectomy.

Many surgeons do not perform a neck dissection unless cervical nodes are palpable, especially for the papillary variety of thyroid carcinoma. The majority of thyroid malignancies are predominantly papillary from a histologic evaluation. They tend to remain in the neck area and are frequently very slow to enlarge and metastasize. Thus, these lesions do require adequate neck surgery but mutilating procedures are usually unnecessary. Patients with this type of malignancy can frequently be cured even though cervical node metastases appear later repeatedly. Beahrs[10] has reported that in no case of papillary adenocarcinoma has it not been possible to control cervical metastasis even though repeated neck surgery is not required for the clinical appearance of cervical metastases at later dates. It has been our preference, nevertheless, to carry out neck dissections, often a modified neck dissection, in early stages of the disease. Meissner, Colcock and Achenbach[21] were able to find no consistently reliable factor that the pathologist could use to predict whether or not cervical lymph node metastases are likely to be present. A few of the papillary lesions spread widely early and are lethal. Winship and Rosvoll[22] state that special operations devised solely for the treatment of papillary carcinoma are illogical and unrealistic.

The Value of a Modified Neck Dissection

It appears to us that there is a real place for a modified neck dissection in surgery for carcinoma of the thyroid. By a modified neck dissection, we refer to a procedure which differs from the standard radial neck dissection in that the sternocleidomastoid muscle and the submaxillary gland area are preserved. However, the procedure does include a dissection of the posterior triangle of the neck and the removal of the jugular vein and associated lymph nodes. This then results in less neck deformity because the muscle is preserved and because it is not necessary to carry the incision so high if the removal of the submaxillary gland area is omitted. Unless there is gross evidence of widespread metastatic disease in lateral neck areas, it has not appeared to us necessary to carry out the more radical procedure. Our present practice with respect to the utilization of neck dissection for this disease is outlined in Table II.

Important areas of dissection in the neck dissection for carcinoma of the thyroid are the tracheo-esophageal groove region and tissue adjacent to the thyroid superiorly and inferiorly in the anterior superior mediastinum.[23] It seems incongruous to carry out a radical procedure to remove nodes in the lateral neck areas and yet neglect the lymph nodes in the area adjacent to the thyroid. Thus, tissues containing lymph nodes

in these areas are removed as carefully and as completely as possible. It is usually possible to preserve the recurrent laryngeal nerve on the side of the lesion but it may be necessary to sacrifice the parathyroid glands on the side of the lesion.

Occasionally, metastases are present in cervical lymph nodes bilaterally. This may be in the form of spread across the midline via lymphatics, especially in the anterior superior mediastinum or, as a result of additional primary neoplastic lesions in the opposite lobe of the thyroid gland (multifocal carcinoma). Thus, it is important to look for lymphadenopathy on both sides of the neck. Frozen section examination can be made of suspicious nodes on the contralateral side. If there is good evidence for metastasis to the opposite side of the neck, a modified neck dissection is carried out on that side, usually preserving the jugular vein.

The mediastinum is another area of lymph node spread from carcinoma of the thyroid. If a neck dissection is done, tissue containing lymph nodes inferior to the thyroid gland in the anterior superior mediastinum, can be and should be removed. Occasionally, gross evidence of mediastinal involvement is present deeper in the mediastinum in a patient otherwise operable. In such instances, the sternum is split to permit a more adequate mediastinal dissection. Although McClintock[24] reports the finding of metastasis to mediastinal nodes in 76 per cent of seventeen patients with thyroid carcinoma for whom a dissection of the anterior mediastinum was performed, we have not thought the routine dissection of the mediastinum after splitting the sternum necessary. This more extensive procedure carries a greater risk and too often the patient is inoperable for cure if mediastinal involvement is greater than that which can be removed via the neck incision.

Should a Total Thyroidectomy be Done for Thyroid Carcinoma?

We prefer to carry out a total thyroidectomy for most patients with carcinoma of the thyroid. A major reason for this is the significant frequency with which additional foci of malignancy are found in the opposite lobe of the thyroid gland; that is, approximately 20 per cent reported by Black and associates,[25] which also corresponds with our experience. Intrathyroidal spread of the primary malignancy may occur also. A second reason for performing a total thyroidectomy is that in the few thyroid carcinomas that will take up radioactive iodide, the uptake can be enhanced by absence of thyroid tissue. An additional reason for a total thyroidectomy is to prevent later appearance of a new primary site for thyroid carcinoma later, a situation which has occurred in a few instances.

Some surgeons prefer to leave a remnant of thyroid tissue along with the posterior portion of the thyroid capsule in place in the contralateral lobe of thyroid.[25] This is done to minimize the occurrence of hypoparathyroidism. Unless there is evidence of malignancy on this opposite side, it is usually possible to preserve parathyriod tissue here. Therefore, we have been removing all thyroid tissue as far as possible.

TABLE II. A PLAN FOR NECK DISSECTIONS IN THE SURGICAL TREATMENT OF THYROID CARCINOMA

In All:
Remove nodes adjacent to thyroid and in superior mediastinum through neck incision
Radical Neck Dissection:
Palpable cervical metastases present but
—primary lesion operable
—distant metastases absent
Modified Neck Dissection:
Definite thyroid carcinoma on frozen section, neck nodes not palpable, patient operable for cure
Positive nodes adjacent to thyroid, no palpable cervical adenopathy
More than minute area of thyroid malignancy on fixed sections, no cervical adenopathy, do neck dissection as second operation
Significant cervical adenopathy questionable
No Neck Dissection:
Centrally located isthmus malignancy, no cervical adenopathy, thyroid otherwise free of carcinoma
Minute area thyroid malignancy on fixed sections, no cervical adenopathy
Malignant adenoma
Pathologic diagnosis malignancy questionable
Inoperable for cure locally or because of distant metastases

It is possible to remove all thyroid tissue surgically. However, occasionally a small remnant of thyroid tissue is left in the region of the pyramidal lobe or higher in the midline of the neck. These latter areas probably represent small remnants of thyroid tissue along the line of descent of thyroid tissue in the neck during embryonic development which had previously been without function.

Postoperative Management for Thyroid Malignancy

Following surgery for thyroid malignancy, it is wise to follow patients periodically. This is one malignancy for which real help can still be given even though metastases appear later.

If patients have had a total thyroidectomy, we usually obtain a scintogram post-operatively to identify the presence of any residual thyroid tissue for possible use later. Thus far, we have not thought radiation therapy postoperatively to be clearly of help. Therefore, it has been used only for extensive inoperable undifferentiated forms of thyroid malignancy.

If palpable lymph nodes later appear in the neck,

they are removed. In such instances, the entire group of nodes which may be present in the area are excised.

A few lesions, especially of the follicular variety, will take up sufficient radioactive iodide. If metastases develop from these lesions, administration of radioactive iodine will be of help.

Summary and Conclusions

1. Surgery of the thyroid is changing; removal of nodules is being emphasized. This has resulted in removal of thyroid malignancy in earlier stages.

2. Although the natural history of carcinoma of the thyroid frequently extends over many years, it can kill.

3. Most discrete thyroid nodules require surgery in patients having satisfactory health otherwise.

4. The presence of minimal palpable irregularities of the thyroid or evidence of thyroiditis producing thyroid irregularities, represent conditions for which surgery is usually not necessary. Selection for surgery is possible.

5. The scintogram has been of limited value to us in deciding whether or not a thyroid nodule should be removed. Surgery is not necessary for "hot" nodules, but such nodules are few in number.

6. A total lobectomy is the operative procedure indicated for a thyroid nodule.

7. The presence of additional thyroid nodules should be looked for at the time of surgery and adequately removed.

8. If the presence of carcinoma of the thyroid is established, a total lobectomy is the minimal operative procedure to be carried out and frequently a total thyroidectomy should be performed.

9. If a patient with carcinoma of the thyroid has palpable lymph nodes, a standard radical neck dissection should usually be performed.

10. If a patient with carcinoma of the thyroid does not have palpable cervical lymph nodes, at least one-third of the patients do contain metastases to the nodes and at least ten per cent later require removal of these nodes when they manifest themselves clinically. Therefore, we prefer to carry out more radical neck surgery in the early stages of this disease rather than later.

11. The modified neck dissection appears to be a satisfactory procedure for many selected patients with carcinoma of the thyroid.

12. The removal of lymph nodes in the tracheo-esophageal groove and other areas when carcinoma is present adjacent to the thyroid gland itself is important.

13. The majority of lesions of thyroid malignancy are predominantly papillary adenocarcinoma. This variety usually remains in the neck area and, therefore, can be cured by adequate local removal of the primary lesion in addition to cervical node metastasis, even thought these metastases are extensive. Mutilating procedures are not necessary, however, and the surgeon may be more conservative in performing neck dissections in the absence of palpable nodes.

14. To date, we have not found routine mediastinal dissections worth the added risk involved in surgery for thyroid carcinoma.

15. Patients deserve repeated postoperative follow-up examinations indefinitely, for many of these patients still can be salvaged by proper additional treatment later, even though recurrences appear.

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(Additional references on Page 615)

Research at the Yates Memorial Clinic

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THE YATES Memorial Clinic was established in May, 1950 by the Southeastern Michigan Division of the American Cancer Society as a small model Cancer Detection Center to serve three primary purposes: to provide facilities for cancer detection examinations for persons in the surrounding communities, to conduct clinical research on the incidence of benign and malignant neoplasms in the general population, to evaluate the efficacy of various tests in the early diagnosis of cancer, and to act as an educational center where physicians might gain experience in the methods of cancer detection. It is the intent of this paper to elaborate on the clinical research being conducted at the Yates Clinic, particularly in regard to sigmoidoscopic examinations as a routine measure in the detection of polyps of the large bowel and the value of the Papanicolaou smear in the detection of early malignancy of the cervix.

As mentioned in a previous publication in THE JOURNAL[1] persons accepted for examination are presumably asymptomatic and must provide the name of their private physician to whom a report of the examination is sent. A complete history is taken and a physical examination is performed including, in the female, a pelvic inspection with routine Papanicolaou smears of the cervix and vagina. Sigmoidoscopic examinations are routinely performed regardless of sex or age. The various examinations are performed by members of the staff of Wayne State University College of Medicine. Complete blood counts and urinalyses are performed on each patient and biopsy specimens are taken when indicated. Ear, nose and throat examinations with visualization of the vocal cords are made and roentgenograms of the chest are

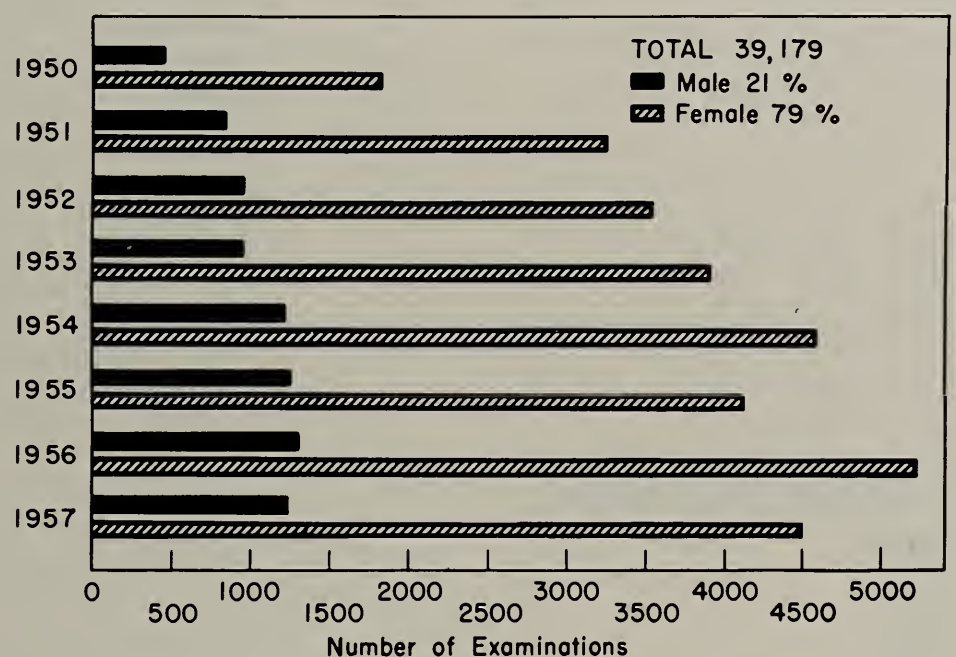

Fig. 1.

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obtained when symptoms warrant. The patient is not informed as to the diagnosis or recommended therapy at the Clinic, rather they are instructed to consult their private physician. Within fourteen working days

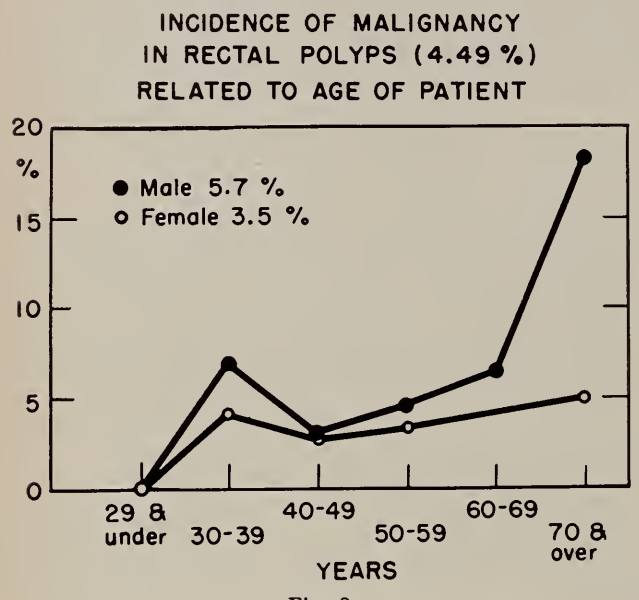


Fig. 2.

of the time of examination the report is sent to the private physician, and at the same time a card is mailed to the patient reminding him or her to consult their physician. Three months following the patient's

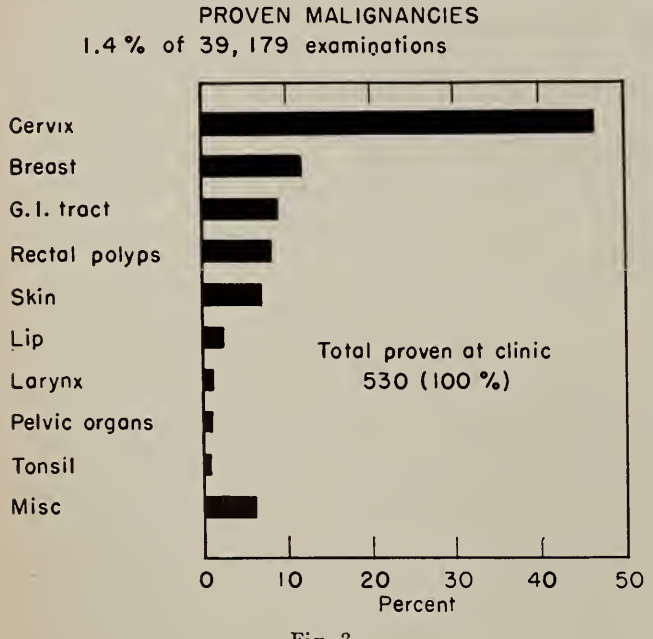


Fig. 3.

examination a follow-up letter is sent to the doctor requesting information on further diagnostic procedures and ultimate prognosis.

From the inception of the Clinic in May 1950 through December 1957 there have been 39,179 persons examined: 79 per cent being female and 21 per cent male (Fig. 1).

The age distribution of the examinees favors the younger age groups in that almost 50 per cent of the males and slightly more than 40 per cent of the females are under the age of 40 (Fig. 2). The age distribution is important in considering the incidence of pre-malignant and malignant diseases as both conditions, of course, are more common in the older age group.

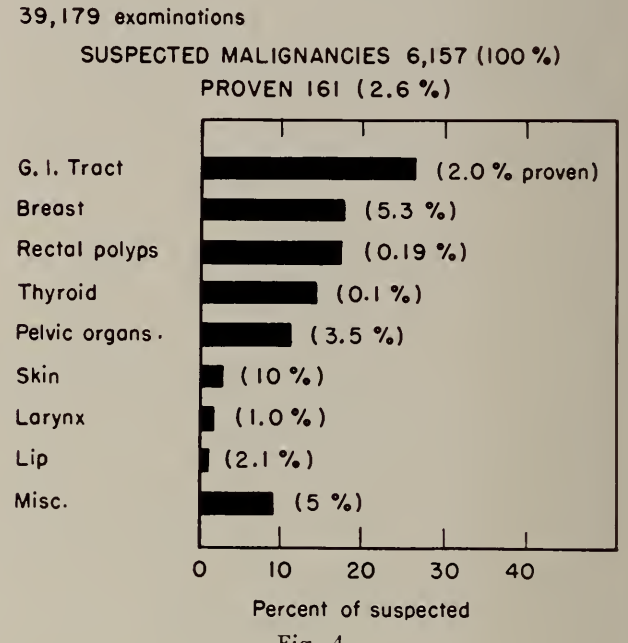


Fig. 4.

Of the total 39,179 individuals examined 530 or 1.4 per cent were identified as harboring cancer at the Clinic, proven either by biopsy or by operation within two to four weeks of the initial examination (Fig. 3). Of these proven malignancies almost 50 per cent involved the cervix, 12 per cent the breast, 9 per cent the GI tract, followed in decreasing order by rectal polyps, skin, lip, larynx, pelvic organs, tonsils, and a group of miscellaneous carcinomas including the prostate, pancreas, lung, et cetera.

In 6,157 instances, or 15.7 per cent, of the total number of persons examined the possibility of malignancy existed although it could not be proved at the Yates Clinic. The most common area of suspected malignancy was the gastro-intestinal tract comprising 25 per cent followed by breast (17.6 per cent), rectal polyps (17 per cent), and in decreasing order thyroid, pelvic organs, skin, larynx, lip, and finally a miscellaneous group (Fig. 4). A successful follow-up on these patients was accomplished in approximately 80

per cent and 161 additional cancers were diagnosed as a result of the initial Yates Clinic examination with the percentage breakdown by site as shown.

Combining the 530 cases of cancer proved at the Yates Clinic and the 161 cases suspected at the Clinic and proved by the private physician results in 691 or 1.8 per cent incidence of cancer discovered as a result of the "detection" examination. Of even greater significance is the fact that most of these cancers are found at an early stage while they are still localized and presumably amenable to therapy.

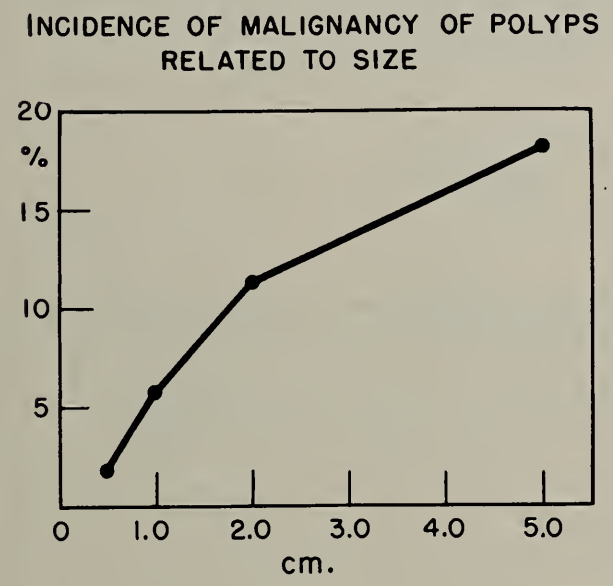


Fig. 5.

As a result of such a thorough examination many non-neoplastic diseases are discovered and as part of a public health measure these conditions are also reported to the patient's physician. In the 39,179 examinations, 59.6 per cent of the patients were discovered to have one or more non-neoplastic diseases, many of which had already been diagnosed and were under treatment by the family physician; 24 per cent of the examinees had no discoverable physical abnormality.

Statistics are available on the results of routine sigmoidoscopic examinations on 32,177 patients from May 1950 through December 1956. During this time interval 3.1 per cent of the patients were found to have rectal or colonic polyps (Fig. 5). There was an overall incidence of 5.6 per cent in males and 2.4 per cent in females. It is of interest to note that the incidence of polyps was almost twice as high in males as in females in every decade, and over the age of fifty the incidence in males is about 10 per cent.

Pathologic examinations were made by members of the Department of Pathology of Wayne State University College of Medicine. A pathologic diagnosis of malignancy was made in forty-four instances resulting in an overall malignancy rate of 4.49 per cent considering all polyps whether biopsied or not (Fig. 6).

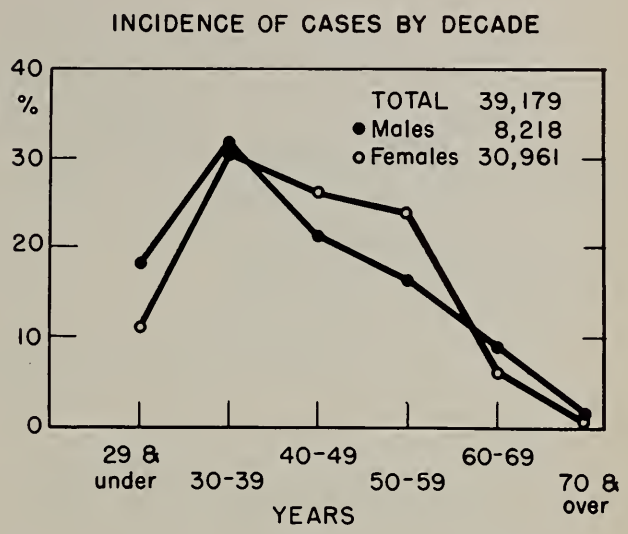


Fig. 6.

Since only about one-half of the polyps discovered at the Clinic were biopsied the incidence of malignancy of those biopsied is around 9 per cent. There was a higher rate of malignancy in male patients than in females and the incidence increased with age. The decline in incidence of malignancy in women over seventy years of age is undoubtedly due to the small number of patients examined and therefore is not statistically important.

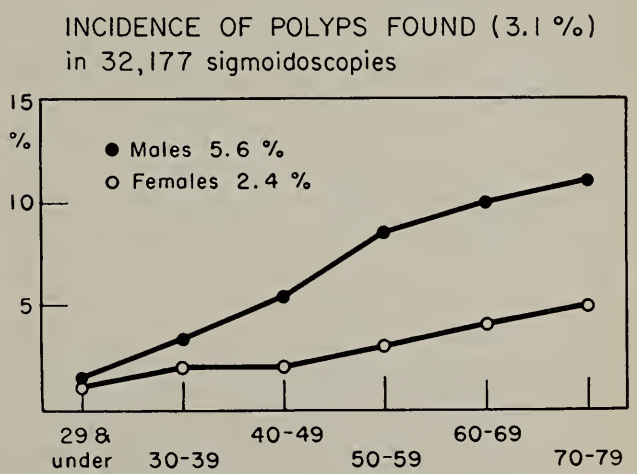
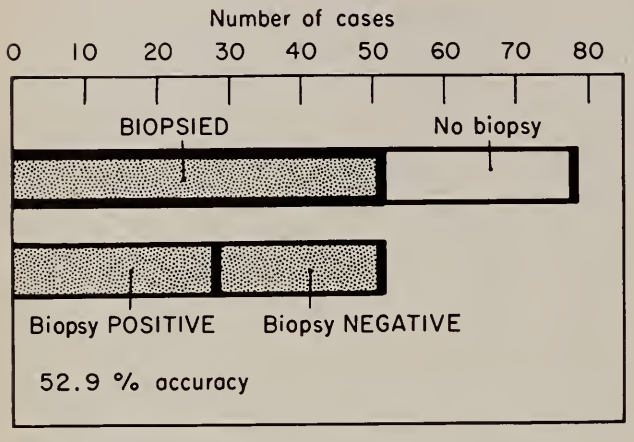


Fig. 7.

The incidence of carcinoma in polyps increased strikingly with the size of the polyp (Fig. 7). In polyps under 0.5 cm. in greatest diameter 2 per cent

were proved histologically to be malignant. In the 0.6 to 1 cm. group 5.9 per cent were malignant; in the 1.1 to 2 cm. group the rate was 1.6 per cent; and in the 2.1 to 5 cm. group it was 18 per cent.



CORRELATION OF BIOPSY RESULTS
WITH SUSPICIOUS SMEARS

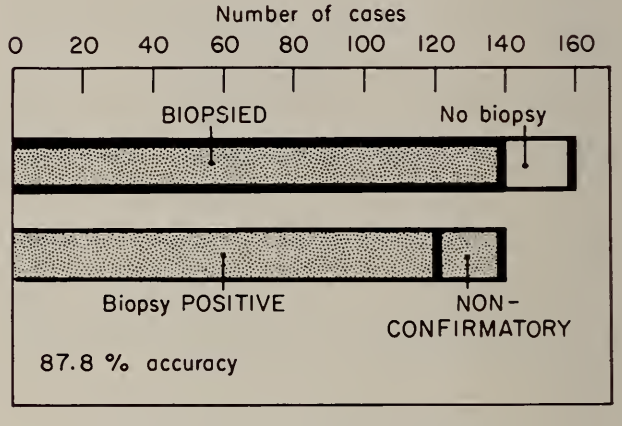
Fig. 8.

One of the cancer detection methods which has been under close scrutiny at the Yates Clinic and one which has added materially to the early diagnosis and potential curability of cervical cancer is the Papanicolaou smear. During a four and a half year period beginning in May 1951, 15,832 women underwent routine Papanicolaou smears of the cervix of which 160 were reported as positive and seventy-seven suspicious. In 140 of the 160 positive smears, biopsy was obtained and 123 proved by histological examination to be carcinoma (Fig. 8). This results in an accuracy of 87.8 per cent since it is usually considered that the percentage of positive smears confirmed histologically constitute the "specificity" of the test. As mentioned by Dale[2] it should be pointed out that the smear may be more correct than the biopsy because the material constituting the smear may be more representative and may contain neoplastic cells from an area missed by the biopsy; cold knife cone biopsy diminishes the possible error in this regard.

In the seventy-seven cases with suspicious smears there were fifty-one biopsies, twenty-seven or 52.9 per cent of which were positive (Fig. 9). The importance of the suspicious smear cannot be over emphasized and is well-illustrated in this study.

The value of exfoliative cytology as a screening procedure is well-illustrated by the number of instances in which no clinical evidence of cancer of the cervix was present. Of the total of 147 cases of squamous cell carcinoma sixty-three or 42.8 per cent were detected first by smear examination. Contrary to what might be assumed these were not all pre-invasive. As seen in Figure 10 they have been separated into three groups: pre-invasive, invasive, and those in which the presence or absence of invasion cannot be definitely decided. As would be expected, in the pre-invasive group a high proportion (approximately 75 per cent) were first detected by smears. The most significant figure is seen in the frankly invasive group of carcinomas; here over 23 per cent were clinically undetectable and would have been missed completely in the absence of cytological studies.

A study is now being completed in which 100 con-



COORELATION OF BIOPSY RESULTS
WITH POSITIVE SMEARS

Fig. 9.

secutive patients with positive Papanicolaou smears of the cervix have been followed very closely and although on initial consideration only about 58 per cent of the smears are substantiated by biopsy, an exhaustive study of these few patients reveals this correlation between smear and ultimate tissue diagnosis to have risen to around 92 per cent. This study would indicate that a patient with a positive Papanicolaou smear must be considered to harbor a malignant neoplasm until proven otherwise. Appropriate steps to be taken to substantiate the positive Papanicolaou smear are a punch biopsy and if negative a cold cone section of the cervix. In instances where this is negative, a dilation and curettage should be considered, for there are several instances where the Papanicolaou smear indicated an endometrial carcinoma. If these procedures do not reveal malignancy the patient should be observed closely at periodic intervals and repeat smears and biopsies taken.

Conclusion

1. Some of the clinical research being conducted at the Yates Memorial Clinic is presented, particularly in regard to sigmoidoscopic examination as a routine measure in the detection of polyps of the large bowel, and the value of the Papanicolaou smear in detection of early malignancy of the cervix.

2. Of 39,179 patients examined, 1.8 per cent were demonstrated to be harboring malignant disease.

3. This study demonstrates that the frequency of colonic polyps and the incidence of malignancy increases with the age of the patient and is greater in men than in women. It also points out the relationship between malignant change in the polyp and size of the polyp in that the larger the polyp the greater the incidence of malignancy. Nearly 20 per cent of all polyps over 1 cm. in greatest diameter are malignant on histological examination.

4. We believe this study demonstrates that a sigmoidoscopic examination should be performed on all adult patients particularly over the age of forty as part of the routine physical examination. It cannot be emphasized too strongly that it is only by the detection of early malignant or premalignant lesions of the colon followed by their prompt removal that the cure rate of carcinoma of the colon will be significantly improved.

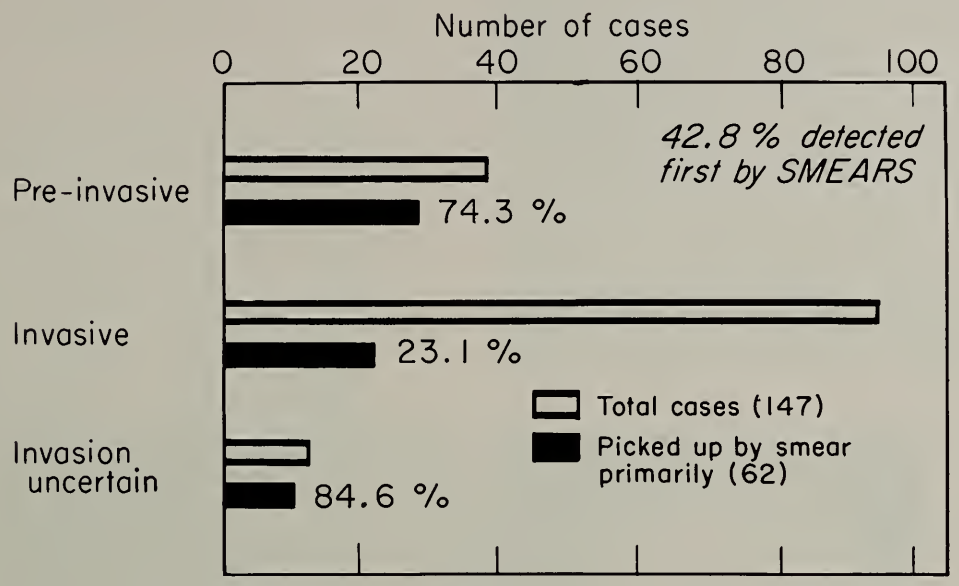


Fig. 10.

5. In the study of 15,832 women undergoing routine Papanicolaou smears of the cervix an accuracy of positive smears of 87.8 per cent is demonstrated.

6. It is pointed out that 42.8 per cent of 147 cases of squamous cell carcinoma of the cervix were unrecognized by the clinician and first suspected by a positive Papanicolaou smear; 23 per cent were early invasive carcinoma.

7. Any patient with a positive Papanicolaou smear must be considered to harbor a malignancy until proven otherwise.

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Neoplastic Involvement of the Colon Residing in a Scrotal Hernia

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WHILE THE incidence of carcinoma of the colon is rather small, it should be kept in mind in all cases of hernia.

Case Report

The patient was a white man aged sixty-seven, a manufacturer's agent, who was admitted to Highland Park General Hospital on July 14, 1959, with the complaint of a large mass in the left groin extending into the scrotum, clinically appraised as a large non-reducible scrotal hernia containing several loops of bowel.

The patient stated that two years before entering the hospital after lifting a heavy object, he noticed a small mass in the left inguinal area which persisted and gradually became larger. Three months prior to admission the mass descended into the left scrotum and he experienced a great deal of pain with pronounced tenderness. At that time he began to notice a troublesome anorexia and although restricting his diet to cereal and milk, he experienced nausea and vomiting, gave a history of tarry stools on several occasions with weight loss of approximately 10 pounds.

Past History.—Patient had suffered a CVA (subarachnoid hemorrhage) seven years ago and had been incapacitated since that time with weakness of the right side.

Physical examination revealed a well developed, moderately well nourished white male who showed marked pallor and there was residual weakness of the right side. The chest showed increased A-P diameter and resonance with scattered rales heard bilaterally. In the abdomen there were no palpable masses and the liver did not appear to be unusual. Tenderness over the left inguinal ligament and a grapefruit size mass in the left scrotum was noted. This did not transilluminate and bowel sounds could be heard faintly over the scrotum. The remainder of the physical examination was negative.

Laboratory studies made at the time of entrance to the hospital, revealed a total white count of 5,000 with 62 per cent PMN's and 28 per cent lymphocytes. Hemoglobin

Fig. 1. Barium enema roentgenogram with rectal ampulla, sigmoid, and lower descending colon distended with barium with a large part of the lower colon filling the hernial sac. Ill-defined constriction was seen in the sigmoid area.

Fig. 2. A right anterior oblique spot film showing the cannulization of the barium stream with overhanging edges characteristic of the napkin ring deformity of annular carcinoma. The lesion measures 5 cm. in length.

was 5.0 grams with 20.5 microhematocrit. Blood smear showed marked hypochromia, anisocytosis, poikilocytosis, and microcytosis. The urine, blood sugar, NPN and Kline all were negative but a slight trace of blood was found in the stool by the guaiac test.

The clinical impression was "indirect inguinal hernia" with marked blood loss from unknown causes. Due to the marked anemia, herniorrhaphy was delayed and transfusions were started. It was quite difficult to bring the hemoglobin up to normal levels and still more difficult to maintain it.

Fig. 3. A postevacuant x-ray study of the scrotal area. Arrows point to the lesion overlapped by a redundant loop of sigmoid. There was no appreciable obstructive effect noted on the proximal colonic contents.

Because of the unusually low hemoglobin and marked changes in the red blood cells, it was decided to study the patient to rule out possible neoplasm or other blood destructive lesion.

A chest roentgenograph on July 15, 1959, revealed moderate cardiac enlargement and the lung fields were clear. A barium enema made July 20, 1959, demonstrated the colon extending in a sharp loop into the large hernial sac. The entire sigmoid and a portion of the descending colon were entrapped in the hernial sac. In the sigmoid colon there was a napkin ring deformity with over-hanging edges suggesting an annular carcinoma of the colon. Fluoroscopically the lesion did not appear to be adherent to the adjacent hernial sac (Figs. 1, 2, and 3).

Following numerous blood transfusions the hemoglobin was finally brought up to 12.4 grams and surgery was done on July 27, 1959.

Because of the history of previous subrachnoid hemorrhage, the anemia, and an emphysematous chest with chronic bronchitis, the anesthesia department was somewhat hesitant about giving general anesthesia. Accordingly, the patient was given continuous epidural anesthesia.

Since the status of the scrotal lesion was unknown, it was felt that an inguinal incision should be made first in order to free up the lesion from the sac and surrounding tissue. On opening the hernial sac, the napkin ring lesion presented itself. During this early portion of the operation labored respiration and a sharp blood pressure drop occurred, necessitating continuous use of antihypotensive drugs.

Approximately 10 centimeters of sigmoid was found to be in the sac both proximal and distal to the lesion and there was no adherence of the lesion to the sac. Because of the precarious condition of the patient it was decided to resect through the hernial sac taking 8 to 10 centimeters of bowel on either side of the lesion with a primary end to end anastomosis. Since the hernia was partially sliding,

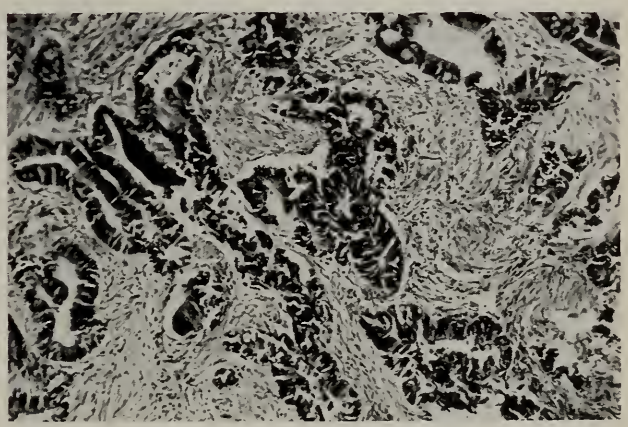

Fig. 4. Microphotograph demonstrating the adenocarcinoma with numerous atypical accini with many mitotic figures in the carcinoma cells.

it was necessary to enlarge the internal hernial ring in order to replace the bowel into the abdomen. The excess sac was trimmed off, the peritoneum closed, and a routine left inguinal herniorrhaphy followed.

The immediate postoperative course was stormy with development of left pneumonitis and temperature elevation to 104°. There was marked lack of cooperation by the patient which prolonged recovery from the pneumonitis. Bowel sounds were heard forty-eight hours after surgery, and a small amount of stool appeared in seventy-two hours.

Following the resolution of the pneumonitis, the rest of the recovery period was uneventful. Clear fluids were begun in seventy-two hours, progressing to low residue diet in six days. The patient was discharged on August 13, 1959.

The pathological report revealed "adenocarcinoma of the sigmoid with lymph node metastasis." The tumor was found to have extended through the serosa.

Primary neoplastic involvement in inguinal and scrotal hernia have apparently been exceedingly rare. A search of the literature reveals only fourteen other cases reported in the last twenty-eight years. This is the fourth case of adenocarcinoma of the colon and the third case recognized preoperatively.

Lezar has classified tumors of the hernial sac as (1) intrasaccular, (2) saccular, (3) extrasaccular. The bulk of tumors reported have been extrasaccular in character. The previously reported neoplastic growths were (1) lipomas, (2) carcinoma of the appendix, (3) fibrosarcoma of the mesentery, (4) fibroma of the mesentery, (5) primary carcinoma of a bladder diverticulum, (6) carcinoma of the sigmoid, (7) lipoblastic sarcoma of the omentum, (8) mesotheliomas, (9) liposarcomas, (10) fibromyxomas and (11) carcinoma of the bladder.

The first case reported in the literature of adenocarcinoma of the sigmoid in a hernial sac was made by Gerhard[1] in 1938. This was a man, thirty-seven years of age, with an inguinal hernia who was admitted complaining of considerable obstipation and moderate pain. Preoperative diagnosis of the tumor was apparently not made. Operation revealed a large adenocarcinoma of the sigmoid which was successfully resected.

In 1940, Zimmerman and Laufman[2] reported three cases of neoplastic involvement, all were sarcomatous in arising from tissues of the hernial sac. Their cases ranged in age from eleven weeks of age to sixty-seven years. The first case proved to be a primary peritoneal tumor or mesothelioma of the peritoneum. The second case in a sixty-four-year-old man had a history of an inguinal hernia of twenty years' duration. The presenting complaint similar to our case was slight weight loss and intermittent obstipation with probable obstruction with irreducibility of the hernia. Their case proved to be a liposarcoma of very malignant type and the patient died within six months of metastases. The third case, a sixty-year-old man, proved to be a degenerated fibromyxosarcoma. None of these cases was suspected of harboring neoplasm preoperatively.

Fieber and Wolstenholm[3] reported in 1955 two cases of neoplasm as a complication of inguinal hernia. The first case was an adenocarcinoma of the sigmoid in an elderly male who had complained of obstipation and cramps of ten days' duration with a progressively enlarging scrotal hernia which had been symptomless for ten years. The mass in the scrotum had been irreducible for three years. A weight loss of 10 pounds had been observed over a period of six months. At operation the lesion was found to have spread to the peritoneal cavity with numerous implants.

The authors believe that irreducibility of the hernia strongly suggests carcinomatous complication, particularly in the older patient. This occurs when (1) the tumor grows larger than the inguinal ring (2) when there is growth of the lesion with fixation to the sac itself (3) when supervening inflammatory process with edema and other products of the inflammation are present.

Bruce[4] reported a case diagnosed preoperatively in a sixty-six-year-old male with symptoms suggestive of carcinoma of the colon with blood in the stools, intermittent attacks of diarrhea and constipation with slight weight loss. The hernia had been present for three years and it was non reducible for only a short time. The only physical finding was the large incarcerated hernia. A barium enema examination visualized a lesion "highly suggestive of carcinoma of the sigmoid in the hernial sac."

At operation the tumor was found to be adherent to the sac wall. A Paul-Mikulitz type of operation was done with extensive repair of the hernia. The pathological report revealed a polypoid type of mass approximately 6 centimeters in length with areas of necrosis. Invasion of the fatty tissue was demonstrated although an excised lymph node was negative.

The present case revealed symptoms only mildly sugestive of carcinoma of colon. The blood loss might have been attributed to obviously demonstrated bleeding hemorrhoids. However, the irreducibility of the mass, the anorexia with consequent mild weight loss, and the significant blood changes, properly alerted the clinician to look further for other pathology.

Barium enema examination to be followed where indicated by small bowel studies would appear to be indicated in all cases of hernia especially in older males where herniorrhaphy is contemplated. The barium enema should be done first, so as to obviate causing acute obstruction from the barium given orally. Earlier examinations in these cases would undoubtedly improve the chances of obtaining subserosal lesions which have not metastasized.

In summary, a case of long standing irreducible hernia in an older man with blood changes suggesting significant blood loss was found to be harboring a clinically unsuspected carcinoma of the colon which was successfully resected.

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The Future of Exfoliative Cytology in the Radiotherapy of Cancer

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THE RADIOCURABILITY of a cancer is only partially dependent upon its gross features (location, size, and structures involved) and the skill of the radiotherapist. Other significant factors are the radiosensitivity and metastasizing capabilities of the neoplasm, and the reaction of its host tissue. It is these latter factors which are more difficult to determine.

Recent reports have indicated various applications of cytologic techniques to radiotherapy.[1-4] The purpose of this communication is to review some of the progress in this field, and to indicate some possibilities for future applications.

Histologic Type and Degree of Differentiation of the Cancer

Cytologic smears are generally thought of in terms of "positive" or "negative" for malignant cells, although the histologic type can also be determined in a high percentage of positive smears.[5,6] Despite the high accuracy of cytologic diagnosis, there should be histologic verification of a suspected cancer whenever possible. The surgical biopsy should not be abandoned in favor of smear diagnosis. Nevertheless, the latter can provide valuable supplementary information before, during, and after radiation treatment.

Pre-irradiation biopsies may be adequate to identify a malignant neoplasm and its microscopic type, but there may be insufficient viable tissue to determine the degree of cell differentiation. This can be accomplished by the examination of smears from the surface of squamous cell carcinomas using the nucleo-cytoplasmic ratio and keratinization as criteria.[7]

Radiosensitivity

The determination of neoplastic cell differentiation is of limited value in measuring radiosensitivity. Although, in general, well differentiated neoplasms are less radiosensitive than are anaplastic ones, there are many exceptions to this rule, and other means of determining radiosensitivity are needed.

Radiosensitivity may be determined by serial biopsies taken during treatment[8,9] but this involves careful selection of biopsy sites, discomfort to the patient, and the risk of producing a "locus minores resistentsia" with resultant poor healing. Smears, on the other hand, may be obtained easily and painlessly, and contain benign and malignant cells from various portions of the lesion.

During the early phases of irradiation, neoplastic cells show degenerative changes such as vacuolization and chromatin abnormalities culminating in cell destruction. There is marked cellular and nuclear enlargement, and increase in multinucleated cells or syncytial masses due to arrest or alterations of mitotic activity.[1]

There is little correlation between tumor size and rate of disappearance of malignant cells from smears in carcinomas of the oral cavity and oropharynx. Thus, the rate of cytologic conversion appears to be a measure of sensitivity and is evaluated easily by serial smears taken during treatment. Smears become negative within a few days after irradiation is started for lymphoepithelioma which is characteristically radiosensitive, while smears from differentiated squamous cell carcinomas may remain positive for weeks.

Maturation During Irradiation

The two major direct effects of irradiation on malignant cells are destruction and maturation. The relative significance of the latter is not known. Increase in the differentiation of carcinomas has been noted during irradiation.[8-11] Some believe this is true maturation;[8-11] others think that it merely indicates temporary destruction of more immature cells so that the remaining malignant cells appear more mature.[12] According to Glücksmann[8] neoplasms which decrease slowly in size during irradiation may be responding by maturation rather than destruction, and may be associated with a good ultimate prognosis. Hall and Friedman[11] noted this phenomenon more often in under-irradiated neoplasms. Study of irradiated oral cancers by serial oral smears revealed some degree of maturation (measured by increase in nucleocyto-

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plasmic ratio and keratinization) in most cases, but was striking in only a few instances.[10] Examination of smears again provides a simple method for this evaluation.

Irradiation Changes in the Host Tissues (Indirect Effect)

There is considerable clinical and experimental evidence to indicate that the beneficial effect of irradiation is, at least in part, due to the response of the host tissue:[12-15]

1. Larger doses of irradiation are required to destroy neoplasms grown *in vitro* than *in vivo*.[14]
2. Irradiation has less effect on embryonic tissue which has not yet developed a vascular system than on more mature embryos.[13]
3. Transplantation of neoplasm irradiated *in vivo* is less successful when delayed following irradiation as contrasted with neoplasms which are transferred immediately after irradiation.[15]
4. More favorable clinical results have been observed when irradiation produced changes in the stroma of a malignant neoplasm.[12]

The Grahams and associates found that the changes in benign irradiated squamous cells in vaginal smears provided an excellent guide to radiocurability.[3,4] In their series, the five-year survival of women with cervical cancer was much greater when the majority of the benign cells exhibited vacuolization, enlargement, multinucleation, and nuclear changes during irradiation. They concluded that this radiation response ("R-R") reflected either a mutual radiosensitivity of the benign and malignant tissue or the indirect effect of irradiation.

The Grahams also noted a peculiar type of benign cell in the pre-treatment vaginal smears of women who responded well to x-ray or radium treatment.[2] This phenomenon, "S-R" sensitization response, was found in 30 per cent of invasive cervical cancers but in only 7 per cent of the *in situ* carcinomas, and is believed to indicate an important host reaction to the cancer. We have found "R-R" but not "S-R" in oral smears of patients receiving x-ray or cobalt irradiation for carcinomas of the oral cavity or oropharynx.

The Grahams are so convinced of the reliability of these cytologic observations that they have recommended surgical treatment instead of radiotherapy when possible for those patients who exhibit poor "R-R" or "S-R." They also suggested that patients who exhibited marked cytologic response were more likely to develop complications of irradiation.[2] It remains to be determined if poor reactors can be given excessive dosages of irradiation with safety. The possible use of substances which increase radiosensitivity in experimental animals is intriguing.[16,17]

Prediction of Metastases

Anaplastic neoplasms are more prone to metastasize than are well differentiated cancers, but while this is statistically valid in analyses of large series, it is not reliable in the evaluation of individual patients.

Graham[4] noted a great difference in the neoplastic cell populations in vaginal smears from cervical carcinomas of similar clinical stages. Cases with abundant exfoliation showed a high incidence of metastases. Preliminary observations in oral cancers have supported this finding.[10] This phenomenon is probably the result of differences in intercellular cohesiveness. Thus, tumors with little cohesiveness may shed cells more readily not only from the surface but also into draining lymphatics and blood vessels. If further observations confirm this association, a patient whose neoplasm exhibits marked exfoliation may be a candidate for "prophylactic" lymph node dissection or irradiation of node-bearing areas.

Criteria of "Cure"

During the late stages of treatment, vaginal and oral smears show a decrease or complete absence of malignant cells. Vaginal smears are usually negative by the end of treatment, but a majority of patients with oral carcinomas still have positive smears. Positive smears at the completion of treatment do not preclude the possibility of radiocurability. The Grahams[4] found that the five-year survival of a group of women who still had positive smears compared favorably with those whose smears were negative at that time. In irradiated oral carcinomas the smears often became negative several weeks following completion of treatment. Such conversions occurred up to four weeks after treatment, but smears which were positive at that time remained so thereafter.[10]

Occasionally, it is difficult to determine clinically whether or not a tumor has been destroyed by irradiation. A residual ulcer or thickening may be residual tumor or merely inflammatory induration. Interpretation of biopsy material may be equivocal. Persistence of malignant cells in post-radiation smears indicates failure to control the primary neoplasm, but negative smears do not rule out this possibility. False negative smears may be due to residual tumor beneath an intact mucosa or beneath a thick crust of necrotic

material, or may be due to poor technique in obtaining the smears.

Smears may also be used for the detection of recurrent neoplasm. Occasionally positive smears will indicate a recurrence before it is suspected clinically.

Summary

Examination of benign and malignant squamous cells in oral or vaginal smears taken prior to, during, and after irradiation provides valuable information relative to:

1. Microscopic grading of neoplasms;
2. Radiosensitivity of neoplasms and host tissue;
3. Radiation induced maturation of squamous cell carcinomas;
4. Persistence or recurrence of cancer.

This modality may be valuable in predicting irradiation failure, hypersensitivity to radiation, predisposition to metastases, or the quality of the reaction of host tissues (indirect irradiation effect).

In the event that the use of radiation sensitizing agents becomes practical, cytologic studies will probably be indispensable in determining the need for such agents and in controlling dosage.

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Filtration and Collimation Reduce Stray Radiation in Urography

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MANY of the hazards of continued exposure to small amounts of radiation have been known for a long time, but only recent popularization of this subject has awakened some radiation users to possible long term dangers to themselves and others. As a result of this awakened interest, many papers on protection during roentgenographic procedures have appeared in the journals.[1-6] Relatively few, however, have considered the hazards of urologic roentgenography.[7-9,16] This report demonstrates that two changes, increased filtration and better collimation, can be inexpensively incorporated into any equipment to reduce the amount of stray and primary radiation to urological personnel and to the patient. Simplicity, economy, and results preclude procrastination in making such changes.

A phantom made by filling a 30 x 60 centimeter aquarium with water to a height of 20 centimeters was used to simulate the scattering and absorption conditions obtained with a patient. The data of Table I represents the average value obtained from three Victoreen model 362 pocket ionization chambers (minometers) placed about each of the positions indicated in Figures 1 and 2. Measurements were made under three conditions: (1) unfiltered beam (inherent filtration of 1 mm. of aluminum) and wide open circular port, (2) 1 mm. of aluminum added filter and a rectangular lead aperture which restricted the beam to the area of a 14 x 17 inch film placed 40 inches from the target, (3) 2 mm. of aluminum added filter with the rectangular aperture.

Referring to Table I, it may be observed that the data of column 1, positions 3 and 6, appear incompatible. This is explained by the fact that the chambers at position 6 are shielded from the direct radiation by the water of the phantom, while a small portion of the chambers at position 3 are in the direct beam. Positions 2 and 4 are equidistant from the x-ray beam axis, but the values at these positions are different by a factor of 3 to 4. This apparent inconsistency can be explained by the differences in water absorption and in the field shape. It is apparent from the data of positions 1, 2, 4, and 5 that the stray radiation 18 to 20 inches from the beam axis can be reduced about 40 per cent through the incorporation of these simple changes. At positions such as position 3, which should not be occupied by urological personnel, the stray radiation is reduced by a factor greater than 10.

TABLE I. SUMMARY OF DATA

Filter Aperture	None No	1 mm. Al. Yes	2 mm. Al. Yes
Positions	Milliroentgens per 10 Exposures		
1*	7	3	5
2	8	6	7
3	640	58	47
4	30	19	17
5	36	20	20
6	410	270	290

*All positions are level with the table top except position 4 which is 12 inches below the table top level.
Exposure conditions: 74 KV, 200 MA, 0.5 seconds, target film distance 40 inches.

When using the circular aperture provided in the tube housing, the area irradiated is 3½ times greater than when a rectangular aperture is employed to limit the beam only to the area of a 14 x 17 inch film. Not only does the rectangular beam reduce the stray radiation, but it also reduces the primary beam integral dose to the patient—an important factor. It should be noted, however, that the decrease in patient integral dose is not in an 1:1 ratio to the 3½ times decrease in area achieved by the rectangular aperture.

For various reasons,* care must be used in interpreting or extending the absolute data presented in Table I. This data is valuable, however, because it demonstrates with reasonable accuracy the relative

*Both minimum detectable deflection and unstable zero setting contribute to the inherent error of each minometer reading resulting in reading errors for the data of positions 5 and 6 which may be as much as 40 per cent of the value. Except where the intensity prohibited it, ten exposures were given in succession in an attempt to reduce these errors. Separate tests indicated that saturation was not a factor for readings less than 50 mr. per exposure. In addition to the errors occurring from variations in chamber position, zero drift and imperfect phantom, separate tests by others indicate that the rapidly decreasing sensitivity of these chambers below 74 KV also introduces errors.[6,10,11] Yet this data agrees with that of Weens et al.[16]

improvement in the amount of stray radiation after two simple changes in equipment.

While theoretically the use of filters to reduce patient dose is a well established procedure, in practice it is too often ignored because it is bothersome to make a change in technique which may be detrimental to film quality. It is well known that film contrast and patient dose decrease with increased filtration; but it has also been shown that up to a half value layer of three millimeters of aluminum, the decrease in contrast is small while the reduction in patient dosage and scattered radiation is large.[6,12] Three millimeters total filtration (obtained by adding 1 to 2 millimeters of aluminum filtration depending upon the equipment) appears to be a good compromise between too little and too much filter, is in good agreement with state regulations[13] and national codes,[14] and appears to be wise relative to patient and personnel protection.

New or recently purchased equipment does not necessarily conform to these specifications; for example, the cystoscopy equipment of this survey was

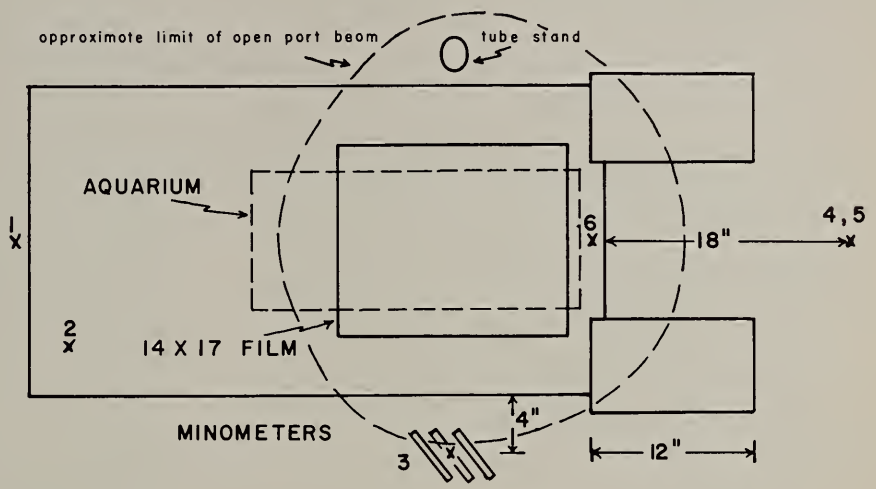

Fig. 1. In this schematic top view of the urology table, the open port beam is unsymmetrical, as indicated, and the collimated beam coincides with the area marked 14 x 17 film. Measurements were made at the positions numbered from 1 to 6 with Victoreen pocket ionization chambers which were distributed about each point as indicated at position 3.

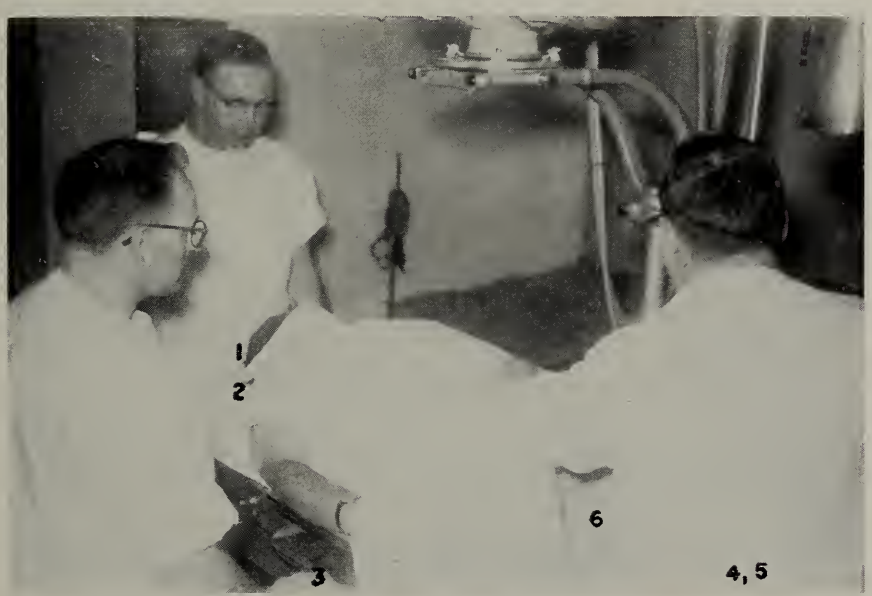

Fig. 2. The approximate location of the measurement positions which are given in Figure 1 are indicated on this photograph of the urologist, anesthetist and x-ray technician.

purchased in 1957. Since Gorson and Lieberman demonstrated that an excessively high percentage of the equipment in use fails to meet latest specifications,[15] prudence dictates that one should assume that their equipment does not meet these specifications and test it accordingly.

Summary

Utilizing a rectangular lead aperture and added filtration to reduce stray radiation and patient dosage during urographic procedures is not too expensive, too complicated, or too bothersome to be accepted by the urologist and does not materially alter film quality. This report confirms that a considerable reduction in the exposure of all urological personnel and the patient occurs after incorporation of these changes. It is a rare instance when so much may be accomplished by so little.

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Annual Report on Diseases in Michigan

Diphtheria and typhoid fever cases dropped to all-time lows in Michigan in 1959 but whooping cough, hepatitis and scarlet fever increased slightly, the Michigan Department of Health reports.

Only three diphtheria cases were reported in Michigan last year. The all-time high was 12,075 cases in 1921.

Typhoid fever caused only eight cases of illness in 1959, compared with the previous low of twelve cases in 1957 and the all-time high of 5,122 cases in 1900.

For the twelfth straight year, no smallpox cases were reported in Michigan in 1959. The disease hit its all-time high of 7,086 cases in 1902.

Whooping cough cases last year totaled 3,001, compared with the 1958 total of 1,233, which was the all-time low for Michigan. The all-time high was 16,512 cases in 1941.

Hepatitis cases last year totaled 1,136, compared with 688 in 1958. The all-time high since the disease became reportable in 1945 was 1,419 cases in 1954 and the all-time low was nine cases in 1948.

Scarlet fever was up in 1959 to 9,452 cases, compared with 5,380 in 1958. The all-time high of 24,798 cases was recorded in 1937.

Paralytic polio accounted for 145 cases in 1959, compared with 557 in 1958 and the low since vaccine became available.

Tuberculosis dropped in 1959 to 5,045 cases, the second lowest twelve-month total in the last thirty years. Lowest year in these three decades was 1957 with 5,011 cases. Tuberculosis cases in 1958 totaled 5,658.

Experience with Total Colonoscopy in Fifty Patients

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THE VALUE of colotomy and colonoscopy for direct visualization of the colonic mucosa in detecting unsuspected lesions[1] has been adequately proven. It is the purpose of this paper to present some of the experience at this clinic with total colonoscopy performed over a three-year period from 1955 through 1958.

Material

The study represents a review of fifty selected cases in which the following criteria were used:

1. Only those patients in whom the entire colonic mucosa was adequately examined were included.
2. All patients in whom colonoscopy was undertaken in conjunction with resection of a preoperatively diagnosed adenocarcinoma were excluded.
3. Patients in whom there was roentgenographic evidence of multiple polyps were not included.

For the purpose of evaluation, the colon was divided into four areas: cecum and ascending colon, transverse colon, descending colon, and sigmoid colon. All polyps for which the operative procedure was primarily undertaken were termed "target" polyps. Additional polyps found by total colonoscopy were designated "dividend" polyps.

Roentgenographic Findings

Roentgenographic examination of the colon following barium enema was performed on every patient. Confirmatory examination with air contrast study was done at least once in every case. The preoperative roentgenograms revealed a grand total of fifty nine target polyps. Figure 1 shows the distribution in the four selected divisions of the colon. Two or three polyps occurred as a cluster in several individuals. In no instance was a lesion identified in the cecum or ascending colon on x-ray examination.

Surgical Technique

The technique[1] of total colonoscopy has been described elsewhere. A sterile sigmoidoscope was passed as far as possible in both directions through as many openings in the colon as necessary. Care was taken to insure that the limit of examination achieved in one direction was overlapped from the opposite

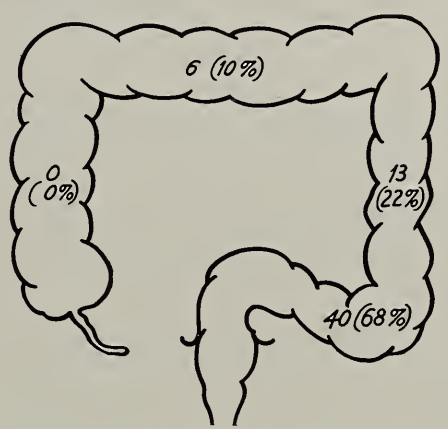

Fig. 1. Anatomical distribution of target polyps diagnosed radiographically.

direction. The entire colon (excluding the rectum) was examined and the removal of all polyps accomplished in sixteen patients through two openings in the bowel. In thirty patients, three colotomies were required. Four enterotomies in four patients were necessary.

Large polyps were removed through colotomy adjacent or opposite the polyp. Small polyps were excised through the sigmoidoscope with sharp forceps or snare and the bases fulgurated.

Surgical Findings

Dividend polyps were discovered in twenty-nine patients or in 58 per cent of the series. The number of these polyps varied from one to fourteen per patient, and on the average one to three were present. Ninety-two unsuspected polyps were removed. Dividend polyps exceeded the total of target polyps almost two to one. Distribution of the dividend lesions in the four divisions of the colon is shown in Figure 2. The anatomical location varied little from that of the target polyps. The majority of both occurred in the left colon. The eleven adenomas in the cecum and

Read at the Michigan Chapter of the American College of Surgeons meeting in Detroit, March 10, 1959.

ascending colon were found in five patients with co-existing polyps in the transverse and left colon. No lesions occurred only in the right colon.

Six segmental resections were performed for either

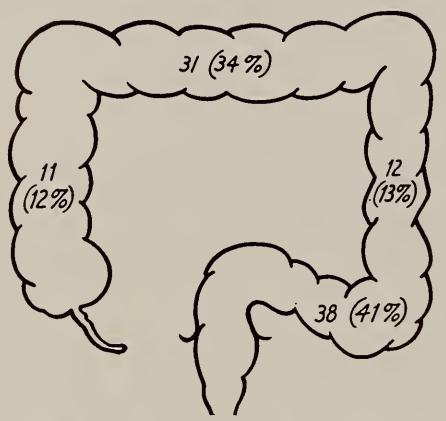

Fig. 2. Anatomical distribution of dividend polyps found by total colonoscopy.

villous adenomas or multiple polyps confined to one segment of colonic mucosa. Location of all polyps excised per patient is shown in Table I.

TABLE I. DISTRIBUTION OF ALL POLYPS FOUND ON TOTAL COLONOSCOPY PER PATIENT

Location	Patient	Per Cent
Left colon only	30	60
Left and transverse colon combined	11	22
Left, transverse and ascending colon combined	5	10
Transverse colon only	4	8
Ascending colon only	0	0

Pathological Findings

The pathological findings are summarized in Table II. Eleven per cent of the lesions showed carcinoma in various stages. Two of the dividend polyps contained carcinoma and would have been overlooked in the absence of total colonoscopy. Size of the polyps varied from 0.2 cm. to 4.5 cm. in greatest diameter. The smallest target adenoma was 0.6 cm. in diameter. The largest dividend polyp measured 1.5 cm. and was located in the descending colon just below the splenic flexure. Forty-five per cent of all the lesions were greater than 1.0 cm. in diameter. The two infected adenomas occurred in two six-year-old boys.

Complications

The complications are listed in Table III and are self-explanatory. The one case of intestinal obstruction required surgical intervention. This patient had many adhesions from previous abdominal surgery. Indwelling catheter drainage of the urinary bladder was used in all but two patients, and acute cystitis occurred in four. There were no deaths. The average hospital stay was thirteen days including preoperative preparations.

Discussion

Roentgenographic examination of the colon using barium and air contrast studies has obvious limitations in diagnostic completeness when polyps are present. Polyps in the cecum and ascending colon are extremely difficult to demonstrate. Palpation through the intact colon is not a reliable method of detecting unsuspected lesions. In this selected series

TABLE II. PATHOLOGICAL FINDINGS

Pathology	Number	Per Cent
Adenoma	134	
Infected pedunculated adenoma	2	89
Carcinoma *in situ* in a diffuse papillary adenoma	3	
Carcinoma *in situ* in a pedunculated adenoma	6	
Adenocarcinoma in a pedunculated adenoma	7	
Adenocarcinoma in a pedunculated adenoma with invasion of the stalk	1	11

additional (dividend) polyps were discovered in 58 per cent of the patients. In 60 per cent of the patients all of the polyps found were in the left colon only (Table I). Eleven per cent of the lesions showed some degree of malignancy, and in no instance was there a preoperative diagnosis of carcinoma. These figures do not justify anything less than total colonoscopy at the time of transcolonic polypectomy.

The procedure of multiple colotomy and total colonoscopy is the most positive method of examining the colonic mucosa. In the well-prepared bowel, adequate visualization and polypectomy can be accomplished with little difficulty and minimum morbidity. Local excision of adenomas is usually possible. Segmental resection should be carried out whenever indicated by the size or character of the lesion. Multiple polyps (not multiple polyposis) were treated conservatively using local excision and, in three patients, segmental resection. To date, none of the three-year follow-ups has developed adenocarcinoma or recurrent adenomas.

TABLE III. COMPLICATIONS (50 PATIENTS AND SIX SEGMENTAL RESECTIONS)

Deaths	0
Intestinal obstruction (mechanical)	1
Ileus	4
Cystitis	4
Atelectasis	1
Peritonitis	5
Thrombophlebitis	1
Other	0

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Some Biological Considerations in Chronic Disease

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A HIGH DEGREE of control has now been attained for most of those relatively acute diseases which are initiated primarily by single exogenous agents. This leaves as the major problem for future medical research the analysis, control and prevention of diseases commonly designated as chronic or constitutional.

In such diseases the biological background of the individual, which is roughly definable as the genetic influence, is bound to be a factor of unquestioned importance. Such influences are the major factor in determining the degree and type of host resistance to these diseases.

It is important to recognize that, in the vast majority of cases, the genetic influence is not a simple and easily definable factor. It is complex and is affected by the developmental history of the individual. It is, therefore, difficult of accurate recognition, measurement and analysis. In spite of the difficulties, however, future research will demand that we obtain much more knowledge than now exists before the conquest of these diseases can be expected.

There are many methods of research which are available to us at present. The consideration of some of these, with a recognition of their limits and possibilities, is desirable.

Epidemiological studies involving statistical methods are, perhaps, the most popular and most readily available type of analysis now being practiced. Among these, consideration of the actual death rate per 100,000 at any particular time is often used. Death rates are commonly divided by sex, race and age. Consideration of them over a series of successive decades gives rough indications of increase or decrease in the absolute death rates. Many factors, however, serve to complicate such data and require that their use be limited to providing suggestive and stimulating leads rather than for final or conclusive analysis and interpretation.

Some of the variables which cannot be controlled at the present time are changes in specific causal agents, accuracy of diagnosis, effectiveness of therapy, accuracy and completeness of records, and changes in the genetic susceptibility of individuals comprising the population.

Three other statistical methods of tabulating data on death rates are interesting and of some value:

1. The establishment of the rates of increase or decrease in death rates in successive older age groups.
2. The employment of cohort analysis, which follows throughout its life span a population born at a certain date or within a certain period.
3. In the case of cancer, the relative percentage of total cancer deaths attributed to cancer of specified sites and types at successive age periods.

Each of these methods has value, but none of them has total competency. Statistical data may, therefore, be advantageously used provided the investigator realizes that the observations on which these data are based are, at present, relatively indirect and must be clearly separated from direct experimental or clinical methods.

The incompleteness of our present knowledge concerning the origin of chronic or constitutional diseases is striking. There is no short cut to solving this problem.

Man is quite willing to submit for examination and testing the machines which he uses in his daily life. By so doing, he increases his chance of preventing mechanical disorders and of recognizing those which may appear at their earliest stages. He does not do this habitually for his own body or mind. He still resents efforts to invade the privacy of his physiology or psychology as interference with his liberty and

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independence, and, by so doing, he increases the probability that incipient disorders in either of them may escape observation until they become critical.

The medical profession is completely occupied and, in fact, is overburdened with caring for such crises. It is not to be expected or asked that it add this new and difficult problem of organizing and maintaining studies of normal human beings to its already full schedule.

The situation is closely parallel to the overburdening of registered nurses by demands for critical, hospital care, and the resulting development of practical nurses or nurses' aides to handle the less critical phases of the problem.

What is needed today is the training and employment of great numbers of biologists and biochemists who will devote their research efforts to studies of human biology on essentially "normal" human beings. These scientists should be completely sympathetic to medicine and medical research and should, in turn, be welcomed by those in the medical fields.

Because captive populations of humans, in which longitudinal studies may be made throughout the life span or major fractions thereof, are essential to this research, surveys of the existence of these populations and of the possibilities for their utilization should be made without delay.

Among these populations may be listed the human twins, both identical and non-identical, which exist in the United States and which are being studied for various purposes at scattered institutions. The correlation and co-ordination of such scattered studies should be accomplished as rapidly as possible in order to facilitate the exchange of information, and to insure the maximum use scientifically of this somewhat rare and extremely interesting material.

A recent discovery by Dr. Charity Waymouth at the Jackson Laboratory has also opened up a whole new field of experimental study and of potential analysis of human tissue. This discovery is the development of a completely synthetic medium for growing cells outside of the body. The controllability of experimental conditions is thereby tremendously increased. This, in turn, means that the relative values and functions of different chemical components in cells and tissues may now be accessible to observation to an infinitely greater degree than ever before.

In considering future research on the chronic and constitutional diseases, the values and limitations of two other fields of activity should be mentioned. The first of these, animal experimentation, has distinct value. Its order of applicability is, however, closely similar to that of statistics. The transfer of results from animals to man is a matter of great delicacy and requires extreme caution. There are on record many cases where transfer of results has been justified and has led to great advances in clinical medicine. There have been other cases in which the reaction of animals and of man are quite distinct from one another. Between the two extremes there are various shades and levels of resemblance. Each animal result must be defined and considered specifically in relation to the material and experimental conditions under which it is obtained.

A second important field is that of tissue pathology. This discipline has provided important information on the nature of disease over many decades. There is sometimes a tendency, however, to use the prepared and fixed material as observed under the microscope in predicting or explaining what may have happened within the individual before death and the availability of the tissue for study. This is not a direct observational activity and must be evaluated in somewhat the same way that the indirect evidence of statistics and of animal experimentation are considered.

To sum up, we are on the threshold of a tremendous development in the relationship between clinical medicine and human biology. The sympathy and moral support given by the medical profession to efforts to establish and maintain sources of research on human beings before disease reaches critical dimensions are factors of tremendous importance. With such sympathy and support we may expect the most rapid and effective development of this new era in science. Without them, there will be delay, inefficiency and possible failure.

This is why, no matter how busy the clinician or medical researcher may be, the acceptance and activation of the new development must be encouraged by him.

The partnership, which has been mentioned, is the means to eventual conquest of the greatest killers of mankind.

Diagnosis of Lesions of the Uterine Cervix

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ADEQUATE diagnosis of most lesions of the cervix can be made with simple equipment and a minimum of time. To guard against errors of commission or ommision, however, examination must be carried out and in some kind of order. The occasional female patient still escapes having a pelvic examination as part of a general physical check-up, but this is probably not as frequent since the advent of the Papanicolaou or cervical spread which so many patients who see doctors now ask for. Our chief trouble now seems to be the patient who through modesty or inertia has never seen a doctor nor asked for anything.

As a matter of fact, obtaining the cervical spread is in these days the first order of business in doing pelvic examination. As you know, the speculum is inserted with minimal or no lubrication before any trauma of the cervix. A further advantage of this way of doing is that the cervix is inspected which is most important from the standpoint of detecting eversions and many of the smaller polyps which may be missed by palpation alone. Benign looking cervical polyps without associated bleeding or other disease are removed in the office. If the spread proves negative, sometimes to save expense to the patient, they are not sent in for section since the price of pathological examination was advanced locally in Ohio some time ago. This is probably not to be recommended as good practice. Polyps that look difficult to remove or that are associated with any type of abnormal bleeding are removed in the hospital and investigation of the uterine cavity and cervix carried out by curettage and biopsy.

Leukoplakia which, of course, is a relatively rare lesion on the cervix is always biopsied regardless of the cervical spread report. Cervical erosions or eversions of the small size and without symptoms may be allowed to remain, in my opinion, if the spread is negative or, if the patient wishes, office cauterization is carried out at the second visit which is arranged post menstrually.

However, any erosion which is of any consequence, is producing vaginal discharge and is to be cauterized, should be biopsied regardless of the cytology spread. This is usually done in the hospital. For what help it may be, the cervix is coated with 7 per cent iodine to guide the biopsy sites.

No experience in the colposcope has been obtained, or in other words, it is not used much locally.

Being a detection and not a definite diagnostic method, cervical spreads are obtained on all new patients and on old ones once a year or oftener. Anything less, destroys the detection value of the spread. In other words, making it selective is not overall detection. Since patients obtain these tests now here, there and elsewhere, it is usually wise to inquire of new patients especially, if they have had a recent spread to avoid needless expense. It is also probably wise to find out, if possible, where it was read. Parity is more important than age. Exceptions are made only in the non-parous very young woman. Our cytologist suggests routine aspiration of cervical mucus with a second slide with material obtained by scraping the cervix with a wooden spatula. Only in the post menopausal woman in whom no cervical mucus may be obtained is a spread from the vaginal pool of any value to him and this only occasionally for picking up cells from the endometrial cavity. Detection by these means is 60 to 80 per cent in carcinoma of the corpus and almost 100 per cent in cervical lesions outside already full blown necrotic carcinoma which because

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of degenerated cells may go undetected by this method but, of course, is obvious on physical examination.

Before considering some of the findings turned up by cervical spreads, it seems important to say a word about patient communication with this method of diagnosis. It is my conviction that reports should not be sent directly to patients any more than copies of x-ray reports are made available to them. Frequent extraneous details, such as "Trichomonads seen" serve only to confuse and excite apprehension. Generally the patient is told that if there is anything pertinent about the report from the laboratory she may depend upon you to so inform her and arrange for a repeat spread or whatever is indicated. If the report is negative, no telephoning is done as a rule, but the result becomes a part of her record and she may assume it is negative unless informed.

As intimated above, new problems of a social and psychological nature have cropped up both for the doctor and the patient since the more frequent use of this detection measure. Leading up to these problems are the patients without symptoms or signs, often with a normal looking cervix, who are shedding abnormal cells. Many of these spreads are Type III or the suspicious variety reported locally as mild, moderate, or marked dysplasia, or simply as "abnormal cells." In a group of 536 cases of Type III smears recently reported at the Association meeting by J. Edward Hall of the University of New York, 291 proved to have benign lesions often associated with infection of cervix or vagina. There were thirty-two unsuspected malignant epithelial changes, 75 per cent of which were intraepithelial carcinoma. Whether the cervix looks normal or not, the question of biopsy and/or conization and further definitive treatment comes up. I can never escape the feeling that in this group, without symptoms or signs, the individual patient must often feel she is being sold a bill of goods. However, in a referred practice most of the situations have had the referring physician mixed up in the extensive explanation often required.

In our experience, the chief psychological hazard arises when the biopsy, either punch or cone, does not conform with the cytological findings and a repeat biopsy later on, or further frequent spreads are necessary for adequate follow-up. I guess any of us, if we were patients, would like to get off the hook one way or another on such a question. The patient does not understand that even with a carcinoma *in situ*, she usually has some four or more years for invasive cancer to develop, or she may never develop it. I remember one patient of another doctor whose biopsies were negative but whose spreads continued to show a marked dysplasia or actual carcinoma *in situ*. She made the remark when she came to see me, "Doctor, I've simply lived for six months from one abnormal smear to another." Having completed her family, hysterectomy was carried out without too much further ado, and the epithelial changes were found high in the cervical canal which, as you know, is a frequent site for carcinoma *in situ*. This for psychological reasons is one of the rare exceptions to confirmation by biopsy.

A second patient who was a clinic patient with marked dysplasia was biopsied so many times during and after her almost constant pregnancies that the services of a psychiatrist were eventually necessary to straighten her out. This might be called more science than common sense.

Cold knife conization is done on some cervices without external lesion or in which punch biopsies have not demonstrated the lesion. This operation leaves something to be desired. Some time ago when trachelorraphies were frequently done, the danger of early bleeding, or of bleeding around the tenth day were well recognized. Most surgeons felt that the cervix should be sewed up with the heaviest catgut available. Now we blithely cut a cone out of the cervix and except for light fulgeration leave it alone. Cold knife cones bleed and anybody that hasn't had one hasn't obtained many good cones, or has had phenomenally good luck. If canal sutures are put in, the risks of stenosis are real. External sutures designed to ligate the cervical branches of the uterine vessels may help decrease this complication.

If an invasive carcinoma is encountered, it is frequently cut through. One doesn't obtain a diagnosis of a lump on the breast by cutting through it and therefore it would seem that some day we should have a better method of cervical management. There is an impression not yet supported by any facts that I know of, that invasive cervical carcinoma that has been coned out does not do well when treated by radium and x-ray. When possible to establish a diagnosis without it I think it is better to avoid cold knife conization, but I haven't anything better to suggest when it is necessary.

Another improvement we need is a better and simpler method for predicting and determining the radiosensitivity of a tumor. Obviously this should be done before treatment, if by biopsy, and not after radiation is carried out. Disturbance of the radiated cervix by any cutting operation is to be avoided. Ruth Graham has worked for years on this problem. The

chief objection to her ideas and methods may be that they are very difficult to transmit to another individual. Connected with her concept of S-R or radiation sensitivity are appraisals of histiocytes denoting inflammatory reaction or lack of it, an appraisal of estrogen activity from the relative numbers of cornified cells, and particularly an evaluation of the sensitivity of exfoliated cells. Perhaps it is the latter part of the concept which is difficult for other cytologists to evaluate. The evaluation of R-R or radiation response has likewise been difficult to master.

In our institution, Dr. James Reagan, from the spreads and initial biopsy, has correlated survival rates with cell types and has come up with a slightly different system of grading carcinoma, but one still based on keratinization of the cell. His conclusions briefly are as follows: "On the basis of cellular and histopathological evidence, cancers of the uterine cervix were subdivided into a large cell nonkeratinizing type, a keratinizing cancer, and a small cell malignant tumor. The small cell cancer was associated with the lowest rate of survival, while the large cell nonkeratinizing carcinoma was characterized by the highest rate of survival. The keratinizing cancer was found to be intermediate."

This system, if it stands the test of time, is easy to follow by those of us who are pathologists by avocation but not cytologists, and contains no mysterious elements.

In conclusion, a review of some cervical lesions and methods of diagnosis has been given in the never ending effort and hope that full blown cancer of the cervix may be eliminated eventually if not yet.

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Offer Narcotic Control Advice

Physicians across the nation often report that they are duped by narcotic addicts who come to their offices and give hardluck stories hoping to obtain a narcotic prescription. The Narcotic Control Section of the Pennsylvania Department of Health has developed excellent advice for the physicians who use narcotics in their practice.

Among the many pointers given are the following:

1. Don't leave prescription pads around—They're handy for forgeries.

2. Don't leave your physician's bag in an unlocked car—Lock it in the trunk or carry it with you.

3. Don't prescribe narcotics on the story that another doctor has been doing it—Check with the physician or the hospital records.

4. Don't leave blank Rx's signed in your office for nurses to fill in—Many such blanks have been stolen and used.

5. Don't give an unused prescription blank to anyone, without first marking VOID across its face—It may turn up as a forged prescription.

6. Don't fail to give your patient a physical examination before prescribing narcotics—Agreeing with a patient's story is not a diagnosis.

7. Don't write Rx's in the names of patients or relatives to obtain narcotics for your office use—This is a violation of the law.

8. Don't fail to be as careful in the prescribing of narcotics for your patients in a hospital as you would be if they were obtaining Rx's from you in your office—Addiction has been caused by excessive amounts of narcotics received in hospitals.

9. Don't treat any ambulatory cases of addiction. Addicts must be under proper control—Addicts often go to more than one doctor at a time.

10. Don't fail to have a special narcotic tax stamp for each office or location where you practice—Failure may result in a fine.

Pathology and Rudolf Virchow

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THE NINETEENTH cenutry will stand out in the history of the world as the Golden Age of Science. The spirit of progress so long held back by the awful pall of the dark ages, so stifled by tyrannical ecclesiastical authority, so chained to many of the groundless beliefs and half-truths of Galen and his more ancient predecessors, seems to have precipitated itself into this age, into a multitude of rivers of genius—all flowing into a mighty sea of truth and scientific discovery. Darwin, Pasteur, Virchow, Koch, Conheim, Henle, Metchnikoff—these are only a few of the galaxy of stars set in the firmament of science from this age. Today, instead of the theorizing rationalism and arbitrary empiricism so characteristic of the past, there has dawned a new era in science, an era of experimental medicine, an era of the microscope, the test tube and the laboratory, an era of golden triumph.

Darwin revolutionized world thought with his *Origin of Species.* Pasteur established for all time the bacterial etiology of contagious diseases. And Rudolf Virchow, with whom we are presently concerned, created the new science of pathology. In doing so, he became the father of modern medicine. For in the words of William Osler, "The study of pathology within the past half century has done more to emancipate medicine from the routine and thralldom of authority than all the works of Hippocrates to Jenner." In the words of William H. Welch, "Virchow, the chief founder of modern scientific medicine, the highest glory in medicine of Germany and of our age will rank for all mankind and for all time to come as one of the greatest figures in science." We, of the present, know only too well that in order to understand the science and practice of medicine, rational therapeutics and the nature of disease itself, we must have a comprehensive knowledge of pathology and pathological processes. And this means a knowledge of the principles laid down by Rudolf Virchow.

In order to appreciate more fully the character of Virchow and the far-reaching consequences of his discoveries, it is necessary that we know something of the progress of pathology from the earliest times to the time of Rudolf Virchow. We appreciate the present only in relation to the past.

Orderly Progress

The progress of science is slow but sure. All discoveries are built on previous discoveries. One man builds on the work of another. And all is one continuous chain. There could have been no anatomy without dissection; no physiology without anatomy, and no pathology or therapeutics without physiology. Thus there had to be a Galen before a Vesalius. There had to be a Harvey before a Muller. There had to be a Pasteur before there could be a Koch. Bichat followed Morgagni. And Rudolf Virchow followed Bichat. Those alone are great who tear aside the veil from nature and fearlessly reveal for the use of man its hidden laws.

Disease was at first considered as the attack on the individual by demons or evil spirits—the demon of consumption, the demon of heart complaint, the demons of fever, et cetera. Hence we have the priestly character of the medical profession of those times. The early Greeks held that disease was due to the anger of the gods. Hippocrates and his subsequent hippocratic physicians developed the theory of the humors. Briefly stated this theory holds that the human body is composed of four humors: blood, phlegm, yellow bile and black bile. Health is the result of the harmonious mingling of these four humors, and disease is the result of the improper blending between the humors. For over twenty centuries, incredible as it may seem, the minds of men were swayed by this theory of humoral pathology in one form or another. It took Virchow, in the latter half of the nineteenth century, to dispel forever these fantastic ideas about disease and to substitute in its place the sane and important science of pathology that we know today. Rudolf Virchow's contribution to medicine and to science in general is a distinct creation.

Nations Isolated

At the beginning of the nineteenth century, pathology, and medicine in general, was still in a chaotic state. It did not have the international character it has today. Medicine in one country was one thing, and medicine in another country was another thing. The means of interchange of ideas, and medical journals, were few. In fact, medicine was distinctly national.

France held the leading position. Bichat laid the foundation of general anatomy by his studies of the tissues. He opened the way for the study and classification of morbid changes according to the tissues effected. Morgagni before him, emphasized the point that the purpose of pathological anatomy is not simply the collection of curious and interesting specimens. It is rather the teaching of the seats of disease. His great work, "*The Seats and Causes of Disease Studied Anatomically*" is today considered the first great work on pathology. But neither Morgagni nor Bichat went far enough. Morgagni studied only the microscopical changes; Bichat only substituted the tissues comprising the organs as the seats of morbid changes. For over fifty years no distinct advance was made in pathology in this direction. It fell upon Rudolf Virchow to teach us to go still further back than the tissues. He sought the seats of disease in the cells. He tapped the source. Thus, we have Morgagni placing the seats of disease in the organs; Bichat advancing and placing them in the tissues; and lastly, we have the master, Rudolf Virchow, progressing to the very fundament and placing them in the cells. Morgagni . . . Bichat . . . Rudolf Virchow. . .

In addition, such men as Bayle, Laennec, Dupuytren, Cruveilhier, Rostan, Bretonneau, Andral, Louis, Magendie, and many others placed French medical science far above the level of any other country. Nevertheless, false and exaggerated ideas about pathological anatomy still existed and led to the establishment of various schools of pathology and unfounded systems of medical doctrine. At the same time, the importance of experimental pathological physiology was not recognized.

The influence of John Hunter, the great investigator in pathology, existed in Great Britain. Rudolf Virchow and John Hunter were alike in many respects. Both men disregarded philosophical speculation and went back to nature and to direct observation. To them facts were the things on which to build doctrines. Both made use of all the allied sciences at their disposal. But what is more important, both recognized that pathological physiology was the foundation of scientific medicine. Anatomical investigations, clinical observation, experimental physiology—these were to form the basis of pathology. The time was soon to come when Virchow could build the foundations of scientific medicine deeper and stronger and broader.

In the third and fourth decades the great Vienna school of pathology came to the front with Rokitanski and Skoda as leaders. As a purely descriptive pathologist, Rokitanski is today considered the greatest who ever lived. But in the interpretation of morbid changes, he was an unfortunate failure. Still bound in the trammels of humoral pathology, he elaborated the well-known theory of the crases. With the advent of Virchow, it received destructive criticism and caused Rokitanski to repudiate his whole complicated system. The last death blow to humoral pathology had been dealt.

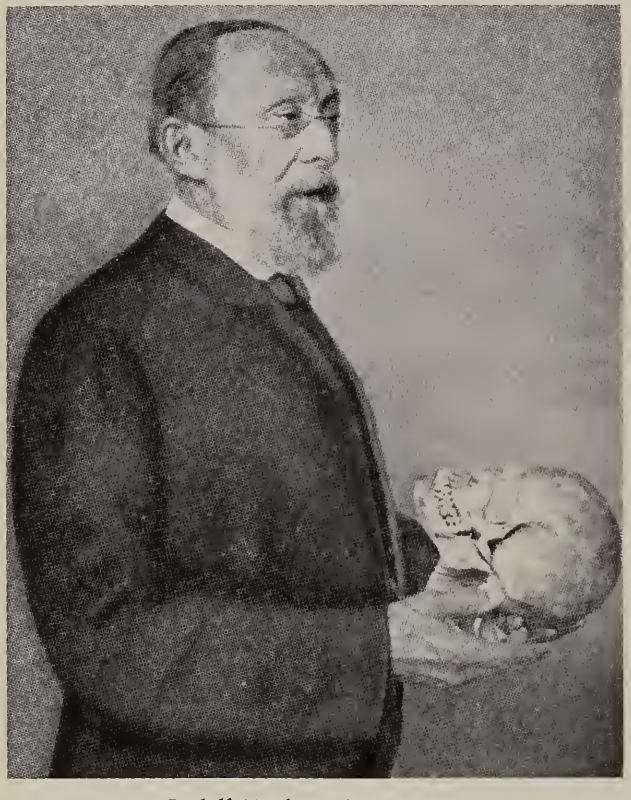
In Germany, there existed primarily a succession of systems and schools of doctrine, all based on speculation. The minds of physicians were occupied with such doctrines as Vitalism, Brownianism, Philosophy of Nature, *et cetera*. The controversy, centuries old, as to whether disease effects primarily the solids or the fluids was still kept up with unceasing effort. To Virchow, coming like a light into the darkness, only facts and experimentation were to form the admissible foundation of scientific medicine.

Immediately before Virchow began his career, important discoveries in microscopical anatomy were made. Johannes Muller published his work, "On the Intimate Structure and Forms of Morbid Tumors," and showed the fruits of the application of the microscope to the study of pathological anatomy. In the same year, following the discovery of the botanist, Schleiden, Schwann promulgated the cell theory. The fundamental error of Schwann, the origin of cells by spontaneous generation out of a primitive blastema, exerted for many years an unfortunate influence upon pathology, and many investigators were led to spend their time and efforts on impossibilities. The blastema theory for a time ruled in pathology. All pathological exudates were resolved into blastemata. The problem of the day was to determine the character of this blastemata, their metamorphosis, and the exact mode of formation of cells out of them. To these delusive problems microscopists set themselves to work. It took Pasteur to dispel forever the theory of spontaneous generation. It took Rudolf Virchow to establish the doctrine on which medical thought today revolves, "Omne Cellula e Cellula."

Virchow

This is the stage on which Rudolf Virchow first appeared.

Rudolf Virchow was born in the town of Schievelbein, in further Pomerania, on October 13, 1821. His father was the treasurer of the town and a man of some education. He met with understanding, all the difficulties which rose to oppose the eager humanistic ambitions of the son. Little is known of the childhood and youth of Virchow, except that he learned reading and writing from his father, and that he received private instruction. He entered the third class of the gymnasium at Koslin, May 1, 1835. He early showed an unusual aptitude for the sciences, his favorite studies being the natural sciences, history and geography. But he also studied the ancient classic writings of Cicero, Sallust and Sophocles. To these he devoted his spare hours, at the same time not neglecting to improve himself by reading French and German authors.



Rudolf Virchow (1821-1902)

At Easter time, 1839, at the age of seventeen years, Virchow passed first among eight students at the examinations. And in the autumn he entered as a student of medicine at the Koniglich Medizinisch-Chirurgische Friedrich Wilhelm's Institute at Berlin. He went through the regular course, but also found time for research. Some insight into the character of the future master of pathology may be derived from the fact that while studying medicine he heard the lectures on Arabic poetry and also studied Hebrew and Italian.

April 1, 1843, Virchow was appointed "Charite-Chirurgus," which corresponds to assistant physician. He entered immediately into practical work. He felt that he must still learn, and that a thorough scientific education was a necessity. He was not content, therefore, merely to follow on with his comrades. He chose his own course for himself.

On October 21, 1843, the degree of doctor of medicine was conferred on him by Johannes Muller for his work on the inflammation of the cornea.

And now begins a period of manifold activities, a period rich in scientific discovery and investigation, a glory in medicine. Experimenting, elaborating, lecturing in pathology, researching, writing on archaeology and anthropology, upholding the rights of the people in the Prussian Lower House, championing the cause of the oppressed, instituting sanitation in the City of Berlin, Virchow proved himself to be a veritable universal genius, original and independent.

On May 11, 1846, Virchow became an active demonstrator in anatomy. He had now the opportunity of developing his powers in his own way. He was entrusted with the chemical and microscopical investigations necessary for the sick wards. He immediately saw in a combination of chemical with anatomical researches the possibility of attaining an object of capital importance, the creation of a pathologic physiology.

Already in the same year Virchow had read before the Society of Scientific Medicine in Berlin, the paper entitled, "Concerning Points of View in Scientific Medicine." This paper is in a sense the program of the author, a statement of articles of faith, as it were. Here is emphasized the idea that disease is not an independent thing. It is life under changed conditions. Scientific medicine is the investigation of these changed conditions and of the means of removing them. The immediate task is to discard philosophical systems and to set to work in collecting facts. Here is the beginning of the emancipation of pathology and medicine.

Problems

The first problem that occupied Virchow's attention was phlebitis. Phlebitis at that time occupied an important place in pathology. It was believed that he

who could explain phlebitis and the associated phenomena could also explain all the pathological processes. Its importance may be gathered from Cruveilhier's famous sentence. "La Phlebite domine toute la Pathologic." So firmly established at that time was this Cruveilhier's doctrine and also the doctrine that the essence of inflammation is coagulation of the blood in the veins and capillaries, that it seemed only necessary to work out certain details such as whether or not in suppurative phlebitis the pus is secreted by the wall of the vein or by the wall of the arterial capillaries. To Virchow, bringing to his work a clear, unbiased mind, a Baconian attitude and a new mode of investigation, it soon became clear that these general doctrines were based on no sure grounds. Virchow began his investigations. He sought to know the reason for coagulation of the blood and the conditions which make for this coagulation both within and outside the body. The result was a series of fundamental papers on fibrin. Then followed the epoch-making studies on "Thrombosis and Embolism," "Septic Infection," "Arteritis," *et cetera*. These doctrines he elaborated, formed a new chapter in pathology. They stand complete and well rounded out, a monument of brilliant scientific investigation.

Simultaneous with the above investigations, Virchow was led to a study of the morphological elements of the blood. The result was "Leukemia" and the "Pathological Physiology of the Blood," in which he established the "leukemias" as primary diseases of the blood. These researches stand today the same as when he made them.

In 1848, the government sent Virchow to Upper Silesia to study the typhus fever epidemic. His report was considered a masterpiece containing close observations both of medical and social facts. His humanism, fired by the misery and oppression of the people in Silesia led to his early political efforts with which his participation in the Revolution of 1848 resulted in his dismissal from Berlin and his removal to Wurzburg. Here he made investigations of the cellular changes in Bright's disease, parenchymatous inflammation, inflammation of muscle, fungus infections, *et cetera*. Then there are investigations which have to do with "Formation of the Placenta," "Uterine Flexions," "Apoplexy in the Newly Born," "Cretinism," "Chancroids and Papillomata," and so on.

But the brightest lustre of Virchow's scientific work comes from those investigations which laid the foundations of cellular pathology. Already in 1854, Virchow had cast aside definitely the blastema theory of cell formation. From a host of observations and experiments, he became convinced as to the continuous propagation and proliferation of cells within the individual. He proved that life requires a special formation to manifest itself. It requires certain definite units. These units are the cells and their compounds. Disease is necessarily localized in these cells, being their reaction to the influence of external irritants. The laws working in disease then are not different from those working in health. They are rather subject to different conditions. This is the great biological principle that has stood the test of time.

Practically applied, cellular pathology is the foundation of all morbid processes. The human body is composed of organs. Organs are composed of tissues. Tissues are composed of cells. The cells, then, is the ultimate biological unit. It is the unit of structure and the unit of function. Every cell is more or less independent and has a life of its own. And the functions of the body are dependent upon the sum of the varied activities of the innumerable cell units of which the body is built up. Normally all the units work in physiologic harmony. If the conditions about the cell, the stimuli, physical, and chemical, are within normal limits, all the varying activities including: (1) nutrition, growth, maintenance, repair; (2) reproduction and (3) specialized function, maintain a proper balance. Health is the result. Let there be, however, anything at all which interferes with these functions, and we have a state of disease. And it is the individual cell that is the seat of the morbid processes.

What are the causes of disease?

1. Mechanical:
   - (a) Direct injury.
   - (b) Exposure to the action of injurious physical agencies—heat, cold, pressure, electricity, x-ray, and other forms of radioactivity.
   - (c) Bacteria.
2. Chemical:
   - (a) Inorganic poisons.
   - (b) Organic poisons.

Any one of these causes working on the cell will produce pathological changes. The result is disease.

What are the morbid changes produced by the above causes?

1. Degenerations and Infiltrations:
   - (a) Parenchymatous degeneration.
   - (b) Fatty degeneration and infiltration.

(c) Mucinoid degeneration.
(d) Waxy degeneration.
(e) Hyaline degeneration.
(f) Pigmentary degenerations.
(g) Calcification.

2. Atrophy.
3. Necrosis and Gangrene.
4. Circulatory disturbances:
   (a) Hyperemia.
   (b) Edema.
   (c) Thrombosis, Embolism and Infection.

The reactions to these causes are:

1. Inflammation and Repair:
   (a) Exudation.
   (b) Leukocytosis.
   (c) Phagocytosis.
2. Granulomata.
3. Tumors.

This is the General Pathology we know today—a broad principle which has become the foundation of Modern Medicine. Thus did Virchow's conception of cellular pathology become an integral part of medical thought. Pathology took its place among the other sciences as next to none in importance.

Brought back to Berlin in 1856 because of his great fame and reputation, Virchow occupied until his death, the chair of Pathological Anatomy and rendered it the most famous of its kind in Europe. At the very start Virchow secured from the Government the concession of a new pathological institute. This was to be constructed according to his own ideas and plans. Here at the Institute he taught hundreds and thousands, and educated the men who were to occupy the chairs of Pathological Anatomy in the other universities. Rudolph Mayer, Rindfleisch, Reeklinghausen, Bezold, Conheim, Klebs, Ponfick, and many others owe him their opportunities and their places. Not only through his own works does Virchow live, but also through the works of his famous pupils.

Cellular Pathology

Virchow's book, *Die Cellularpathologie*, is his most famous accomplishment. Of equal importance, however, are Virchow's three volumes of morbid tumors, *Die Krankhaften Geschwulste*. Here is a work considered by most pathologists today as one which might have filled the life time of a great student and thorough pathologist. Virchow taught that tumors, whether they are parasitic in origin or not are always portions of the body, and do not develop from some morbid humor of the organism, nor independently through some special force of their own substance. He held that tumors owe their origin as a rule to the less highly specialized tissues, to the connective tistues, and more particularly the epithelial tissues. He gave the first description of hematoma of the dura mater, and of glioma. He was the first to describe leontiasis ossea. He discovered the lymphatic sheaths of the cerebral arteries. He noted that wounds of the cornea repair without the presence of plastic exudations. He maintained that Peyer's patches are only lymphatic glands, and that in disease, they play a part comparable with that of axillary and inguinal glands. He set forth in detail the pathology of syphilis. He investigated tuberculosis, and established the relation to it of lupus. And he explained the forms of parenchymatous inflammation.

In addition, Virchow became the most famous anthropologist and archaeologist of his time, having published several books on both these subjects. In recognition he was made president of the Anthropological and Archaeological Society of Germany, serving many years.

Virchow's universal genius also expressed itself in his political career. At heart he was humanistic. Even in his early political efforts, which necessitated his removal to Wurzburg, he showed his sympathy with the oppressed mass of the people. He himself was born of the people, and he was a friend of the people. Elected city counsellor of Berlin in 1859, he served for forty-two years. As a member of the Sanitary Bureau, with its enormous sewage problem, he directed the establishment of immense sewage plants formed after such a plan that they have kept pace in adequateness with the tremendous growth of the city before the World War, at the same time defraying the expenses of their maintenance. Through his efforts Berlin had the reputation of being the most sanitary city in the world.

He was elected to the Prussian Diet in 1862 and served a constant succession of terms as a representative of the people of Berlin. He always sided with the party of progressive tendencies, and, in fact, was one of the founders of the Fortschrittspartei. He was one of the most prominent figures of the German Reichstag from 1880 to 1893. He was one of the most effective antagonists of the encroachments made on the constitution by the conservative party under cover of the royal prerogative. And Bismarck, "that Man of Blood and Iron," found no more persistent and conscientious adversary than Virchow through all his parliamentary career. He contributed to the literature on infectious animal diseases, and on fisheries. He participated in

numerous debates. He introduced the now famous term *Kulturkamp*, battle for culture. He lectured to workingmen's societies. He supervised the erection of public hospitals and the first barracks. He conducted the first sanitary train into France during the Franco-Prussian War, and he served as an officer in the army auxiliary societies centered in Berlin.

Thus was Virchow's whole life, a life of multiple activities. From the very beginning of his career to the time of his death he was ever busy with his labors. Be it in pathology, or archaeology, or parasitology, or politics, the sincerity and breadth of view, which was an integral part of him, always made him predominant. He lived to a ripe old age, and he was fortunate enough to enjoy the fruits of his labors, to see the principles which he promulgated gain acceptance, to feel the appreciation of the world. He was showered with honors. On his seventieth birthday and again on his eightieth birthday festivals were held all over the world in honor of this "Grand Old Man of Science." He was awarded the Copley Medal in England. He was made honorary member of numerous scientific societies all over the world. He was personally awarded a medal by the Emperor of Germany and congratulatory messages kept coming from physicians the world over.

These are little things. It is Virchow's works that are his great monuments. There is the Virchow Pathologic Museum, the most famous of its kind in the world. There is his *Cellular Pathology*. There are Virchow's *Archives*. There remains his work on tumors, embolism, thrombosis, parasites. Most important of all, he laid the foundations of modern scientific medicine. These are heritages he bequeathed to posterity. These are enduring monuments to an enduring name.

On January 1, 1902, Virchow accidentally sustained an intertrochanteric fracture of the neck of the femur. On September 5, 1902, he died of cardiac failure. On Tuesday, September 9, the Berlin municipality accorded him the honor of a public civic funeral. Virchow was buried at the Matthau-Kirchoff Cemetery, in the far west of Berlin.

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Detroit 2, Michigan

Disease Prevention

The program recently announced by the National Tuberculosis Association to wipe out tuberculosis in the United States by locating every person suffering from the disease and treating him with appropriate medication should soon add still another one-time killer to the long list of drug-eliminated ailments.

New medicines have made it possible for the medical profession to not only cut the death rate from tuberculosis, but to hope for its complete eradication as well. Since 1940, new advances in medicine have helped cut the death rate from tuberculosis from 45.9 of every 100,000 Americans to only seven per 100,000 in 1958.

The steep drop in less than twenty years is due primarily to the development of streptomycin by Dr. Selman Waksman of Rutgers University (backed by a substantial grant from a large pharmaceutical manufacturer).

But tuberculosis is only one of many diseases which have responded in a similar fashion to new medicines. Such once dreaded diseases as typhoid fever, diphtheria, mastoiditis, rheumatic fever, poliomyelitis, the venereal diseases and many others have lost their sting. Pneumonia and influenza take less than half the number of lives they took in 1940. Maternal deaths have dropped from almost forty per 10,000 live births in 1940 to four per 10,000 in 1958.

As these diseases have been defeated by new medicines, others have come to take their place.

The Doctor-Patient Relationship

Lewis L. Robbins, M.D.
Glen Oaks, New York

THE physician, in the course of his regular professional activities, does much that can be rightfully considered psychotherapeutic even though it is not ordinarily so labelled. All patients, regardless of the nature of their presenting complaints, have some anxiety and it is well known that many physical complaints are either substitutes for or concomitants of anxiety.

By attentively listening to the patient tell what is troubling him, by the care with which he inquires into the patient's history and by the thoroughness with which he examines the patient, the doctor strengthens the normal feeling of the patient that he is being competently treated, that he can be helped, and that he no longer has to struggle alone with his discomfort. Thus the patient usually derives support and reassurance from the beginning contact with the doctor even before a specific diagnosis is made and treatment prescribed.

Treatment itself must be preceded by accurate diagnosis which, in psychiatric cases particularly, must go beyond attaching the appropriate label to the illness. It is necessary to have an understanding of what it is the patient is reacting to at the time and in what way he is reacting (the dynamic diagnosis), as well as to understand something of the life history of the patient and its relation to the current problem (genetic diagnosis). A psychiatric diagnosis cannot be made by exclusion alone.

Following such an appraisal of the patient's problem, the physician is in a position to estimate the treatment goals and to ascertain whether or not he is professionally equipped to treat the patient or should refer him to a psychiatrist.

THE AUTHOR
Lewis L. Robbins, M.D.

Many patients derive great benefit from telling their troubles to someone who is willing to listen and will be accepting. "Getting it off one's chest" is a well known means of obtaining relief. In addition, the patient feels less alone, he may be able to achieve greater objectivity about himself, and through the experience of being able to talk, may become more generally spontaneous. The physician, by indicating that other people have similar problems and feelings, further decreases the sense of isolation, shame, and guilt which the patient may feel. Also, through carefully directed questions, the physician may help the patient achieve some understanding of his problems which, in turn, may lead him spontaneously to a solution. At times, the physician may indicate the way with sensible advice and guidance. Patients can often acquire some intellectual insight into the relationship between situations, affect, and symptoms and alter their situations, or their response, or both, in a healthier manner. The solution of surface conflicts can often restore peace of mind, and finding better modes of expression of one's feelings leads to greater ease.

The physician who is not trained in psychiatry should limit his attention to the patient's conscious feelings even though he may be aware of certain unconscious factors in the problem. He should also be aware that patients tend to endow him with attributes that he does not possess and have feelings of affection and anger for him that are unrelated and inappropriate to the doctor-patient relationship. Many patients look upon the doctor as a magical omnipotent father figure on whom they can become dependent and who will solve their problems for them. Flattering though this may be, the doctor must wisely avoid falling into this trap for sooner or later he will be unable to meet the patient's demands, his magic may fail to work, and the affection and cooperation may turn into anger and negativism. Such transference feelings, as they are called, are echoes

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From the Hillside Hospital, Glen Oaks, New York.
Presented at the 93rd annual session of the Michigan State Medical Society, Detroit, October 2, 1958.

of early childhood relationships in the life of the patient and are part of the patient's neurotic conflict and therefore need to be recognized as symptomatic of his illness.

It must also be appreciated that, although the patient is unhappy and wants help, another part of him resists giving up his symptoms. The symptom is there for a reason; it has a purpose and satisfies a certain craving of the patient's unconscious. Consequently, any effort to change it meets with opposition. This resistance to getting well may manifest itself in a great variety of ways. It may be hidden in the transference feelings of the patient, it may take the form of a "flight into health," the patient may miss his appointments, refuse to see his role in his difficulties attributing all his troubles to others, and so forth.

When the doctor becomes aware of the patient's resistance, he may become annoyed just as he may have been flattered by the patient's docile obedience. Such countertransference reactions as these (and others) are not only inappropriate but also undesirable. The physician must at all times maintain his objectivity if he is to be truly helpful.

The following suggestions for those wishing to do psychiatric counseling are taken from "The Human Mind" by Dr. Karl A. Menninger:

> First, show the patient that you are interested in him.
>
> Second, don't lie to him, don't give him placebos or joke with him about his symptoms, and don't promise him anything.
>
> Third, listen to what he has to say, listen a long time, and listen many times, alone and without interruption.
>
> Fourth, listen without censoriousness in word or expression, without rebuke, ridicule, or amusement. Absurd as aspects of them may be, your patient's maladjustments are not funny to him.
>
> Fifth, give no advice, no treatment, and no opinion until you know what the patient is really unhappy about; then tell him that such unhappiness *could be* (not *is*) the cause of such symptoms.
>
> Sixth, gradually help the patient to see the connection between his unhappiness and his symptoms and to realize that he must assume the responsibility for such changes in his techniques or his environment as will be likely to give him greater peace. This, rather than allowing him to throw all responsibility on the doctor, is the rational and only permanently successful method of helping him.

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75-59 263d Street
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"Immune Milk" No Arthritis Cure

"In spite of all the claims made for it, 'immune milk' is, unfortunately, just the latest of hundreds of misrepresented products offered to cure or relieve rheumatoid arthritis," the national medical director of the Arthritis and Rheumatism Foundation declares.

Ronald W. Lamont-Havers, M.D., said the Foundation, which recently completed a six-month survey showing that $250,000,000 is spent annually on such misrepresented products, feels it has "an important responsibility" to provide the nation's 11 million arthritis victims with the facts on this product.

Commenting on claims made for the "milk" in recent major magazine articles, Doctor Lamont-Havers explained that "scientifically controlled studies of the product show it has absolutely no effect on the disease."

The "immune milk" developed by Professor William E. Peterson, a University of Minnesota specialist in dairy husbandry, allegedly gets its "immunity" to rheumatoid arthritis from antibodies produced in the udders of cows injected with streptococcus and staphylococcus vaccines. The victim of the disease, according to the theory, then gets his "immunity" or "cure" by drinking a quart of the "milk" a day. Sold at $1.10 a quart, it must be taken every day for a "prolonged period to terminate the disease entirely," claim the producers.

Doctor Lamont-Havers pointed out that there is no evidence that streptococci or any other living agent directly causes rheumatoid arthritis, and that treating patients by injecting such vaccines was tried and discarded by physicians more than twenty years ago. Even if these antibodies were beneficial to sufferers, he explained, careful studies have shown that antibodies in milk are infrequently absorbed by humans.

Doctor Lamont-Havers said that while there is no specific cure for rheumatoid arthritis, modern medicine can do much to help its victims. "Meanwhile," he added, "research to find a real cure is going forward on a broad front."

Detroit Physiological Society

Meeting of December 17, 1959

METABOLIC LESIONS IN SALMONELLOSIS

By Charles D. Jeffries and D. Frank Holtman
University of Tennessee, Wayne State University

A survey of the data obtained from investigation of the interaction of a host, the chick, and parasite, *Salmonella pullorum*, as well as the action of endotoxin from the parasite was presented. Among the responses which were discussed were alterations in nitrogen metabolism, oxidative metabolism and the effect on the liver lipids.

A disturbance in the amino acid distribution was observed in which the levels of arginine, methionine, glycine and tryptophan were decreased. A single injection of arginine or methionine was effective in prolonging the survival time of infected chicks. The effect of arginine was reported to be due to its involvement in the Krebs-Hensleit cycle and the removal of blood ammonia which was found to increase during the disease. The role of methionine was suggested to be in its function as a methyl donor in the synthesis of creatine and creatinine, the latter having been increased during infection.

It has been shown that citrate accumulates during infection and intoxication. Administration of citrate or fluoroacetate resulted in a decrease in survival time of infected chicks. The accumulation of citrate during infection may be due to loss of activity of enzymes of the Krebs cycle. It was found that succinoxidase was reduced in activity as was isocitric dehydrogenase, aconitase and fumarase. Cytochrome oxidase activity was decreased but not as much as succinoxidase. Malic dehydrogenase was increased in activity.

The level of coenzyme A was found to be reduced by infection. Endotoxin led to a greater reduction of coenzyme A than observed in infected chicks.

Infrared spectroscopic data has confirmed the disappearance of glycogen from the liver during infection and intoxication. These treatments led to a greater depletion than that resulting from fasting alone.

The saponification value of liver lipids increased to a value well above the normal and then fell below the normal near the time at which the majority of animals died. Administration of arginine, methionine and certain other amino acids and lipotropic agents led to a temporary reduction in the saponification value of the lipids.

The above changes became apparent about the time the parasite began logarithemic growth in the host tissue.

Meeting of January 21, 1960

CYSTIC FIBROSIS SCREENING AND SUDOMOTOR TESTING

By Robert M. Webster, M.D., and E. M. Knights, Jr., M.D.
Hurley Hospital, Flint, Michigan

A permanent white handprint on filter paper impregnated with silver chromate gives an instantaneous quantitative method for assaying sweat chloride. Sweat chloride determinations may be used to screen children and adults suspected of having cystic fibrosis and to assess peripheral nerve damage and repair. In cystic fibrosis an excess of sweat formation causes a "heavy" handprint of silver chloride precipitate; control subjects have almost no chloride precipitated. If there is damage to a peripheral nerve the affected area has a zone of decreased or absent sweating, because the sweat glands are innervated by cholinergic sympathetic fibers carried in the peripheral nerves. Other uses of the sweat chloride test are being explored.

EFFECTS OF GROWTH HORMONE ON THE METABOLISM OF NITROGEN FROM INDIVIDUAL AMINO ACIDS

By Helen Lees and O. H. Gaebler
Edsel B. Ford Institute for Medical Research

Treatment of hypophysectomized rats with growth hormone increased the incorporation of N^{15} from four labeled amino acids, glycine, L-alanine, L-aspartic acid and L-glutamic acid, into the myofibrillar and sarcoplasmic protein fractions of quadriceps muscle. Growth hormone produced an overall increase in N^{15} labeling of glutamic acid, aspartic acid, alanine, glycine, serine, arginine, and amide nitrogen isolated from the myofibrillar protein. Although the pattern of labeling varied with the amino acid given, the distribution of the isotope was the same in corresponding growth hormone-treated and control groups.

This work has been published in *Archives of Biochemisty and Biophysics*, 84:188, 1959.

Medical and Hospital Costs

The biggest problem the medical profession and the hospital people must face in the immediate future is why total medical costs are continuing to rise. The reaction of the people to this increase in costs and what to do about it demands answers our public will accept.

The fundamental and basic fact from which to start is that the health care of the people, with almost every passing day, is becoming more efficient, more extensive, more all inclusive. New things are being discovered and new services are being perfected both from the standpoint of hospital care, medical and surgical care, and the new drugs and improved appliances used in health care.

Reports presented by Michigan Hospital Service and Michigan Medical Service at the 1960 Annual Session of The Council are very significant.

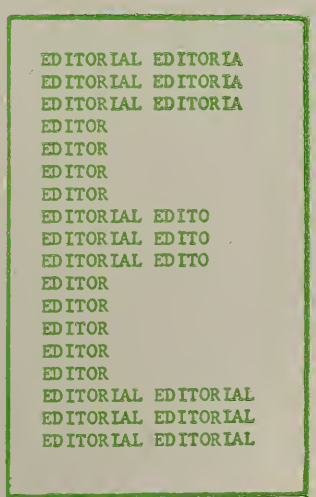
The Hospital Service report is for the complete year of 1959. The total membership for 1958 was 3,673,924, and for 1959 it was 3,585,282, a loss of 88,642.

Michigan Medical Service enrollment figures are complete to November 30, 1959. They show a grand total of 3,485,218 of whom 1,981,130 had changed over at that date to the M75 certificate. There were 886,888 still carrying the old $2,500 family income certificate and 617,200 carrying the $5,000 family income certificate. Efforts are progressing to transfer these two groups.

Reports are that the hospitals are full and it is difficult to get a patient in unless the doctor is fortunate enough to have one whom he can discharge. The frequency and scope of services rendered in the hospitals is constantly increasing and intensive care units are either being adopted or considered quite generally. In our March editorials we outlined several instances of this special care program in Michigan. When we inquired about the expense of these units, we were told that the expense was unquestionably higher to operate these facilities, but that the care of the patients was so infinitely better that there was no comparison.

The very latest figures of costs for hospital services show Michigan Hospital Service during 1958 paid to the hospitals $118,213,928, while the 1959 figure was $131,756,260, an increase of 13½ million dollars for 88,642 fewer subscribers. In 1958 there were 553,262 hospitalized cases and in 1959 there were 566,630. There was an increase of 138,587 hospital days. Average charges for hospital service in 1958 were $29.53, and in 1959 it was $31.14, an increase of $1.61 per day.

For medical services in 1958, Michigan Medical Service spent a total of $49,968,245 while the 1959 costs were $59,367,000 for the first eleven months only. The average monthly disbursements for services amounted to $4,947,250 in 1959 as compared to $4,164,000



for 1958. In 1959 payments were made for 1,599,246 separate services.

These are vital reasons for the increased costs of hospital and medical service.

Very extensive increase in utilization as well as increase in daily costs must be explained to the questioning groups, and the very public who fear being priced out of the market. Drug costs also have been under investigation by congressional committees trying to find out why the costs of medicines has outstripped the cost of doctors' care as reported by the federal departments.

Divide and Conquer

"An Immediate Challenge" (Excerpts from an address by Louis M. Orr, M.D., President of the American Medical Association, delivered before the Annual County Secretaries Public Relations Seminar, Michigan State Medical Society, Detroit, Saturday, January 30, 1960.)

"I am speaking . . . about the threat to the private practice of medicine—the Forand Bill . . . in fact, I would say that we are facing the gravest, most far-reaching crisis in the history of modern medicine. . . . I am sure that some proponents of the Forand Bill are sincerely interested in the well-being of the nation's elderly population. These persons want to do something for the needy aged. I salute these conscientious men and women.

"On the other hand I fear that some proponents are not primarily concerned with the needs of the aged—health or otherwise. My aim is . . . to issue a strong warning to you.

"This is not a routine rhetorical warning, but rather an urgent call to prevent a medical and a national disaster. The time has come for everyone of us to get out of our offices and laboratories, and do something. If we do not act immediately, we are lost.

"This may sound over-exaggerated to some of you, but I mean it . . . if you sit back and let others do your share of fighting, then you might as well resign yourself to government medicine.

"And please do not think for a moment that passage of the Forand Bill will mean anything less than ultimate government control of medical and health care in the United States. . . . Once congress and the federal government guarantees health care to one age group of our population, they will never let up until they have extended this coverage to all age groups . . . so now, after a patient wait of some 10 years, the proponents of federal health care are at it again.

"This time, however, they are using a much more insidious tactic than immediate all out government medicine. . . . They are resorting to a gradual, creeping, foot-in-the-door means to push through their desires. . . . It is much harder to fight a cleverly disguised attack such as this. . . . We are faced with an immediate decision: either we win and win by rapid, vigorous action, or we lose—permanently. . . . Once we lose we are through. . . . No matter how often our opponents lose, they can keep coming back. . . .

"Medical care for any part of our population, including the aged, requires an individual approach, based on scientific medical knowledge and experience. Good care also demands flexibility of technique in treating patients—a quality which would vanish the moment the federal government set up a health program calling for standards of treatment.

"I believe most strongly that only by martialing *every doctor in America* will we be able to successfully battle this dangerous threat.

"Let your enthusiasm . . . help our profession in its all-out war against government seizure and control of American medicine."

Cancer Prevention—Research

A tremendous publicity effort is being carried on pointing toward research work for the discovery of the cause of cancer and the method of prevention or cure of cancer.

For many years, one number of THE JOURNAL each year has been devoted to cancer control. We have been impressed with the public reaction and the professional response to the urge to do something about cancer.

Almost every report of contributions for research at either the University of Michigan or Wayne State University medical schools includes smaller or larger items for cancer study. In the "News Briefs" of this number of THE JOURNAL are one or two references to the same subject and some reports from student work.

The Saturday Evening Post for October 31, 1959, had an eight-page, well-illustrated, well-documented article by Steven M. Spencer, on "New Clues in the Search for Cancer Cures." The sub-head contains the key: "In a massive effort to find an effective weapon against cancer, American scientists are screening 40,000 chemicals a year from every corner of the

world. More than 500 of the soil samples, sent by collectors all over the globe, arrive each week at a research laboratory of Charles Pfizer and Company in Maywood, New Jersey."

The reports from the research being done in our universities here in Michigen also tell of hundreds and thousands of drugs, chemicals, etc., which are being screened looking for information and reaction on cancer.

Just before Christmas, Secretary Fleming of the U. S. Health, Education and Welfare Department announced that traces of certain chemicals had been found in certain cranberry areas, when used in large quantities on cancer study rats, could produce cancer. Recently the pigment in lipsticks became identified as potential cancer causers.

All of this brought to mind an article which was published in THE JOURNAL of the Michigan State Medical Society in June 1948, "A Cancer Cemetery," suggesting a line of research which might produce a cure. Harold S. Hulbert, M.D., of Chicago, suggested and described a "Cancer Cemetery" in which large quantities of fresh cancer material could be buried. Nature's processes would destroy the cancer cells. It might be by worms, bacteria, molds, or by various living or other organisms, digestive process, chemical reactions—there might even be viruses found.

This number of THE JOURNAL is devoted to cancer. The Original Cancer Cemetery paper received very few criticisms as being absolutely fantastic. We are venturing again to call attention of research workers to this line of research which sounds so completely logical, and which is strictly along the line of investigation now being done with the exception of the one feature of establishing a cancer cemetery, where the untreated cancer material is buried over a period of months or years.

In December, 1959, a letter was written to Author Spencer in care of the publishers, and giving him a copy of "The Cancer Cemetery" article. So far nothing has been heard in reply.

The history of penicillin is encouraging. A mold was found which had prevented the growth of bacterial implantation. The hint was there but it took years to develop and give us the wonderful drug we now use so extensively. We urge cancer research workers to read the article by Dr. Hulbert on a "Cancer Cemetery," in the June 1948 number of THE JOURNAL of the Michigan State Medical Society.

This may be purely a dream, but no one will ever know unless somebody carries the work through, and it would not be more detailed or more tedious than work now being done in so many of our big cancer research laboratories.

Federal Legislation

It is anticipated that Congress will adjourn early this year in order to take part in the election program. Enough important legislative matters may be enacted to give campaign material and some more important ones may be passed over. There are a few legislative programs in which the medical profession is very especially and intensely interested which might be brought up for action.

The most important of these is the Forand bill. This bill itself will probably not be passed, but some small portions of it under a different name may be slipped through, giving special medical or hospital services to a small group of obviously deserving persons. This is the foot-in-the-door program. Once the breech is made, that foot may become an elephant. The medical profession should send letters and make contacts that we wish no type or portion of Forand legislation.

The Forand-type legislation and the new Kennedy Bill, which is so threatening, has one very vociferous group supporting it. The AFL-CIO has set this medical-insurance-type legislation as one of its top demands for 1960. Unions will be pressing for such measures or a piece of it. Senator McNamara of Michigan, who made several reports following his committee study of old age problems, advocates "a substantial increase in social security benefits." He has proposed using the social security setup to pay for medical care and hospitalization for older people.

This is a legislative year and both parties will be looking for voters.

Neither party will neglect old age assistance in one form or another and they both will remember that one-third of the voters expected to go to the polls next November will be more than 60 years of age.

That is a factor the medical profession should also remember.

As a profession we take credit and are happy that the increased life expectancy is producing great numbers of senior citizens. Of those in the voting age, one-third are now over 60 and in another 5 or 10 years, that proportion will have increased still more.

Politicians and candidates who are looking for votes naturally will offer benefits to the over sixty-five or over sixty group.

The medical profession and many prepaid insuring

groups now are offering health insurance to this age group without restriction as to age. These programs have been offered as a demonstration that the Forand type legislation is not necessary.

County Medical Society Bulletins

At the Annual 1960 MSMS County Secretaries-Public Relations Conference, a meeting was held for editors of county medical society bulletins. Such a meeting was held two years before and at this meeting it was decided to repeat this event. A very interesting and instructive program was provided. A number of the bulletins are increasing in size, or changing appearance or format.

In its February number, the *Kent County Medical Society Bulletin* has forty pages of very interesting material. There is a listing of officers; a page devoted to the society program of Tuesday, February 9; a listing of all the special and standing committees; a President's message; the address of the Retiring President; a report of the Board of Directors meetings; a report of the Fifty-Seventh Annual Meeting, January 12, 1960, from which we quote one paragraph:

> "Dr. Donald Thorup of Benton Harbor was recognized and made a presentation in appreciation for the twenty years of service on the Board of Directors of Michigan Medical Service contributed by William A. Hyland, M.D. Dr. Hyland responded briefly and was accorded a rising vote of thanks."

There was a timely Kent editorial "Payola in Medicine" by Thomas B. Hill, M.D. There were articles on Civil Defense, Communications, Woman's Auxiliary, the History of Medicine in Western Michigan by William R. Vis, M.D. There was also an article on "What Inflation Means to the Estate Planner," and a section on hospital staff news plus the Kent County Tuberculosis Society schedule and a listing of meetings, lectures and conferences for Butterworth, Blodgett and St. Mary's Hospitals.

Medicina is the new name of the Ingham County Medical Society Bulletin. The January number offers a newly designed cover with a dark band about an inch and a half across the base, a white right margin, and a screened area at the left. There is a rectangular box with the new name in red, and a diamond-shaped box with slightly concaved edges in which various designs or materials may be placed. The diamond area for the January number shows a small and capital letter "A," a reading glass, a pair of scissors, a box of paste, a pen and ink stand—these symbols to tell the story of a "new format." The diamond area for February pictures a nurse working on a child. The diamond shape is repeated at various places throughout the 24-page bulletin.

The Ingham contents are: editorial, "First Editor of Bulletin Traces 27-Year History of Progress," by T. I. Bauer, M.D.; the 1959 Annual reports of the various committees and activities; a welcome to new members with their pictures; Milton Shaw, M.D., continues his "Through the Years" review of twenty-five years ago, and ten years ago. There was a notice of the death of Henry C. Black, New Amendments to the Constitution, Emergency Call List, a column of interesting items, the Doctor Doings, the 1960 committee appointments, and a listing of the officers.

The February Ingham number contained "Scientific Program Arranged for Spring Clinic, April 7"; "Annual Report of the Medical Director"; and the surgical, medical and obstetric cases by month in St. Lawrence, Edward W. Sparrow Hospital, Mason General Hospital and the grand total for all hospitals. There was also a listing of Post Graduate Courses offered at the University of Michigan; an article about the twenty-six members of the Ingham County Medical Society who are serving the State Medical Society in various capacities; a picture of Milton Shaw receiving a plaque in recognition of his services to the profession and to the community which presentation was made by L. G. Christian, M.D.; continuation of Milton Shaw's "Through the Years," an article about medical assistants, and the emergency call list.

These two bulletins show what can be done and what is being done to help build up the medical profession, its morale and cohesiveness, in the county districts. Several other county medical societies could profit by similar action, as well as offer training opportunity to younger as well as older potentially good writers.

Letters to the Editor

Letters to the Editor have always been welcome. Many of them have been published over the years. In the past, several controversial and critical letters or papers have been submitted. When published, the editor and the publication committee reserve the right to secure and publish an answer, closing that particular discussion in THE JOURNAL.

We again invite letters.

AMA Acts on Resolution Urging Scholarship Plan

The American Medical Association has initiated action on the establishment of a scholarship program for medical students with the appointment of a special study committee.

William F. Norwood, Ph.D., chairman of the division of legal and cultural medicine, College of Medical Evangelists, Los Angeles, was named staff director of the committee. Dr. Norwood served 1950 and 1951 as a staff associate in a survey of medical education sponsored by the A.M.A. and the Association of American Medical Colleges.

The AMA House of Delegates in December adopted a resolution that a scholarship fund should be established to aid deserving students to enter the field of medicine and that such a fund be backed by the A.M.A. as a primary sponsor. It acted on the recommendation of the A.M.A. Council on Medical Education and Hospitals which reported it had found sufficient evidence of a real need for a scholarship program.

Philanthropy for Health Up

Total philanthrophy for the nation's health rose to more than $1 billion in 1959, according to the American Association of Fund-Raising Counsel, Inc. Health received an estimated 14 per cent of the total $7.8 billion philanthropy in 1959.

The Association says $665 million was given to health causes by private philanthropy for service funds, and an additional $509 million was contributed for construction of private medical facilities. Approximately $161 million was spent by agencies working to combat 16 separate diseases which cause over one million deaths annually.

The American Association of Fund-raising Counsel, Inc., is a non-profit organization of 31 firms engaged in organizing, directing, and counseling fund raising activities in the U. S. and Canada.

Begin Connecticut Surveys

Connecticut State Medical Society will survey its 3,250 members for their opinions on medical insurance programs. CSMS' House of Delegates also approved a relative value study and a special $10 per member assessment to finance the two studies.

Grad-Training Programs Show Sharp Increase

Graduate medical training programs for physicians have increased markedly since the end of World War II, according to a report prepared by the AMA Council on Medical Education and Hospitals.

The report attributes the expansion to the desire of young physicians to acquire specialty training after discharge from military service. In 1941, there were 8,182 internships; by 1958-59 there were 12,469. The average number of intern positions for each hospital is 14.6, the highest in the past ten years, stated the report.

"A Lot in Common"

At a recent Indianapolis seminar sponsored by the Indiana State Medical Association to study the Forand threat, Indiana's Governor Handley told the audience that he believes "that the philosophy of many of us, not only here in Indiana, but throughout the width and breath of the land, certainly jibes with the philosophy of the American Medical Association."

Governor Handley also said, "when we take a look at this federal aid project, this health and federal domination here and there . . . I think we have a lot in common with the medical associations because you learned it the hard way, you've dedicated yourselves, you've given long hours, you want the freedoms and liberties of action which every good American citizen is entitled to."

Survey of Aged

Nationwide study of health needs of persons sixty-five and older by National Opinion Research Center revealed only one person in sixteen of those who said they had been ill and who had not seen an M.D. mentioned lack of money as a reason.

Three Plans Join Blue Shield

Three more nonprofit, medical care plans have been approved as active members of Blue Shield Medical Care Plans. The three plans are Rhode Island Medical Society Physicians Service, headquartered in Providence; Chelan County (Wash.) Medical Service Bureau, located in Wenatchee; and Kitsap County (Wash.) Medical Service Bureau, Bremerton.

The Rhode Island Blue Shield Plan, founded in 1949, is the largest of the newly-approved plans. It has more than 559,000 members enrolled, representing approximately 65 per cent of the state's population.

The three organizations bring to seventy-four the number of Blue Shield Plans and affiliates in the United States and Canada.

Tells Research Accomplishments of Pharmaceutical Industry

Austin Smith, M.D., president of the Pharmaceutical Manufacturers Association, told Senate investigators February 23 that Americans "would be paying a billion dollars a year more for drugs if the price of medicine in the past few years had gone up only as much as the total cost of living.

"On the basis of the record, no other American industry has contributed more from its resources to the public welfare."

Modern drugs have helped to add nearly ten years to the lifespan of the average American within the past thirty years, he observed, adding: "since 1947 this industry has spent about $1 billion in research alone.

"Result: the discovery and development of the sulfa drugs, the synthesis and discovery and development of high-potency corticosteroids, the mass production of penicillin, and the discovery and development of the other broad-spectrum antibiotics.

"More than 3,000,000 Americans, living today, would be dead if the nation's death rate had remained constant at its 1937 level.

"Between 1930 and 1958 the death rate for babies under one year was cut 57 per cent—for children one to four years, was reduced 80 per cent—for children five to 14 years, was reduced 71 per cent.

"Only as recently as the years 1930 to 1934, one of every 157 mothers died at childbirth. This number has been slashed to one out of 2,222 in the four years ending in 1958."

Ambulance Mail Trucks

The Post Office and the office of Civil and Defense Mobilization are co-operating in a project to equip the nation's 40,000 mail trucks for speedy conversion to ambulances.

The first phase of the program, to be completed in the next year, will equip 8,000 vanette-type mail trucks. Permanent metal brackets, which will not interfere with the regular use of the truck, will be installed on the inside walls. Litters of non-deteriorating vinyl can be attached to the brackets so as to accommodate up to four patients. A jump seat for the attendant is placed at the rear.

When used as ambulances the trucks will be operated by the regular Post Office drivers while trained personnel to attend victims will be provided by civil defense agencies.

First Aid's 50th Anniversary

The American Red Cross this year marks the 50th anniversary of its nation-wide program of first aid instruction. As it begins its second half-century of teaching first aid, the Red Cross has 85,000 instructors, compared to a director and an assistant in 1910.

The Red Cross teaches first aid across the nation to police, firemen, telephone and other utilities maintenance employes, and in many industrial plants. There are first aid-trained men aboard river and harbor patrol boats and in the membership of the Civil Air Patrol. First aid is a required skill for members of the National Ski Patrol.

MSMS speaks nationally for Michigan Medicine, contributes advice and service to American Medicine.

Gives Opinion on Administration Of Anesthetics by Nurses

Dear Doctor:

You ask my opinion on a set of facts which, if I correctly understand them, may be summarized as follows. You state that for a number of years anesthetics have been administered in your community by nurses on a fee-for-service basis but that that practice has been questioned as illegal because not under the supervision of M.D. anesthesiologists.

Under the governing statutes in Michigan, a registered nurse may not, of course, practice medicine. She may, however, perform any professional service requiring the application of principles of nursing . . . such as and including the execution of treatments and medications as prescribed by a registered physician.

Under the Medical Practice Act, the term "practice of medicine" is defined to mean "the actual diagnosing, curing or relieving in any degree, or professing or attempting to diagnose, treat, cure or relieve any human disease, ailment, defect, or complaint, whether of physical or mental origin, by attendance or by advice, or by prescribing or furnishing any drug, medicine, appliance, manipulation or method, or by any therapeutic agent whatsoever."

Insofar as I have been able to discover, there are no adjudicated cases in Michigan dealing with the subject under discussion. The general subject has, however, formed the basis of an opinion by the Attorney General rendered November 14, 1939. Although the opinion of the Attorney General does not have the same effect and degree of finality as a court adjudication, it does have the effect, until overruled, of binding state agencies and, until and unless overruled, is generally regarded as expressing the law of the state.

Under the opinion above mentioned, it is held that registered nurses may lawfully administer anesthetics only under the direction and supervision of a registered physician. In discussing the problem, the opinion points out that the nurse may not *choose* the type of anesthetic, may not *prescribe* and may not determine when and whether an anesthetic is to be administered. In short, the nurse may act in this capacity only under the direction and supervision of the physician, since otherwise, she would engage in the unlawful practice of medicine.

In attempting to apply these conclusions to your specific inquiry, I am somewhat uncertain as to what significance you attach to the phrase "fee-for-service." It is my opinion, however, that the manner of paying the nurse or the basis upon which she is paid is not in itself important as long as the service which she furnishes is furnished under the direction and direct supervision of a registered physician. If, by "fee-for-service" you mean that she occupies a status independent from that of the physician or surgeon in charge so that he would not be responsible for her supervision and direction, then I would say that she cannot lawfully occupy such a status.

I note that you state that it is contended that the registered nurse may administer an anesthetic only under the supervision of "M.D. Anesthesiologists." If, by this it is meant that the R.N. can ad-

minister an anesthetic only under the supervision of a doctor who is a specialized anesthesiologist, I cannot agree that the law is that restrictive. Without attempting to express any opinion as to what may or may not be good practice, I believe that it is lawful for the registered nurse to administer an anesthetic under the direction and direct supervision of the licensed physician or surgeon in charge.

To summarize, it is my conclusion that a registered nurse may not lawfully engage in the independent practice of anesthesiology but must, at all times, be under the direction and supervision of a licensed physician who will, of course, be liable for her acts done under his supervision and who must assume full responsibility for diagnosis, choice of anesthetic and the manner of its administration.

Sincerely yours,
LESTER P. DODD
Legal Counsel, MSMS

Use of Mediation Committees

Dear Doctor Wiley, MSMS Secretary:

Sometime ago I received an inquiry arising out of the adoption by the MSMS Liaison Committee with the Michigan Chapter of the Health Insurance Council of the following motion:

"That the Committee recommend to the MSMS Council that MSMS Legal Counsel be consulted as to whether it would be permissible and proper for insurance companies to present matters of importance to the county medical society mediation committees."

At the December meeting of The Council of MSMS, I expressed the view that it was entirely permissible and proper for an insurance company to present a pertinent matter to a county medical society mediation committee inasmuch as the basic purpose of such a committee is to resolve misunderstandings between physician and patient or between the component county society and the public (of which an insurance company is a member). The Council concurred in this view.

Subsequently you have furnished me a copy of a letter dated February 4, 1960 from a county medical society requesting elaboration of this opinion. That letter points out that previous experience has shown that the acceptance of complaints from insurance companies, labor unions and other organizations in behalf of policy holders or members is apt to lead to various complications and, indeed, to defeat the obvious objective of improving physician-patient relationship and the public relations of the medical profession.

I agree wholeheartedly with observations in that county society letter and want to make clear that I did not intend, by my original opinion, to approve or endorse such practices. The sole question which I considered and upon which I intended to express myself was whether an insurance company which, itself, had a grievance against a physician might avail itself of the mediation procedure. For instance, insurance companies frequently employ physicians to make examinations or perhaps to perform other services. Should a dispute arise between an insurance company and a physician arising out of such relationship, I think it perfectly proper that the mediation machinery of the county society be used to resolve it. I did not intend, however, nor do I believe that The Council intended to suggest that mediation committees should throw open their doors to the mediation of second-hand complaints presented through organizations.

I adhere to my original opinion that an insurance company is a proper party to mediation procedure where it is directly concerned as a party to a dispute with a doctor. I regret that room was left for misunderstanding and I sincerely hope that this will clarify the situation.

Sincerely yours,
LESTER P. DODD
Legal Counsel, MSMS

About Income Tax Deductions

Dear Mr. Burns, MSMS Executive Director:

You recently forwarded to me an inquiry regarding the deductibility, for income tax purposes, of health and accident insurance premiums paid by an individual taxpayer.

In order to keep the matter in proper perspective, it should be kept in mind that health and accident insurance premiums are not, either in whole or in part, automatic deductions from gross income for tax purposes but are deductible only as a part of medical expenses where the total amount of such expenses is sufficient to permit of a deduction under the Code. When the taxpayer and his spouse are under 65 years of age, medical expenses, including health insurance premiums, are ordinarily deductible only to the extent that such expenses exceed 3 per cent of the taxpayer's adjusted gross income. When the taxpayer or his spouse have attained age 65, this 3 per cent limitation, generally speaking, is removed.

Since these provisions have been in the Internal Revenue Code, the Internal Revenue Department has consistently taken the position, and its regulations so provide, that the deductible expenditure for medical care of amounts paid as premiums on health and accident insurance policies is restricted to those portions of the premiums which are attributable to medical coverage. Under the Internal Revenue Department's

(Continued on Page 648)

as it calms anxiety!

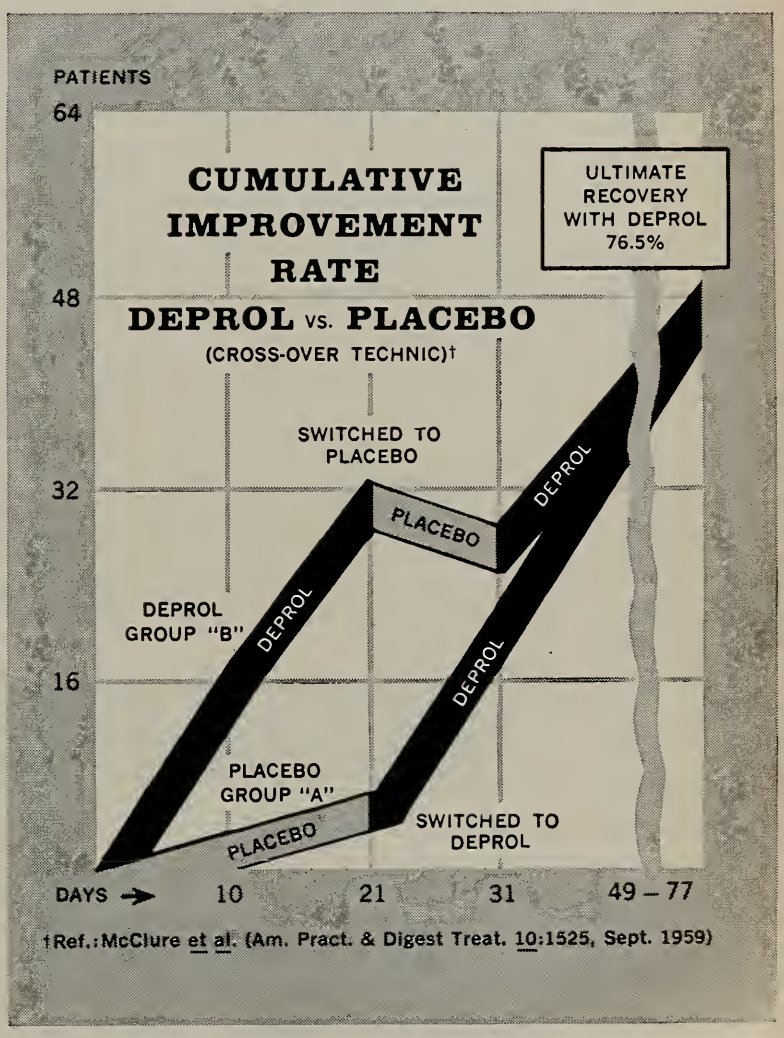
Smooth, balanced action lifts depression as it calms anxiety... rapidly and safely

Balances the mood – no "seesaw" effect of amphetamine-barbiturates and energizers. While amphetamines and energizers may stimulate the patient – *they often aggravate anxiety and tension.* And although amphetamine-barbiturate combinations may counteract excessive stimulation – *they often deepen depression.*

In contrast to such "seesaw" effects, Deprol lifts depression as it calms anxiety – both at the same time.

Acts swiftly – the patient often feels better, sleeps better, within two or three days. Unlike the delayed action of most other antidepressant drugs, which may take two to six weeks to bring results, Deprol relieves the patient quickly – often within two or three days.

Acts safely – no danger of liver damage. Deprol does not produce liver damage, hypotension, psychotic reactions or changes in sexual function – frequently reported with other antidepressant drugs.



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Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be gradually increased up to 3 tablets q.i.d.

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Supplied: Bottles of 50 light-pink, scored tablets. Write for literature and samples.

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About Income Tax Deductions

(Continued from Page 644)

regulations and interpretations, those portions of insurance premiums paid which are attributable to indemnification for loss of life, eyes, limbs or for disability, are not deductible. These rulings have heretofore been consistently upheld by the United States Tax Court.

Recently, the Third Circuit Court of Appeals sitting in Philadelphia disagreed with this interpretation and held that in appropriate cases, the total amount of health and accident premiums is a deductible medical expense.

I understand that the Commissioner of Internal Revenue has indicated that he will not acquiesce in this decision but will continue, except in cases arising in the Third Circuit, to interpret the law as has been done in the past. Sooner or later, of course, if the law is not changed in the meantime by Congress, the matter will get to the United States Supreme Court for final determination. Until then or until our own Circuit Court of Appeals (Sixth Circuit) holds to the contrary, I do not believe the Commissioner or the District Director in Michigan will allow full deductibility.

In view of the unsettled state of the law as above outlined, I do not believe that any organization (at least outside of the Third Circuit) can safely advise its members that such deductions would be allowed. Any taxpayer can, of course, claim such deductions and, if he cares to make a test case of Appeals in our Circuit. I believe, however, that until someone does so, the Internal Revenue Department will continue to disallow such premiums as medical expense, except such portions thereof as are applicable to medical care coverage.

Sincerely yours,
LESTER P. DODD
Legal Counsel, MSMS

About Signed Authorizations

Dear Doctor:

I have your letter of December 18 in which you requested my opinion on a set of facts which you state as follows:

"The hospital in this city has required a written permission from the mother of a newborn boy authorizing the doctor to do a circumcision on her son. If the mother is under 21 years of age, this is

(Continued on Page 650)

...MALNUTRITION OR
LEG CRAMPS DURING PREGNANCY?

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1. Oyster Shell Calcium - Phosphorus Free!
2. New Form of Iron!
3. Dry Filled Capsule - Sure, Quick Absorption!
4. Economical Once-A-Day Dosage!
5. Wider Range Nutritional Support!
6. Relieves Troublesome Leg Cramps!

EACH dry filled capsule (lavender and white) provides:

Ferrous Fumarate (Iron)	150 mg.	Vitamin B-12 (Cobalamin conc. NF)	2 mcg.
Deep sea oyster shell (Calcium)	600 mg.	Folic Acid	0.25 mg.
Vitamin C	50 mg.	Niacinamide	10 mg.
Vitamin A	4000 USP Units	Vitamin K (Menadione)	0.25 mg.
Vitamin D	400 USP Units	Rutin	10 mg.
Vitamin B-1	2 mg.	Sodium Molybdate	3 mg.
Vitamin B-2	2 mg.	Fluorine (Calcium Fluoride)	0.25 mg.
Vitamin B-6	0.8 mg.	Iodine (Potassium Iodide)	0.15 mg.

SAMPLES ON REQUEST

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Poliomyelitis-Diphtheria-Pertussis-Tetanus

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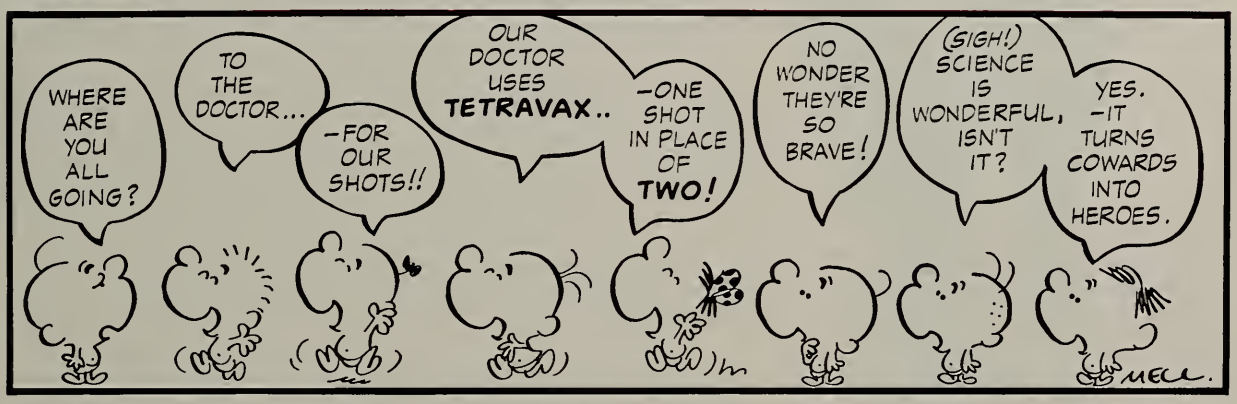

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About Signed Authorizations

(Continued from Page 648)

turned over to the father for his signature. If he is under 21 years of age, the baby's grandparent is asked to sign the authorization allowing the doctor to perform the circumcision.

"This is quite a complicated and involved procedure at times and I have wondered if it is necessary that we continue such a requirement and whether it is not acceptable to have the baby's parent sign this authorization."

It is my opinion that under the set of facts above outlined, the consent of the baby's parent is sufficient. The mere fact that the parents may be under the age of 21 years does not, in my opinion, invalidate a consent of this type. In fact, I believe it to be safer and preferable practice to have the consent of the person or persons having the care and custody of the child and responsibility for its welfare rather than to rely upon the consent of a third person who does not have that responsibility merely because the third person is over 21 years of age. In expressing this opinion I am assuming, of course, that the consenting parent is not otherwise under disability (such as mental incompetency) and that the child does not have a legal guardian other than the parents.

Sincerely yours,

LESTER P. DODD
Legal Counsel, MSMS

Promote Simplified Claim Forms

The MSMS Liaison Committee with the Michigan Chapter of the Health Insurance Council requests that county societies adopt, use and promote the "Simplified Claim Forms" which were endorsed by the 1955 AMA House of Delegates.

The MSMS Council recommends that county societies adopt the forms for use by the doctors in making claims to insurance firms.

A copy of the "Simplified Claim Forms" booklet was mailed to every MSMS member some months ago. Extra copies may be obtained from MSMS, P. O. Box 539, Lansing.

State Aging Conference Called for September

The Michigan Commission on Aging will hold a "State House Conference on Aging" in Lansing during September.

The state meeting will climax a series of regional conferences, held during March, April, and May. Besides the 11 regional conferences on aging and the state-wide meeting, many counties in the state are planning to hold their own local conferences.

More than 35 state-wide organizations have nominated representatives who have been appointed to the Advisory Committee of the Michigan Commission on Aging. The Michigan State Medical Society is represented by A. H. Hirschfield, M.D., of Detroit.

The Michigan activity is part of a nation-wide effort during 1960-61 to draw attention of the country to issues facing its older people. The Congress, in making funds available for the activity which will lead to the White House Conference on Aging in January, 1961, in Washington, D. C., outlined these major objectives:

"that the Federal Government shall work jointly with the States and their citizens to develop recommendations and plans for action . . . which will serve the purposes of:

"1—Assuring middle-aged and older persons equal opportunity with others to engage in gainful employment which they are capable of performing, thereby gaining for our economy the benefits of their skills, experience and productive capacities; and

"2—Enabling retired persons to enjoy income sufficient for health and for participation in family and community life as self-respecting citizens; and

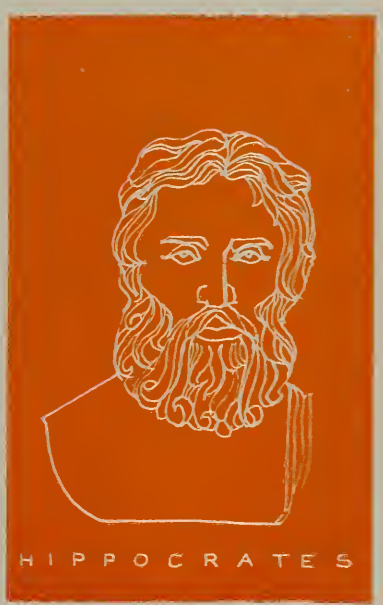
"3—Providing housing suited to the needs of older persons and at prices they can afford to pay; and

"4—Assisting middle-aged and older persons to make preparation, develop skills and interest, and find social contacts which will make the gift of added years of life a period of reward and satisfaction and avoid unnecessary social costs of premature deterioration and disability; and

"5—Stepping up research designed to relieve old age of its burden of sickness, mental breakdown and social ostracism."

To focus attention on these needs, the theme of the conference will be "Aging with a Future—Every Citizen's Concern."

The Michigan Commission on Aging, appointed by Governor Williams, includes the following: James E. Brophy, Detroit, chairman; Lynn M. Bartlett, Lansing; Dan Connell, Spring Lake; Wilma Donahue, Ann Arbor; Albert E. Heustis, M.D., Lansing; Max Horton, Detroit; John B. Martin, Grand Rapids; Willard J. Maxey, Lansing; Charles Odell, Detroit; Rev. John D. Slowey, Lansing; Charles F. Wagg, Lansing; and Leonard Gernant of Western Michigan University is Executive Secretary. Persons interested in further information concerning the activity may write to the office of the Commission at Western Michigan University, Kalamazoo.



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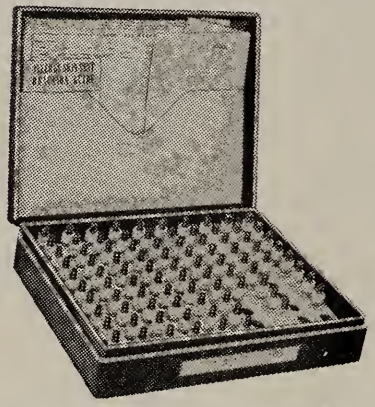

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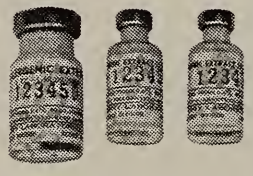

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Promotes Medical Assistants' Society

(The following clever article appeared in the February number of the Oakland County Medical Society Bulletin, written by Mary Thompson.)

CASE HISTORY

Patient: Oakland County Medical Assistants' Society

Residence: Here and There

Age: Five years

Parents: Michigan State Medical Assistants' Society and American Medical Assistants' Society

Godparents: Oakland County Medical Society

Diagnoses: "Growing Pains." Onset of symptoms about five years ago. Patient began to have difficulty in recognition of existence. Evidence of "stunted growth" due to apathy of godparents.

Family History: Parent Society was founded in 1940, purpose being, to make available to women who are employed by a member of the Oakland County Medical Society, as an assistant, secretary or laboratory technician, a united organization dedicated to higher standards in the medical profession, to promote honest, loyal and efficient service to the doctors, to the profession and to society which they serve.

RX: Recognition and encouragement in our endeavors. Participation in our program and lectures. Encouragement of employes who are not members to visit us, help us with our philanthropic projects.

Prognosis: A more loyal, honest, efficient and grateful staff in your office. A true ambassador to the profession.

NSCCA Prepares Guides

A new step in strengthening development of the rehabilitation movement has been taken by the National Society for Crippled Children and Adults, with publication of two guides to aid in establishing sound administration for the new centers being established to meet the needs of the physically handicapped. The publications stem from an intensive investigation, financed jointly by the National Society and the Office of Vocational Rehabilitation, United States Department of Health, Education and Welfare.

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Once you've prescribed milk and rest for a peptic ulcer patient, Donnalate may be the best means for fulfilling his therapeutic regimen. This is because Donnalate combines several recognized agents which effectively complement each other and help promote your basic plan for therapy. A single tablet also simplifies medicine-taking.

in Donnalate: Dihydroxyaluminum aminoacetate affords more consistent neutralization than can diet alone. • Phenobarbital improves the possibility of your patient's resting as you told him to. • Belladonna alkaloids reduce GI spasm and gastric secretion. And by decreasing gastric peristalsis, they enable the antacid to remain in the stomach longer.

Each Donnalate tablet equals one Robalate® tablet plus one-half Donnatal® tablet: Dihydroxyaluminum aminoacetate, N. F., 0.5 Gm.; Phenobarbital (1/8 gr.), 8.1 mg.; Hyoscyamine sulfate, 0.0519 mg.; Atropine sulfate, 0.0097 mg.; Hyoscine hydrobromide, 0.0033 mg.

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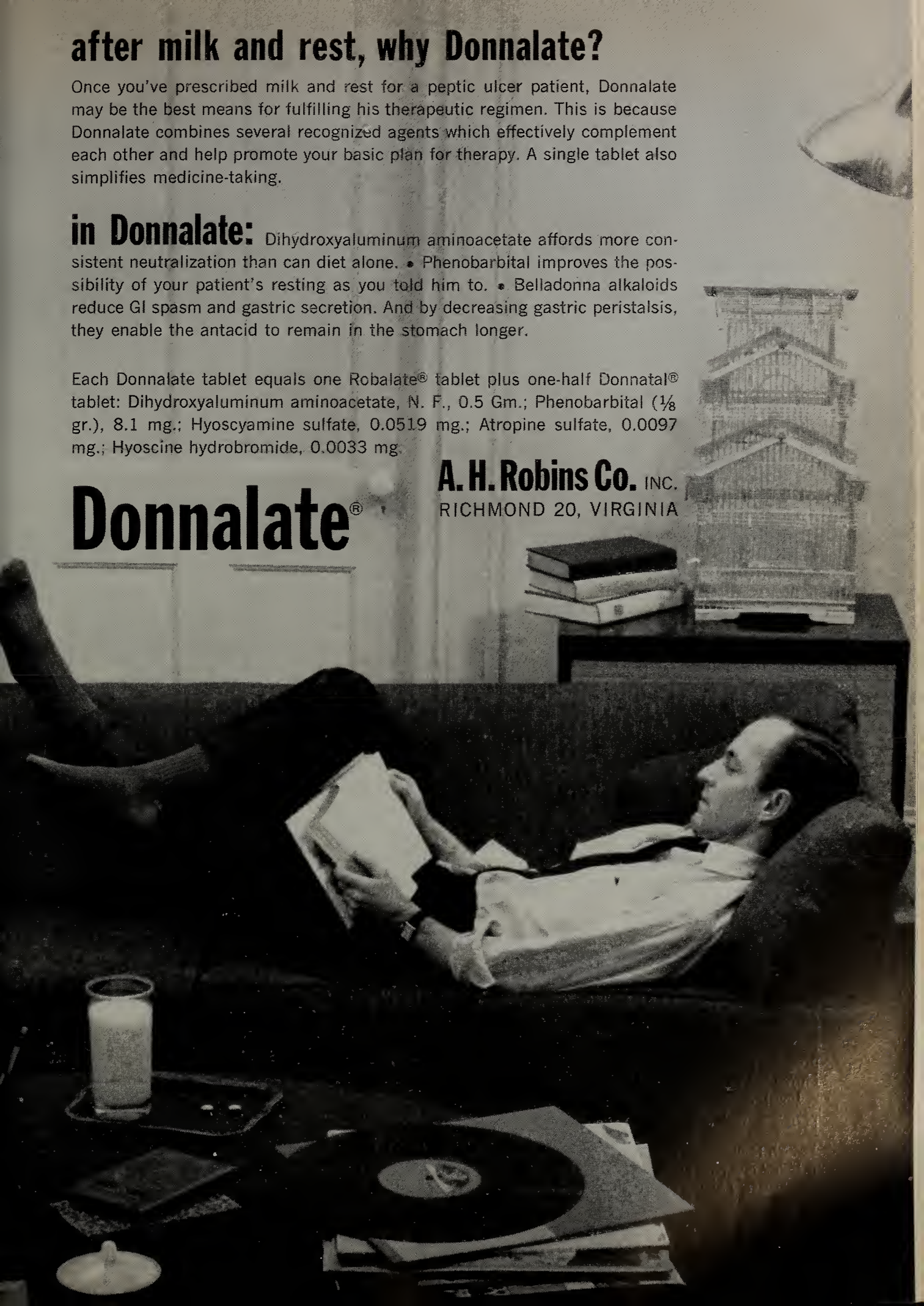

MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

Revision of Medical Certificate For Marriage License

The Medical Certificate for Marriage License, Form V-90, has recently been revised. The new form is reproduced on this page. The major change is in providing a space for the physician to list the name of the serologic test performed, whereas the old form merely listed the results of the serologic test.

The reason for this change was the State Health Commissioner's declaration of September, 1959, adding additional serologic tests to those already approved as standard serologic tests for premarital and prenatal purposes. This change was explained in the November issue of THE JOURNAL MSMS.

Local county clerks will be provided by the department with a listing of all laboratories approved for premarital serologic tests, together with a list of the exact test which each laboratory may perform. The county clerk is responsible for checking the information on each medical certificate presented by applicants against this list.

The new form will be available soon to physicians through their local county clerk.

STATE OF MICHIGAN

MEDICAL CERTIFICATE FOR MARRIAGE LICENSE

City_____ Date_____

This is to Certify That I have this day examined

Name of Applicant_____

Address _____

in accordance with the provisions of Act No. 207, Public Acts of 1937, as amended by Act No. 112, P. A. 1939, and Act No. 230, P. A. 1945, and in my opinion said applicant is free from syphilis, gonorrhea and chancroid. The following tests_____ *(Name of tests)* made at_____ *(Name of laboratory and city where located)* Laboratory* on specimens taken _____, 19____, are non-reactive.

Signed _____ (Physician)

Address _____

Applicant_____ (to be signed in presence of physician)

*Only laboratories approved by the Michigan Department of Health shall make the test for syphilis and gonorrhea required under this act. Approved serologic tests include: Hinton, Kahn, Kline, Kolmer, Mazzini, VDRL, Treponema Pallidum Complement Fixation and Reiter Protein Complement Fixation.

This certificate is valid for only 30 days beginning on date when physical examination was performed or laboratory specimens taken, whichever was earlier.

See reverse side for Premarital Law.

EDITOR'S NOTE: *Each month, the State Health Commissioner is invited to express his views on health matters and Michigan Department of Health activities.*

New Film—"Ready For School"

The Michigan Department of Health has completed a new film entitled, "Ready for School." This 18-minute, sound, color motion picture takes a warm, understanding look at the problem of bringing up a child so that he is ready for school—physically, mentally, and emotionally.

While a good portion of the film deals with the importance of medical and dental care, it is keyed to the concept that a child's world is vivid with experiences and that every experience throughout the first five years of life can be considered a part of preparation for school. Among the subjects touched

on in the film are such things as regular bedtime, nutrition, cleanliness, safety, vocabulary development, dental care, pre-school medical and dental examinations, basic skills (tying shoes, dressing) and social responsibility.

"Ready for School" will be of great value for teachers of expectant parent classes, and for use with parents in pre-school conferences, for teacher-preparation institutions, and for all agencies concerned with the health and welfare of children.

The film, which was approved by the Child Welfare Committee of the Michigan State Medical Society, is available for showing without charge to Michigan residents. Requests for bookings should be directed to the Section of Education, Michigan Department of Health, Lansing 4, Michigan.

Census of Public Health Nurses

On January 1, there were 935 full-time nurses employed by all types of agencies for public health work in Michigan. This was an increase of 39 nurses or 4.2 per cent over the last census prepared in 1957. In the meantime, the estimated population of Michigan has increased 5.5 per cent so the already low ratio of public health nurses to population is getting lower. The overall average population served per nurse is one to over 8,500. The distribution of nurses by type of agency is as follows:

COUNT OF PUBLIC HEALTH NURSES

	1957	1960
Health Departments:		
County and District	307	330
City	188	180
Boards of Education	127	147
Other Official	41	36
Non-Official	138	140
Combination	71	76
State	24	26
	896	935

In addition to the full-time nurses, there were 81 part-time nurses employed and 29 full-time licensed practical nurses.

New Films of Medical Interest

The Michigan Department of Health maintains a comprehensive library of health-related films which are available for loan to Michigan residents. No rental charge is made for these films but return postage must be paid by the borrower. Recent additions to the film loan library of interest to physicians are the following:

Hospital Sepsis. 30 min., color. Churchill-Wexler Film Productions.

Shows how a strain of bacteria, foreign to a hospital, spread from the room where a patient with a carbuncle was in bed. Shows bacteria count from bedding, floor, and elsewhere in hospital at each of the seven-day periods of the test.

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Grand Rapids, Michigan

Shows how hospital practices can spread bacteria from one patient to another. Offers suggestions on changes in methods and routines of housekeeping and patient care which can reduce spread of bacteria.

Cardiovascular Disease. 30 min., b & w. American Heart Association.

This film deals with the problem of caring for stroke patients in their own homes. Detailed attention is given to physical problems of the stroke patient and to physical therapy techniques which can be applied by the patient's family. It also deals frankly with some of the emotional problems confronting the stroke patient and his family. The impact of this film is heightened by its authenticity. It is based on the case history of a 63-year-old fireman who fought and won a hard battle for rehabilitation after he had been paralyzed by a stroke.

Radiation: Physician and Patient. 45 min., color. The American College of Radiology and the U. S. Public Health Service.

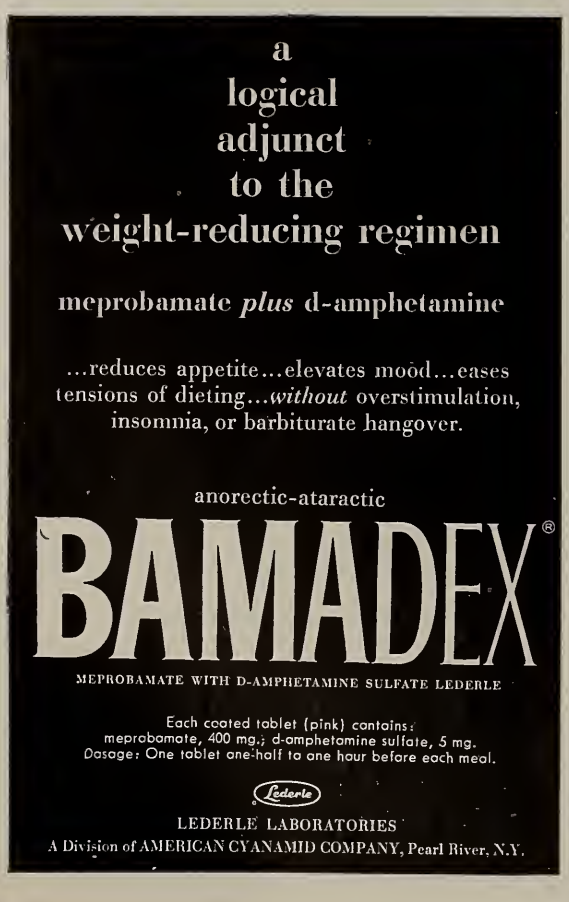
This film is essentially about medical radiology—the problems it raises; its biological effects; its physical behavior; and its proper use in clinical examinations. The key message of the film is the *why* and *what* of radiation exposure in diagnostic radiology. The film emphasizes the need for lower radiation exposure to patients undergoing radiological examinations. For physicians.

Community Health Is Up To You. 18 min., b & w. McGraw-Hill Book Co.

Designed to show the responsibility of the individual citizen for making sure his community's health facilities are adequate and to show the value of the community health council in helping to accomplish this. For senior high, college, or adult groups.

A Study in Maternal Attitudes. 30 min., b & w. New York Fund for Children.

This film is based on the Maternal Attitude Study Project in New York and shows the procedure of a joint interview of seven mothers by the physician and psychiatrist. It demonstrates the techniques which the author, Dr. David Levy, used to get the mothers to discuss their problems. The film is intended primarily for doctors and nurses in pediatric settings including child health conferences and will be used in Maternal and Child Health inservice training programs.



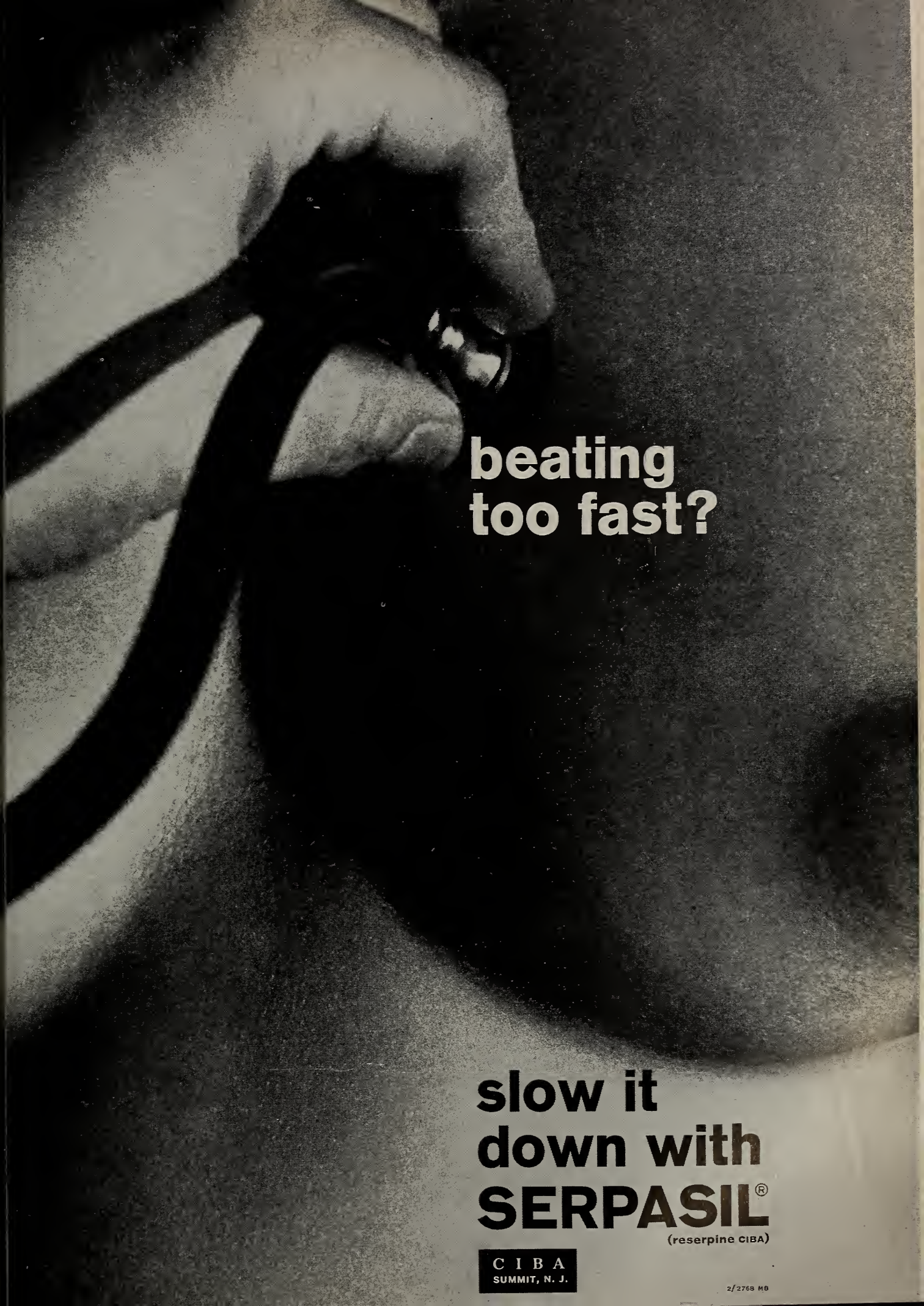
Commissioner's Conference

In February, forty local health officers, representing most of the 43 local health departments in Michigan, met in Lansing for the 10th annual Commissioner's Conference. These conferences were established by the state health commissioner to provide a mechanism for getting advice from the local health officers on how best to improve public health programs in the state. The subjects under consideration at this year's meeting were (1) Screening Procedures, (2) Nursing Homes, (3) Home Care Programs, and (4) Civil Defense.

Following the final session of the three-day conference, the health officers submitted a list of recommendations covering these four areas to the state health commissioner.

U.P. Gets Epilepsy Unit

A permanent epilepsy unit has been established in the Upper Peninsula. This new medical facility, at the Francis Bell Memorial Hospital, Ishpeming, was made possible by funds contributed by the Elks Club of Ishpeming for the purchase of an EEG machine. In the past the Upper Peninsula was served by a mobile EEG Service operated by the Michigan Epilepsy Association. The MEA will continue to help other Michigan communities with mobile service where needed by physicians.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Cancer Comment

Coordinating the Attack on Cancer in Michigan

"Lives are not saved in the laboratory; lives are saved where people are." This was said by Dr. George Papanicolaou in urging the public and the medical profession to make full use of the tools that have been created for the control of cancer.

To promote the greater use of these tools in Michigan, the American Cancer Society joined the medical profession in this state seven years ago in the formation of a central organization to unify Michigan groups interested in cancer control. The Michigan Cancer Coordinating Committee, created November 12, 1953, united the following six members: the American Cancer Society, Michigan Division; the American Cancer Society, Southeastern Michigan Division; the Michigan Department of Health; the Michigan Health Officers Association; the Michigan Dental Association, and the Michigan State Medical Society.

These organizations, each with unique resources, worked together through the Michigan Cancer Coordinating Committee to win gains over cancer that would be beyond their individual reach. As members of the Committee, the Michigan State Medical Society and the Michigan State Dental Association advanced professional education through the use of films, literature and exhibits produced by the American Cancer Society and with materials and displays of their own. Significant cancer articles were published in their journals, and speakers discussed aspects of cancer at their special conferences and county and state society meetings.

The Michigan Cancer Coordinating Committee joins the state and county medical and dental societies in sponsoring cancer symposia, films, exhibits, refresher courses, fellowships and medical programs on cancer. Many of these programs are subsidized by the American Cancer Society and the Michigan Department of Health.

Statistical studies concerning the prevalence and death rate of cancer are handled by the governmental member of the Michigan Cancer Coordinating Committee, the Michigan Department of Health, in cooperation with the county health departments. These agencies also promote and support some tumor clinics and see that standards of nursing care and social work are maintained.

The Michigan Health Officers Association joins the other professional groups in checking the progress of the work and suggesting new programs when the need arises.

The Michigan Cancer Coordinating Committee has developed and carried an effective anti-quackery program through exhibits and literature it disseminates. We hope to induce our legislature to pass more stringent regulatory laws against quackery. The Committee also has led a program to revamp and improve the Hospital Cancer Registries as required by the American College of Surgeons. It is apparent that a central cancer registry will be established as a pilot study in Wayne County. This is a cancer control facility long neglected and of great potential.

Thus, the multi-agency approach of the Michigan Cancer Coordinating Committee results in new cancer control services in addition to helping each agency deploy its resources to the greatest advantage in combatting cancer.

The average physician sees about five new cases of cancer a year at most. Yet his ability to recognize possible signs of the disease in those five cases may mean life or death to the individuals involved. That is why one of our major efforts is directed toward helping the physician to increase his knowledge of cancer detection and treatment. The American Cancer Society makes available to every doctor of medicine in the country and to all dentists, nurses, technicians and medical students, information about new developments in the diagnosis and therapy of cancer.

The Michigan Cancer Coordinating Committee is able to draw on the resources of a national cancer fighting organization in helping to bring the latest technique and information on cancer control into the office of every Michigan physician. The American Cancer Society's two bi-monthly scientific journals—"CANCER" and "CA: A Bulletin of Cancer Progress"—unite the cancer control experts of 73 nations in an exchange of knowledge. Michigan dentists and physicians are among the hundreds of thousands of professional people who see the Society's films, slides and exhibits each year. Documentary kinescopes and other medical films are used to demonstrate detection and treatment methods for specific sites. Closed circuit TV is widely used. Nationally recognized cancer authorities also share their insights with Michigan doctors of medicine and dentists through the Cancer Society's many monographs and pamphlets. New developments in cancer diagnosis and therapy were presented last year to more than three thousand Michigan physicians who attended the 100-odd meetings sponsored by the American Cancer Society, the Michigan Cancer Coordinating Committee and county

(Continued on Page 660)

Preferably, antibiotic therapy should be based on pretreatment culture of the offending pathogen, but in bacterial pneumonia the problem may well be too pressing to permit the required delay of 24 to 48 hours. A differential diagnosis among bacterial pneumonias, based on such clinical grounds as speed of onset, sepsis and pain may guide the choice of antibiotic for initiation of therapy.

Should clinical judgment dictate that antibiotic therapy be started immediately, at the same time a sputum sample or a subglottic swab can be sent to the laboratory for culture and sensitivity studies. If the response to the first antimicrobial agent proves unsatisfactory, a reasonable basis for changing therapy will then be at hand.

Choosing the Antibiotic

Since therapy must be started at once for bacterial pneumonia, it is advisable to choose a broad-spectrum antibiotic that quickly produces high levels of active agent (e.g., tetracycline phosphate complex, TETREX). Such an antibiotic probably has the best chance of controlling the pathogen, whether it be gram-negative or gram-positive. And if the laboratory report shows that the invading organism is much less sensitive to tetracycline than to other agents, the patient can then be changed to an appropriate antibiotic. If the difference in sensitivity is slight, then the possibility of side effects, sensitization, and toxicity should be evaluated before changing therapy to another antibiotic.

The greatest number of bacterial pneumonias are caused by pneumococci, which respond very well to penicillin, tetracycline, and chloramphenicol. Also, these antibiotics are usually effective against the other gram-positive coccal pneumonias. But penicillin is ineffective against the viral pneumonias and the gram-negative *Hemophilus influenzae* and *Klebsiella pneumoniae*. Although *K. pneumoniae* causes only about 1 to 2 per cent of pneumonia cases on the average,[1] these are apt to be acute and fulminating (Friedländer's pneumonia), with a high mortality rate if not effectively treated. Since pneumococcal pneumonia may be difficult to distinguish clinically from Friedländer's, except by gram-stained sputum smear, it may be wiser to start treatment with an agent also effective against Klebsiella.

Penicillin, however, in addition to having a limited spectrum, also causes many minor and some serious sensitivity reactions. In a recent survey[2] it was found that penicillin produced severe skin reaction. But most important was the observation that anaphylactic shock, with a fatality rate of about 9 per cent, was the most frequent serious reaction. Such severe reactions are almost always associated with parenteral administration.

Tetracycline is also clinically effective in primary atypical pneumonia.[3]

The tetracyclines (e.g., TETREX) have the advantage of a broad range of antimicrobial activity and low toxicity. And in addition, the physician does not have to trouble himself or his patients with repeated blood studies when he prescribes TETREX. Minor reactions such as gastric upsets or mild skin rashes occur occasionally. The most serious side effects are staphylococcal and monilial overgrowth, but these are rare and can be adequately controlled.

No one would deny that appropriate antibiotic therapy has greatly reduced morbidity and saved many lives of patients with bacterial pneumonia. Nevertheless, general supportive measures in the care of patients remain important even today. Especially in the desperately ill patient, antibiotics are not considered as substitutes for the individual evaluation, clinical observation and judgment of the physician.

Some Micro-organisms Susceptible[a] *to Tetracycline* (TETREX)[b]

Streptococcus; Staphylococcus; Pneumococcus; Gonococcus; Meningococcus; *C. diphtheriae; B. anthracis; E. coli*; Proteus; *A. aerogenes; Ps. aeruginosa; K. pneumoniae;* Shigella; Brucella; *P. tularensis; H. influenzae; T. pallidum;* Rickettsiae; Viruses of psittacosis and ornithosis, lymphogranuloma inguinale, primary atypical pneumonia; *E. histolytica; D. granulomatosis.*

a Some strains are not susceptible.

b Table adapted from Goodman, L. S., and Gilman, A.: The Pharmaceutical Basis of Therapeutics. 2nd edition, New York, The Macmillan Co., 1956, pp. 1322-1323.

References: 1. Wood, W. E., Jr.: In: A Textbook of Medicine. Edited by Cecil, R. L., and Loeb, R. F., 9th edition, Philadelphia, W. B. Saunders Co., 1955, p. 145. 2. Welch, H.; Lewis, C. H.; Weinstein, H. I., and Boeckman, B. B.: Severe reactions to antibiotics. A nationwide survey. Antibiotic Med. & Clin. Ther. 4:800 (Dec.) 1957. 3. Keefer, C. S.: The choice of an anti-infective agent. In: Drugs of Choice, 1958-1959. Edited by Walter Modell, St. Louis, The C. V. Mosby Co., 1958, p. 135.

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Coordinating the Attack on Cancer

(Continued from Page 658)

medical societies. Young physicians and dentists from Michigan are among the hundreds who have received specialized training in the field of cancer through the American Cancer Society's Clinical Fellowship Program, in which the Society has invested more than $4 million during the past 12 years. A program of advanced clinical fellowships was also initiated last year.

Physicians and dentists from the Michigan Cancer Coordinating Committee and its member professional societies in turn help to shape the American Cancer Society's professional and public education programs through their participating as volunteers on the Society's national, division and local committees. These doctors recognize the need to develop and use allied resources outside the profession if the maximum in cancer education and control is to be achieved.

Through their broad public contact, the member agents of the Michigan Cancer Coordinating Committee have been powerful allies able to strengthen the Michigan physician's effectiveness in cancer detection and control. This has been done by helping to bring the physician and a well-informed, receptive patient together ("Lives are saved where people are") which results in a vast public education program carried by all media. One American Cancer Society film, "Time and Two Women," alone has brought thousands of women in Michigan to their doctors for cancer examinations.

The Michigan Cancer Coordinating Committee was created on the premise that effective control over cancer will come from a *coordinated* effort by all who are interested in the problem. The statistics and the nature of cancer are such that this should include everyone. The agencies of the Michigan Cancer Coordinating Committee seek therefore to synthesize the common interests they represent into a knockout blow at cancer.

Readers of THE JOURNAL of the Michigan State Medical Society are invited to address the Michigan Cancer Coordinating Committee, Box 539, Lansing 3, Michigan, for further information regarding its program and the resources of its member agencies.

HARRY M. NELSON, M.D., Detroit,
Chairman, Michigan Cancer Coordinating Committee

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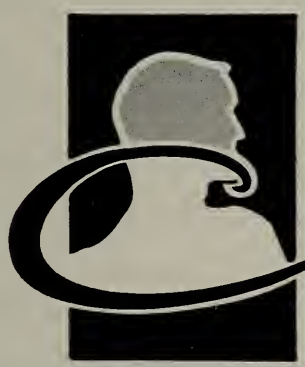

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Obstetrical Brevits

Virus Diseases—Their Effects on Pregnancy Michigan Maternal Mortality Study

Influenza.—From May 17, 1957, to February 4, 1958, 16 pregnant women died in Michigan, all of whom displayed symptoms characteristic of virus pneumonia. Post-mortem examinations of 12 of these patients confirmed the diagnosis of broncho-pneumonia or diffuse pneumonitis. In 1 of these, Virus A Group A, Asian strain, was identified. In 4 others, the examining pathologist stated that influenza was the etiologic factor.

Fifteen of these deaths took place in 1957, 14 between October 3 and November 16, the height of the influenza epidemic. These accounted for 11.2 per cent of the maternal deaths in 1957. The MSMS Maternal Health Committee is concerned about what appears to be a particular susceptibility of pregnant women to influenza.

Poliomyelitis.—From 1955 to 1957 there were no maternal deaths due to poliomyelitis. This is undoubtedly an indication of the effectiveness of the immunization program for young adults and the quite routine practice, in recent years, of vaccinating pregnant women against this disease. The good results obtained by routinely vaccinating pregnant women against poliomyelitis suggests that similar prophylactic vaccination against influenza should be considered.

German Measles.—In 1956 a progressive study of the effects of German measles on pregnancy was undertaken. Questionnaires were prepared and mailed to the chairmen of maternal health committees or to the secretaries of county medical societies. They were requested to announce the project to the membership of their societies and ask that cases in which Rubella complicated pregnancy be reported to them, giving the name of the patient, the month of pregnancy in which the disease occurred, the name of the attending physician, and whether or not the diagnosis of German measles had been confirmed by a physician. This data was to be recorded on the questionnaire and returned to the Michigan Department of Health.

Seventy-seven cases of German measles complicating pregnancy were reported, 56 of which were diagnosed by physicians. The month of pregnancy in which the disease occurred was not mentioned in 6 cases.

One year later the physicians who attended these patients were contacted by letter to determine the outcome of each pregnancy and the condition of the infant. The accompanying tables give the results of the investigation.

Since spontaneous abortion occurred in 6.5 per cent of the cases, a rate lower than the normally expected incidence of 10 per cent, these can be disregarded. Excluding the spontaneous abortions, the incidence of congenital defects was 8.3 per cent. No therapeutic abortions because of this complication were reported.

TABLE I. RUBELLA COMPLICATING PREGNANCY
Michigan, 1956

	Number
Cases reported	77
Cases physican diagnosed	56
Congenital defects found	6
Spontaneous abortion	5

Infectious Hepatitis.—There have been 18 maternal deaths that have been attributed to infectious hepatitis since the beginning of the Maternal Mortality Study in 1950. Curiously, 9 occurred during the period 1950 through 1953 and 9 in the period 1954 through 1957.

Of these 18 pregnancies, in only 3 was a living infant obtained. In 10 cases stillborn infants were delivered, in 4 the fetus was undelivered when the mother died, and 1 patient aborted.

TABLE II. INCIDENCE OF CONGENITAL DEFECTS ACCORDING TO TRIMESTER OF PREGNANCY IN WHICH RUBELLA OCCURRED
Michigan, 1956

No. of Defects	Trimester	Rubella Confirmed by Physician
5	1	4
1	2	1
0	3	0

Other Virus Diseases.—Other virus diseases complicating pregnancy are believed by some to have deleterious effects on the offspring; for example, cytomegalic inclusion cystic disease, poliomyelitis, mumps, chicken pox. Only by applying similar progressive studies to other virus diseases will a definite answer be found.

It is urged that where there is such a complication during pregnancy, the name of the patient. the attending physician, the manner in which the diagnosis was reached and the month of pregnancy in which the complication occurred be reported to Charles A. Behney, M.D., Maternal Health Consultant, Michigan Department of Health, Lansing 4.

Upper Peninsula Meeting Set

The 67th annual scientific meeting of the Upper Peninsula Medical Society will be held June 17-18 at Escanaba, announces William A. LeMire, M.D., president.

This year, the event will be held at the House of Ludington in Escanaba with the Delta-Schoolcraft Medical Society as the host group.

The Woman's Auxiliary to the Upper Peninsula Medical Society also will meet.

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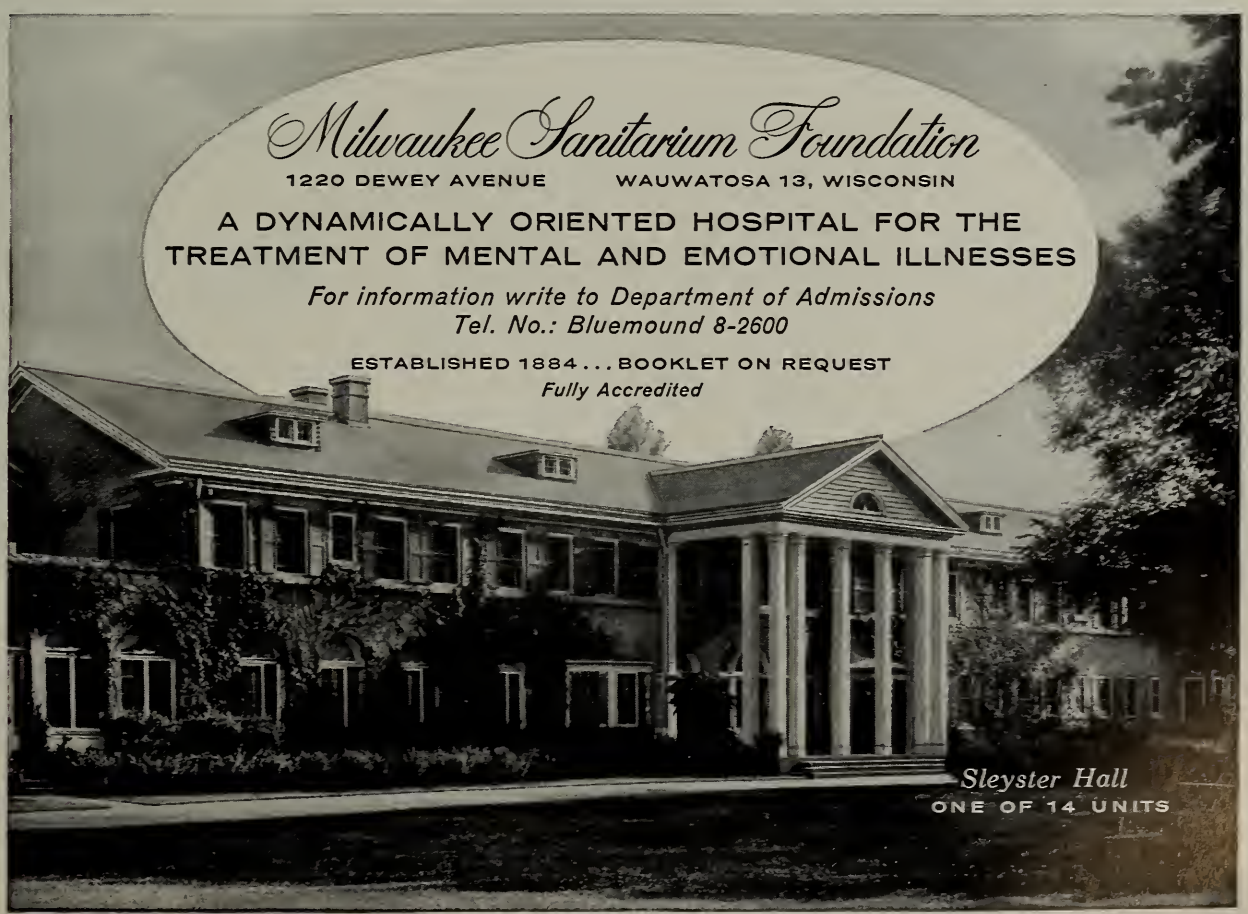


IN MEMORIAM

CHARLES H. CLIFFORD, M.D., fifty-eight, Detroit industrial surgeon, died February 1.

A 1924 graduate of the University of Toronto, Doctor Clifford had practiced medicine in Detroit for thirty-five years. He was on the staffs of Detroit Memorial and Grace hospitals and was a Fellow of the International College of Surgeons.

Doctor Clifford was active in the Detroit Rotary Club, University of Toronto Alumni and the Plum Hollow Golf Club.

ROBERT K. DIXON, M.D., sixty-one, a retired Detroit physician, became ill while vacationing in New Orleans and died there, February 18.

Doctor Dixon, a nationally-known gastroenterologist and former consultant to the Mayo Clinic, practiced medicine in Detroit from 1946 to 1958. He served on the staffs of Mt. Carmel and New Grace, Providence and Beaumont hospitals.

He was a lieutenant colonel in the Air Force during World War II and had served as flight surgeon for United Air Lines.

CHARLES F. DuBOIS, M.D., seventy, practicing Alma physician for forty years, died January 28.

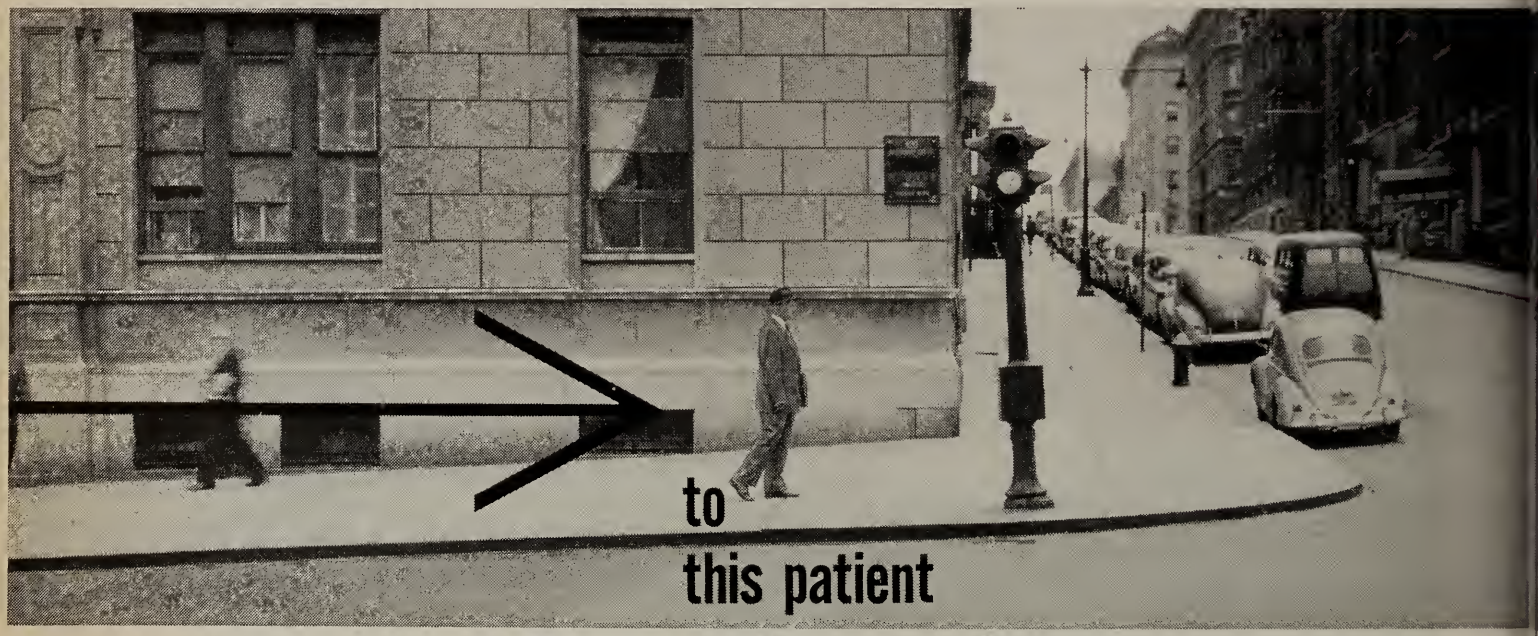
Born in Brainerd, Minnesota, Doctor DuBois attended the University of North Dakota and obtained his M.D. from the Medical University of Chicago, Illinois. He interned in Harper Medical College in Detroit. Doctor DuBois was a veteran of World War I.

For the past 12 years he had served the city of Alma as its health officer, and had held that same post at varying times in excess of 25 years. He served as superintendent of the First Presbyterian church school for many years, and was an elder of that church at the time of his death. He also was a member of the board of trustees for Alma College, was medical consultant for Northwood College, member of the board of directors for the Bank of Alma, had long been on the staff of the former Smith Memorial hospital and was currently a staff member at Gratiot Community hospital. Doctor DuBois had recently received a certificate of merit for his service as an examiner for the Gratiot Draft Board.

Memberships included F & A M Lodge No. 244 of Alma and the Consistory.

JOHN HOOKEY, SR., M.D., sixty, a practicing Detroit area dermatologist, died February 11.

Doctor Hookey, a native of Natrona, Pa., was graduated from the University of Michigan medical school in 1924. He



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received his dermatology training at the Mayo Clinic in Rochester, Minn.

In addition to many professional and civic affiliations, he was an active member of the Detroit Players.

EVERT W. MEREDITH, M.D., sixty-one, a former Port Huron internist, died February 15.

Doctor Meredith was born in Sisterville, W. Va. He was a graduate of Ohio State University in 1918 and Johns Hopkins University in 1923. Having served his internship and residency in Henry Ford Hospital, Doctor Meredith began his private practice in Port Huron in 1927.

Doctor Meredith was Chief of Staff of Port Huron Hospital from 1946 to 1947 and was a member of the Hospital Board of Trustees from 1946 through 1948. He was on the staff of Mercy Hospital and a life member of Port Huron Hospital.

He was a past president of the St. Clair County Medical Society and a member of the Port Huron Rotary Club.

CALVIN S. PURDY, M.D., eighty-two, Buckley physician for fifty-eight years, died February 19.

Doctor Purdy was born in Ohio and was the youngest student, at twenty-five, ever to graduate from Saginaw Medical College. During the early years of his practice, he traveled long distances on snowshoes to treat lumberjacks and Indians. He was also a widely known authority on American Indian lore and had collaborated to write several books on the subject.

Doctor Purdy practiced in Ludington and Scottville following graduation in 1903 and moved to Wexford county in 1904, where he remained. He owned and operated Purdy's Country drug store.

He estimated that he had assisted in delivery of 5,000 babies in the Wexford area from 1904 to 1958.

ADOLPH T. REHN, M.D., fifty-two, medical superintendent of the Lapeer State Home and Training School, died February 11.

Doctor Rehn, a native of Detroit, attended Northeastern High School there and was a 1934 graduate of Wayne State University College of Medicine. He interned at Receiving Hospital in Detroit.

Doctor Rehn was superintendent of the Lapeer State Home for thirteen years, after serving five years as assistant. He had previously been senior physician at the Newberry State Hospital.

KARL F. SEARLES, M.D., fifty, a Flint general practitioner since 1946, died February 21, 1960.

Doctor Searles was born in St. Johnsbury, Vt., and received his bachelor of science degree in 1931 and his medical degree in 1934, both from the University of Vermont.

After completing his internship in 1935 at Waterbury, Conn., Hospital, he took a one-year residency at Children's Hospital, Detroit, Michigan.

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COMMUNICATIONS

Mr. William J. Burns,
Executive Director,
Michigan State Medical Society.

Dear Bill:

I believe it might be of interest to our members, both old and young, that for my recent disability, incurred while working in the yard of our cottage on Lake Charlevoix, August 27, 1957, the group insurance policy of the Michigan State Medical Society paid me for twenty-four months' complete disability and the group insurance policy of the Ingham County Medical Society paid me for eighteen months' complete disability.

Therefore, I believe you will agree with me that "it pays to belong" and "I am *not* from Milwaukee, but I ought to know" because I was one of the old members who advocated and voted for a group accident and sickness insurance program for both the Ingham County Medical Society and the Michigan State Medical Society. If any member doubts the value of the group insurance policy for the doctors, "ask the man who owns one."

Wishing our society much Happiness, Health and Prosperity through all the New Year,

Cordially and fraternally,

J. EARL MCINTYRE, M.D.

P.S. I am informed that since January 1, 1960, a new and better policy is available which pays full benefits for the remainder of the insured member's life so long as he is unable to practice medicine.

Lansing 33, Michigan
February 1, 1960

Doctors, Coaches to Meet

The University of Michigan has invited high schools and medical societies throughout Michigan to attend an Athletic Injury Conference, May 6-7. The conference will focus the attention of doctors of medicine, coaches and school administrators upon the health and safety problems of high school and college athletes. It is being co-sponsored by the U-M Medical Center and Department of Athletics.

Carl E. Badgley, M.D., head of orthopedic surgery at the U-M and chairman of the May 6 medical program, reports that inquiries and advance registrations for the conference are being handled by William Bender, Jr., of the U-M Medical Center.

Michigan Doctors' Day Set

The second annual Michigan Doctors' Day will be held at the University of Michigan Medical Center, Saturday, May 14.

The day-long program will include a "live" surgical procedure to be carried on the hospital's closed-circuit color television system.

Clinical programs, scientific talks and an extensive variety of special exhibits showing modern developments in research and clinical medicine will be included in the day's activities. There will also be a luncheon and a number of tours through the facilities of the Medical Center.

Michigan Doctors' Day is the University's annual opportunity to play host to all general practitioners and specialists who wish to become better acquainted with the staff and resources of the U-M Medical Center. It is open to all doctors in the state.

Chairman for the program this year is John R. G. Gosling, M.D., assistant professor of obstetrics and gynecology.

POSTGRADUATE OVERSEAS—Duke University School of Medicine for the fifth time is offering doctors a chance to combine postgraduate study with an overseas trip. The Hamburg-American ship, the T. S. Ariadne, will sail from Wilmington, North Carolina, on June 5, or from New York on June 6 and will terminate the cruise in Hamburg, Germany, on June 28, so that members of the cruise may continue in Europe or return home with an allowance of $200 for passage home. Lectures will be given on shipboard on various subjects in medicine, pediatrics and thoracic surgery. For further information contact Allen Travel Service, Incorporated, 565 Fifth Ave., New York 17.

ELECT MICHIGAN M.D.'S—The Eighth Annual Meeting of the Cardiovascular Surgeons' Club was held at Children's Hospital and Highland Park General Hospital, Detroit, in January under the presidency of Sherwood Winslow, M.D., of Battle Creek. The annual banquet was held at Grosse Pointe Club.

Officers elected for the coming year are: Egbert Fell, M.D., Chicago, president; Alexander Blain, III, M.D., Detroit, president-elect; William Riker, M.D., Chicago, secretary; and James B. Blodgett, M.D., Detroit, treasurer.

The 1961 meeting will be held in January in Chicago.

M.D. SONS IN SPOTLIGHT—Three sons of Michigan doctors were honored at the Student Research Forum in February at the University of Michigan Medical School.

Each year, the medical students' honorary society, Alpha Omega Alpha, sponsors the Forum. This year, 12 undergraduate medical students were invited to present a formal paper on his own medical research—one of the highest honors for an undergrad.

The three sons of Michigan doctors so honored were Philip J. Howard, Jr., son of Philip J. Howard, Sr., M.D., Detroit; Michael G. Chen, son of Calvin H. Chen, M.D., Detroit, and Clifford Colwell, son of Clifford W. Colwell, M.D., Flint.

APPOINT JACKSON M.D.—John W. Rice, M.D., Jackson, has been appointed a member of the Commission on Hospitals of the American Academy of General Practice.

M.D. IN TOP OFFICE—Frederick C. Swartz, M.D., Lansing, chairman of the AMA Committee on Aging, is the new president of the Michigan Society of Gerontology. He was elected at the recent third annual meeting of the organization held at Michigan State University. Among the speakers at the conference was Silas C. Wiersma, M.D., Muskegon, a member of the MSMS geriatrics committee.

SPEAKER—M. K. Newman, M.D., Detroit, gave a paper entitled, "Prognosis in Muscular Dystrophy," at the Regional Meeting of the American College of Physicians, Ann Arbor, in December. He also delivered a paper before the Oakland County Dental Society in January about "Occupational Hazards on a Neuromuscular Basis."

HEAR SENATOR CLARK—Narcotic addiction, delinquency and effects of segregation on child development were discussed by 4,000 mental health specialists and clinicians during the 37th annual meeting of the American Orthopsychiatric Association in February at Chicago.

Prominent speakers included U. S. Senator Joseph S. Clark of Pennsylvania, chairman of the U. S. Senate Sub-Committee on Juvenile Delinquency.

COMMUNICATIONS SPEAKER—J. P. Gray, M.D., Detroit, discussed technical writing at a communications seminar sponsored in Detroit in February by the American Women in Radio and Television, Theta Sigma Phi and the Women's Advertising Club of Detroit.

SEEK MEA SYMBOL—Art students in Michigan colleges, universities and special art schools are helping the Michigan Epilepsy Association to find an insignia to represent the agency and the work it is doing in Michigan. If an appropriate symbol is found, the MEA will use it on posters, stationery and other printed materials.

The contest deadline will be April 20.

HONOR DETROIT M.D.—Harry M. Nelson, M.D., Detroit, has been appointed chairman of the American Cancer Society's Committee to Advance the Worldwide Fight Against Cancer. Working through the International Union Against Cancer, an affiliate of the World Health Organization, the Committee headed by Dr. Nelson, will encourage international cooperation in the study and control of cancer. Dr. Nelson, past president of the American Cancer Society, is chairman of its Southeastern Michigan Committee and also is chairman of the Michigan Cancer Coordinating Committee.

NAME ACS DIRECTOR—John Paul North, M.D., clinical professor of surgery at the University of Texas Southwestern Medical School, will become director of the American College of Surgeons January 31, 1961. He will succeed Paul R. Hawley, M.D., the director since 1950.

Dr. North is a fellow of the American College of Surgeons and chairman of the subcommittee on traffic safety.

OFFER FELLOWSHIPS—Six additional Fellowships for Residents in Ophthalmology will be awarded July 1, 1960, by the Guild of Prescription Opticians of America. Each Fellowship is for a total of $1,800, payable in monthly stipends over the period of a three-year Residency. Applications must be received by May 15.

(Continued on Page 670)

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(Continued from Page 668)

NATIONAL GROUP ELECTS—Daniel C. Riordan, M.D., Tulane University School of Medicine, is the new president of the American Society for Surgery of the Hand. He was installed at the recent annual meeting in Chicago.

George S. Phalen, M.D., Cleveland, was chosen president-elect.

CONFERENCE ON CONGENITAL MALFORMATIONS—The International Conference on Congenital Malformations will be held in London, July 18-22, under the sponsorship of the National Foundation. Further information may be obtained from Stanley E. Henwood, Executive Secretary, International Medical Congress, Ltd., 120 Broadway, New York.

WAYNE RECEIVES GRANTS—Grants totaling $302,323 were received from the U. S. Public Health Service National Institutes of Health by the Wayne State University Board of Governors at its January and February meetings.

The February grants also included $26,497 from the Michigan Cancer Foundation.

RECEIVE ADA PRIZE—A research paper by A. C. Curtis, M.D.; L. F. Montes, M.D., and Burton L. Baker, Ph.D., all of Ann Arbor, was awarded third prize in the annual American Dermatological Association essay contest. The research was about "The Cytology of the Large Axillary Sweat Glands in Man."

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HONOR DETROIT M.D.—Lawrence Reynolds, M.D., *(left)*, Detroit radiologist, receives congratulations from Earl E. Barth, M.D., Chicago, president of the American College of Radiology, following presentation of the College's Gold Medal to Dr. Reynolds. Dr. Reynolds is the out-going president of the radiological organization. The Gold Medal was awarded Dr. Reynolds "for outstanding contributions to the College . . . and the profession for which it stands." Presentation took place in New Orleans during the annual convocation February 5. The 1961 meeting of the College will be held in Chicago, February 8-11.

ON ACS PROGRAM—Charles G. Child, III, M.D., and Cameron Haight, M.D., both of Ann Arbor, had positions of leadership on the program for the sectional meeting of the American College of Surgeons during March at Boston.

NAMED MARKLE SCHOLAR—John R. G. Gosling, M.D., of the University of Michigan Medical Center, has been selected one of 25 U. S. scholars to receive John and Mary Markle Fellowships in Science.

The award, presented in New York City March 2, includes a five-year grant of $6,000 a year.

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports the following topics covered during the month of February on the weekly Sunday morning program over WJBK-TV in Detroit: Heart, Medical Associates, National Conference on Rural Health of the American Medical Association and also Industrial Nursing.

WALTER R. PARKER LECTURE—Tuesday evening, April 26, at St. Joseph Hospital, Ann Arbor, a joint meeting will be held of the Detroit Ophthalmological Club and the Detroit Ophthalmological Society.

The Michigan Triological Society and the Ophthalmologic Postgraduate Conference Dinner will be at St. Joseph Mercy Hospital Reception Hall at 6:30; the lecture will be given by Windsor S. Davies, M.D., at 8 p.m. in the amphitheatre.

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MEDICAL MEETINGS U.S.A.

West Virginia Academy of Ophthalmology and Otolaryngology Annual Meeting, April 10-12, Greenbrier Hotel, White Sulphur Springs, West Virginia; for information contact the secretary, A. C. Esposito, M.D., First Huntington National Bank Building, Huntington, West Virginia.

The Industrial Health Conference (which includes the 25th annual meeting of the Industrial Medical Association), April 26-28, new War Memorial Auditorium of Rochester, New York.

Fourth Post-Graduate Course on Fractures and Other Trauma, Chicago Committee on Trauma of the American College of Surgeons, April 27-30, John B. Murphy Memorial Auditorium, 50 East Erie Street, Chicago.

Second International Symposium of the Deborah Hospital, April 28-30, Bellevue Stratford Hotel, Philadelphia.

The 69th Annual Meeting of the Arizona Medical Association, May 4-7, Safara Hotel, Phoenix.

The Student American Medical Association, May 5-7, Statler-Hilton Hotel, Los Angeles.

The Forty-Fifth Session of the Trudeau School of Tuberculosis and Other Pulmonary Diseases, June 6-24, Saranac Lake, New York.

GRANTS FOR ARTHRITIS research have been awarded to (l-r) George W. Jourdian, M.D., Mrs. Chava Spivak and C. William Castor, Jr., M.D., all of the Rackham Arthritis Research Unit of the University of Michigan Medical School. The research fellowships for the three medical investigators came from the national Arthritis and Rheumatism Foundation. The awards were announced by the foundation's Michigan chapter, also prominent in arthritis research. The three are seeking to attempt to identify and measure the functional capacities of connective tissue cells, particularly those found in the joints.

PAN AMERICAN MEDICAL ASSOCIATION— The thirty-fifth Anniversary Congress will be held in Mexico City, May 2 to 11, 1960. Fifty branches of medical practice will be represented. For program, write the Executive offices: 745 Fifth Ave., New York 22, N. Y.

OFFERS BULLETIN—The National Health Committee, Inc., 135 E. Forty-Second Street, New York, has published an arteriosclerosis bulletin by eight nationally known doctors, including Paul Dudley White, M.D. The bulletin is prepared as a public service for use of patients in cooperation with their Doctors. The Committee will send copies for use of physicians and patients.

RESEARCH ON CARE OF INJURED—A grant of $146,275 by The John A. Hartford Foundation, Inc., New York, to the American College of Surgeons to inaugurate a program for improving the medical management of the surgical and injured patient is announced by Ralph W. Burger, president of the Foundation, and I. S. Ravdin, M.D., chairman of the Board of Regents of the College.

"This grant will permit the College to enlarge its long-established activities in the field of trauma, both at the national and local levels," stated Dr. Ravdin. The National Committee on Trauma and 241 state and local trauma committees will be able to work more effectively in a concentrated effort to determine patterns of care of the injured patient, and to inaugurate improvements in this care, Dr. Ravdin explains.

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THE MENTAL HEALTH RESEARCH INSTITUTE, dedicated recently at the University of Michigan, will enable the staff to accelerate its study of the basic elements of mental illness. State funds provided more than $750,000 of the costs with the U. S. Public Health Service contributing the balance for the $1,500,000 institute building. The McGregor Fund, Detroit, contributed $100,000 for special equipment.

LIST ACP COURSES—The American College of Physicians has announced its postgraduate courses for the spring of 1960. These courses include:

"Dermatology for the Internist," April 25-29, 1960, University of Michigan Medical Center, Ann Arbor.

"Early Detection and Prevention of Disease," May 9-13, 1960, University of Pennsylvania School of Medicine, Philadelphia.

"Internal Medicine," June 20-24, 1960, Indiana University School of Medicine, Indianapolis.

Registration forms on request from the College, 4200 Pine Street, Philadelphia 4.

YALE SCHOOL 150 YEARS OLD—The Yale School of Medicine will celebrate a century and a half of existence, October 28 and 29, 1960. The occasion will be marked by meetings, exhibitions and addresses. Among a notable group of guest speakers will be Sir Howard Florey of Oxford, England.

ARE BIRTH ABNORMALITIES ALWAYS HARMFUL?—James L. Wilson, M.D., chairman of the Pediatrics department, University of Michigan Medical Center, says not. Genius might well be a congenital abnormality. He feels that future research into birth disorders might unlock the secret of the "birth genius" while also finding means to correct serious physical deficiencies.

LEPTOSPIROSIS—The National Library of Medicine has just issued a bibliography on Leptospirosis in Literature from 1957-1959. Complimentary copies may be obtained by writing to Acquisition Division, National Library of Medicine, Washington 23, D. C.

CEREBRAL PALSY—The University of Michigan Medical Center has received a $10,422 grant from the United Cerebral Palsy Association to support the second year of a study concerning the effects of drugs on the brain, including tranquilizers, anticonvulsants, hypnotics and muscle-

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relaxant drugs. The work thus far has helped pin-point specific parts of the brain which are affected by drug action.

MENTAL ILLNESS CAUSE—Research work now being undertaken by the University of Michigan's Mental Health Research Institute in co-operation with Ypsilanti State Hospital may determine whether mental illness is caused by emotional or organic factors. This is the conclusion reached by Roland Berg, *Look* magazine medical writer, in an extensive story on psychiatry published in a recent issue.

CHRONIC DISEASE CONTROL—A two-weeks Institute on Chronic Disease Control will be held June 13-24, at the University of Michigan School of Public Health. Co-sponsors of the Institute with the School are: Directors of Chronic Disease Teaching Programs of Schools of Public Health, Association of State and Territorial Chronic Disease Program Directors, Michigan Department of Health, and the Public Health Service.

Application for participation must be received not later than May 15. Additional information may be obtained from The Director of Continued Education, School of Public Health, University of Michigan, Ann Arbor.

TRAVEL SOCIETY ELECTS—At the annual business meeting of the Michigan Obstetrical and Gynecological Travel Society, February 2, the following officers were elected for the coming year: president, Jesse Ketchum, M.D., Detroit; vice-president, Lee Stevenson, M.D., Detroit; secretary-treasurer, Robert Dustin, M.D., Birmingham, and assistant secretary, Charles Darling, M.D., Detroit.

OFFER CANCER FILMS—Forty-one educational films for fighting cancer are described in a new catalog issued by the American Cancer Society for the use of clubs and organizations.

The Society's Southeastern Michigan Committee is circulating the new listing of its 16mm film library to groups throughout the tri-county area in an effort to spur bookings and help cut the 5,500 cancer deaths estimated here for 1960.

Groups interested in obtaining this free catalog of films should contact the Society at 2895 West Grand Boulevard in Detroit (Trinity 2-2277).

M.D. LOCATIONS—Through Feburary 29, 1960

Placed by Michigan Health Council: Robert I. Crawford, M.D., Detroit; C. A. Johnson, M.D., Shelby-New Era Area.

Assisted by Michigan Health Council: Robert Silver, M.D., Royal Oak.

MSMS has liaison with over a hundred different health organizations in Michigan.

Michigan Authors

Carl E. Badgley, M.D., Ann Arbor, "Sports Injuries of the Shoulder Girdle," *Journal of the American Medical Association,* January 30, 1960. (This article was read in the Symposium on Athletic Injuries before the Joint Meeting of the Section on General Practice, the Section on Orthopedic Surgery, and the Section on Physical Medicine, at the 108th Annual Meeting of the American Medical Association, Atlantic City, June 12, 1959.)

M. K. Newman, M.D., Detroit, "Physical Medicine and Rehabilitation In Legal Medicine," *Annals of Rehabilitation,* September, 1959.

John W. Keyes, M.D., Gerald M. Breneman, M.D., Hernan Alvarez, M.D., Detroit, "Hydrochlorothiazide In The Treatment of Congestive Heart Failure," *Henry Ford Hospital Medical Bulletin,* September, 1959.

James Barron, M.D., Detroit, "The Control of Postoperative Pain by the Use of Local Anesthetic Pumps," *Henry Ford Hospital Medical Bulletin,* September, 1959.

M. K. Newman, M.D., Detroit, "Symposium on Designs for Retirement," *Public Health Reports,* December, 1959, U. S. Department of Health, Education and Welfare.

Joseph L. Ponka, M.D., Brock E. Brush, M.D., J. DeWitt Fox, M.D., Detroit, "Differential Diagnosis of Carcinoma of the Sigmoid and Diverticulitis," *Journal of the American Medical Association,* February 6, 1960.

Joseph A. Rinaldo, Jr., M.D., James A. Marvel, M.D., Gerald Fine, M.D., and **Elizabeth Watson,** Detroit, "Exfoliative Cytology in the Clinical Evaluation of Gastric Ulcer," *Henry Ford Hospital Medical Bulletin,* September, 1959.

John A. Churchill, M.D., Harold F. Schuknecht, M.D., Detroit, "The Relationship of Acetylcholinesterase In The Cochlea to the Olivocochlear Bundle," *Henry Ford Hospital Medical Bulletin,* September, 1959.

Charles Nwabueze Lemeh, M.D., Ann Arbor, "A Study of the Development and Structural Relationships of the Testis and Gubernaculum," *Surgery, Gynecology and Obstetrics,* February, 1960.

Gerald T. Havey, M.D., C. E. Rupe, M.D., Detroit, and **Robert I. McClaughry, M.D.,** Washington, D. C., "Analbuminemia With The Nephrotic Syndrome," *Henry Ford Hospital Medical Bulletin,* September, 1959.

Kenneth W. Carrington, M.D., James A. Taren, M.D., and **Edgar A. Kahn, M.D.,** Ann Arbor, "Primary Repair of Compound Skull Fractures in Children," *Surgery, Gynecology and Obstetrics,* February, 1960.

A. E. Lamberts, M.D., "Tic Douloureux," *E.E.N.T. Digest,* January, 1960 (reprinted from THE JOURNAL of the Michigan State Medical Society.)

James D. Fryfogle, M.D., Robert Hornbeck, M.D., Donald Mehan, M.D., Walter Stenborg, M.D., Detroit, "Ruptured Diaphragmatic Hernia (Traumatic)," *The Journal of the International College of Surgeons,* January, 1960.

John V. Balian, M.D., Detroit, and **Harold F. Falls, M.D.,** Ann Arbor, "Congenital Vascular Weils In The Vitreous," *AMA Archives of Ophthalmology,* January, 1960.

G. H. Agate, M.D., Lansing, and **G. C. Brown, Sc.D.,** Ann Arbor, "Laboratory Data on the Detroit Poliomyelitis Epidemic—1958," *Journal of the American Medical Association,* February 20, 1960.

Khurshid A. Mian, M.P.H., Ann Arbor, "Isolation of Enteropathogenic Escherichia Coli From Household Pets," *Journal of the American Medical Association,* December 5, 1959.

W. W. Coon, M.D., P. W. Willis, III, M.D., and **I. F. Duff, M.D.,** Ann Arbor, "Anticoagulant Therapy," *GP,* November, 1959.

Edward S. Mercantini, M.D., Ottawa, Ont.; and **Robert J. Schoenfeld, M.D.,** Birmingham, "Alopecia Mucinosa: Two cases in the Same Family," *Canadian Medical Association Journal,* October 1, 1959.

Richard H. Lyons, M.D., Ann Arbor, "The Role of the Modern Hospital in Medical Education," *University of Michigan Medical Bulletin,* October, 1959.

Sidney Friedlaender, M.D., Alex S. Friedlaender, M.D., and **Lawrence Weiner, Ph.D.,** Detroit, "Gamma Globulin in the Management of Asthma Associated with Infection," *The American Journal of the Medical Sciences,* July, 1959.

Alex S. Friedlaender, M.D., and **Sidney Friedlaender, M.D.,** Detroit, "Dexamethasone: A New Corticosteroid—Its Effect in Allergic Disease," *Annals of Allergy,* September-October, 1959.

EDITORIAL COMMENT

The Federal Employees Health Act —Its Significance for Medicine

(Blue Shield Medical Care Plans, Inc.)

The Federal government, as an employer—the largest employer in the U.S.A.—is about to provide medical care security to some 4 million Federal employes and their dependents.

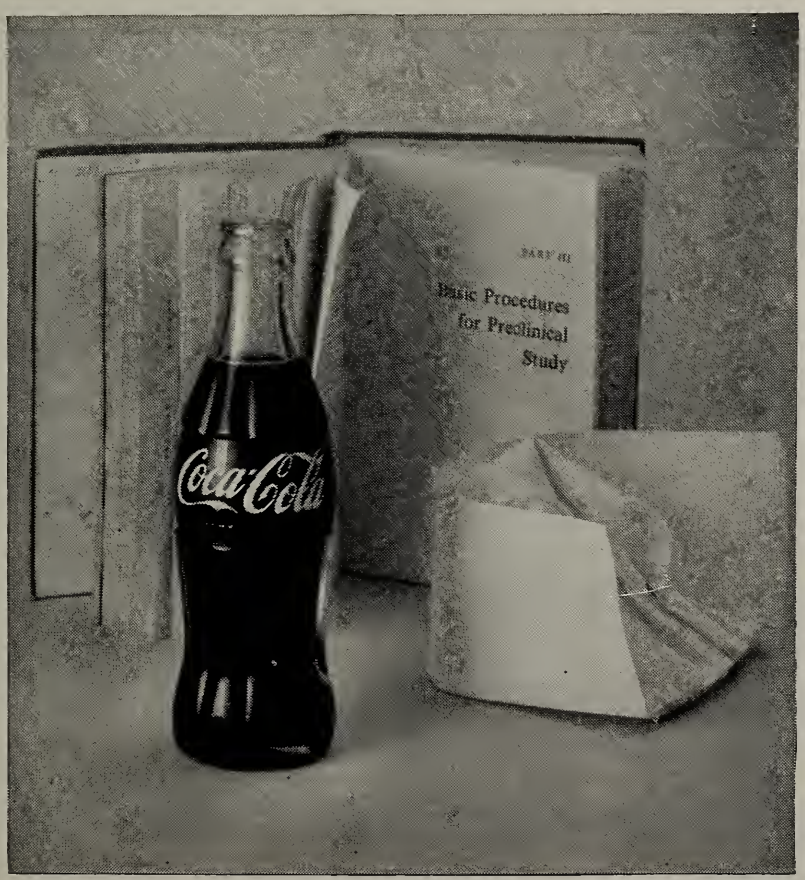
Under the new Health Benefits Act passed by Congress last September, government workers will begin to enroll about June 1, 1960 in one or another of four types of hospital and medical care programs: (1) a service benefit plan (Blue Cross-Blue Shield); (2) an indemnity plan (underwritten by an insurance company); (3) an employe organization plan (of which a considerable number have been set up by Federal employe organizations); (4) a comprehensive "closed panel" plan (such as the Kaiser Health Plan or H.I.P.)—where such programs exist. Federal contributions will commence in July toward the cost of whatever plan may be selected by each Federal worker.

Each employe will have the utmost freedom to choose among the specific plans to be approved by the U. S. Civil Service Commission in negotiations now going on between the Commission and the "carriers" of the four types of program specified in the Act.

Our government has shaped its programs in accordance with the mutual desire of its employes and their doctors for a free choice of physician and plan.

To meet the natural requirements of the Civil Service Commission for a reasonable degree of uniformity among the programs offered by the 79 Blue Cross and the 67 Blue Shield Plans, many Plans will have to alter or add to their established benefit provisions. This will call for co-operation among all of us who are providing services to patients under our local Blue Shield Plans.

The significance of the Federal Employe Health Benefits Act for the future of American medicine can scarcely be exaggerated. Under the terms of this act,



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our government will contribute toward the cost of a hospital and medical care coverage program for all Federal employes. Thus, the government as an employer assumes a direct interest in, and responsibility for, the health care of its career servants.

Moreover, the government may be expected to scrutinize the effectiveness of the coverage provided in order to assess the capacity of our voluntary programs to function in an acceptable fashion in meeting the public's need for "prepaid" health services. Thus, our voluntary system of prepayment as well as those dedicated to the support of those programs may be said to be on trial. And if our physician-sponsored programs serve creditably and satisfactorily, the medical profession through its own prepayment plans will have struck a mighty blow for the future of free enterprise and the private practice of medicine.

The Price of Health

(Time, February 22, 1960)

U. S. families spend an average of about $300 a year on health care, and total outlays have increased sharply in recent years. The Health Information Foundation reported this week that analysis of a 1957-58 study showed annual family expenditures at $294, a 42 per cent increase in five years. Physicians' services made up 34 per cent of health-care costs; hospitals, 23 per cent; drugs and medications, 20 per cent; dental services, 15 per cent; miscellaneous (spectacles, other appliances and special nursing), 8 per cent.

Some, but surprisingly little, of the $87 increase since 1952 has been due to rising costs (mainly for hospital services, up 34 per cent). Most of the boost is due, said the foundation, to the fact that many families are using more—and more expensive—medical services.

Commends Hospital's Economy Drive

(From Michigan Hospital Association Bulletin, Volume XIII, Number 11)

In a concurrent resolution, the Legislature highly commended Michigan hospitals for uniting in a search to find ways to bring about economies and improvements in hospital operations.

The resolution offered by Representatives Joseph J. Kowalski and Allison Green praised the Michigan Hospital Association and the Michigan Blue Cross for their joint sponsorship of the Annual Hospital Achievements Contest, the objectives of which are "to obtain from hospitals the best money-saving ideas and methods for streamlining operational efficiency."

The resolution also declared that "every Michigan community be urged to recognize and contribute to the support of local hospitals in their efforts to develop further economies and improvement in hospital care."

The Hospital Achievements Contest—sponsored jointly by the Michigan Hospital Association and its officially approved prepayment plan Michigan Blue Cross—annually offers cash awards totaling $4,000 for the best ideas developed by hospital employes to improve patient care and save money for more efficient operations.

A total of 231 entries marked the 1959 competition and all have been compiled in a 200 page manual distributed to all 226 MHA member hospitals.

This is one of the major aims of the competition," A. Kent Schafer, Michigan Hospital Association president, explained. "It gives all of our hospitals a chance to study and if feasible, put into effect the improvements developed by others."

He added that ideas publicized by the two contests thus far, could add up to savings amounting to literally millions of dollars each year and have improved operational efficiency and patient care immeasurably.

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The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

Books Received

THE EMERGENCY SYNDROMES IN PEDIATRIC PRACTICE. By Alfred J. Vignec, M.D., Clinical Professor of Pediatrics, New York University, College of Medicine, New York, N. Y.; Medical Director and Pediatrician in Chief, New York Foundling Hospital, New York, N. Y.; Director of Pediatric Division, St. Vincent's Hospital, New York, N. Y. New York: Landsberger Medical Books, Inc., 1959. Price, $9.00.

AN INTRODUCTION TO THE STUDY OF EXPERIMENTAL MEDICINE. By Claude Berhard. Translated by Henry Copley Green, A.M. Introduction by Lawrence J. Henderson; New Foreword by I. Bernard Cohen, Professor, Harvard University. New York: Dover Publications, Inc., 1959. Price, $1.50.

THE STORY OF DISSECTION. By Jack Kevorkian, M.D. New York: Philosophical Library. Price, $3.75.

THE TEEN-AGE YEARS. A MEDICAL GUIDE FOR YOUNG PEOPLE AND THEIR PARENTS. By Arthur Roth, M.D. Garden City, N. Y.: Doubleday & Company, Inc., 1960. Price, $3.95.

DOCTOR STRAND. By Boris Sokoloff. New York, Washington, Hollywood: Vantage Press. Price, $3.50.

JEWISH MEDICAL ETHICS. A Comparative and Historical Study of the Jewish Religious Attitude to Medicine and Its Practice. By Rabbi Dr. Immanuel Jakobovits. New York: Philosophical Library, 1959. Price, $6.00.

THE EVOLUTION OF MAN'S CAPACITY FOR CULTURE. Six Essays. By J. N. Spuhler, Ralph W. Gerard, S. L. Washburn, Charles F. Hockett, Harry F. Harlow, Marshall D. Sahlins. Summary by Leslie A. White. Arranged by J. N. Spuhler, Department of Anthropology, University of Michigan. Detroit: Wayne State University Press, 1959. Price, $3.50.

WHAT NEXT, DOCTOR PECK? By Joseph H. Peck, M.D. Englewood Cliffs, N. J.: Prentice-Hall, Inc. Price, $3.50.

NOTES OF A SOVIET DOCTOR. By G. S. Pondoev, Honored Physician of the Georgian SSR. Consultants Bureau, Inc., New York. London: Chapman & Hall, Ltd., 1959. Price, $4.95.

DE MAGNETE. By William Gilbert. Translated by P. Fleury Mottelay. New York: Dover Publications, Inc. Price, $2.00.

PAIN AND ITCH NERVOUS MECHANISMS. Ciba Foundation Study Group No. 1 in honour of Professor Dr. Y. Zotterman, M.D., R.V.O. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Maeve O'Connor, B.A. 41 illustrations. Boston: Little, Brown and Company, 1959.

FROM MAGIC TO SCIENCE. Essays on the Scientific Twilight. By Charles Singer. New York: Dover Publications, Inc. Price, $2.00.

STERIC COURSE OF MICROBIOLOGICAL REACTIONS. Ciba Foundation Study Group No. 2, in honor of Prof. Dr. V. Prelog. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Cecilia M. O'Connor, B.Sc. 37 illustrations. Boston: Little, Brown and Company.

A DOCTOR ENJOYS SHERLOCK HOLMES. By Edward J. Van Liere. New York, Washington, Hollywood: Vantage Press. Price, $3.00.

THE CIGARETTE HABIT: A SCIENTIFIC CURE. By Arthur King. New York: Doubleday & Company, Inc., 1959. Price, $2.00.

NEW AND NONOFFICIAL DRUGS. An Annual Compilation of Available Information on Drugs, Including Their Therapeutic, Prophylactic and Diagnostic Status, as Evaluated by the Council on Drugs of the American Medical Association. Philadelphia and Montreal: J. B. Lippincott Company, 1960.

A PRACTICAL GUIDE FOR GENERAL SURGICAL MANAGEMENT. By Julian A. Sterling, M.D., Sc.D.; F.A.A.A.S., F.A.C.G., F.A.C.S., F.I.C.S. et al; Diplomate, American Board of Surgery; Assistant Professor of Surgery, Graduate School of Medicine, University of Pennsylvania; Senior

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Attending Surgeon, Albert Einstein Medical Center; Chief Surgeon, Psychiatric Hospital, Philadelphia. Foreword by Herbert R. Hawthorne, M.D. New York, Washington, Hollywood: Vantage Press. Price, $3.00.

SCHIFFERES' FAMILY MEDICAL ENCYCLOPEDIA. By Justus J. Schifferes, Ph.D., Director, Health Education Council, with a Medical Advisory Board of Eight Doctors: Glidden Brooks, Louis A. Buie, John Gorrell, Richard M. Hewill, Berwyn F. Mattison, Howard Rusk, Ralph F. Sikes, Austin Smith. The New Standard Guide to Health and Medical Care for the Entire Family. Three Books in One. An authoritative Medical Dictionary. An Indispensable First-Aid Manual. A Comprehensive Medical Encyclopedia. Fully Illustrated. New York: Permabooks. Price, $.50.

CLINICAL ORTHOPAEDICS. The Hand. Part 2. By Anthony DePalma, Editor-in-Chief, with the assistance of Associate Editors, the Board of Advisory Editors, the Board of Corresponding Editors. Number Fifteen, Winter 1959. Philadelphia and Montreal: J. B. Lippincott Company, 1959. Price, $7.50.

This volume is a continuation of Volume 13, namely, presenting its lead section around the hand. As before in this series, the mid-section deals with general orthopaedics and the last section with scattered items from here to there.

As noted in the previous reviews of this series, I find all these volumes of great value to the orthopedist and occasional practitioner of orthopaedics alike. This series, collected faithfully, is more helpful than any isolated text, both in regard to keeping current and in securing specific help in management of a given problem.

R.H.A.

INSTRUCTIONAL COURSE LECTURES. The American Academy of Orthopaedic Surgeons. Volume XVI. Editor, Fred C. Reynolds, M.D., St. Louis, Missouri. Illustrated. St. Louis: C. V. Mosby Company, 1959. Price, $16.00.

As many specialty groups do, the American Academy of Orthopaedic Surgeons, Inc., at its annual meeting, conducts a series of instructional courses for its members and guests. This yearly volume is a presentation of selected lectures from the preceding year's meeting.

The subject matter is varied and, of course, differs from year to year. The instructional level is also geared to the postgraduate level and make no pretense to teach the uninitiated. However, the material given here is often much more pertinent and to the point than the same material gathered for inclusion in a textbook with all the generalities that are necessary there.

Surgeons doing any volume of orthopedic work will want this volume each year. The occasional practitioner of orthopaedics will probably not find it helpful enough as a reference work or for aid in the specific treatment of a given problem.

R.H.A.

A DOCTOR'S LIFE OF JOHN KEATS. By Walter A. Wells, M.D. New York, Washington, Hollywood: Vantage Press, 1959. Price, $3.95.

John Keats was trained as a doctor of medicine, licensed and practiced in a desultory way but more successfully that way than in anything else except his writing, and that was not financially rewarding. John Keats tried many things and had many experiences but usually came back to medicine. He died of tuberculosis at an early age. His writings were appreciated mostly after his death. One enjoys the book because of so many problems presented, and such a thorough medical review of his work and life.

LIVING CONSCIOUSLY: THE SCIENCE OF SELF. By John M. Dorsey and Walter H. Seegers. Detroit: Wayne State University Press, 1959. Price, $4.95.

Doctors Dorsey and Seegers have given us a very unusual book written in the first person, telling about the experiences of life, how they were met, and suspicions of things to come. All this has been done very successfully. This is not a book that you sit down to read, but one you pick up and read a little at a time, placing yourself in the authors' experiences, appreciating their problems and solutions. We have thoroughly enjoyed the book and believe other readers will, too. It is full of thought for everyone.

SMOKING AND HEALTH. By Alton Ochsner, M.D. New York: Julian Messner, Inc., 1959. Price, $3.00.

In this monograph, Doctor Ochsner presents a convincing case against smoking. He offers only one defense—to stop smoking and suggests ways of so doing.

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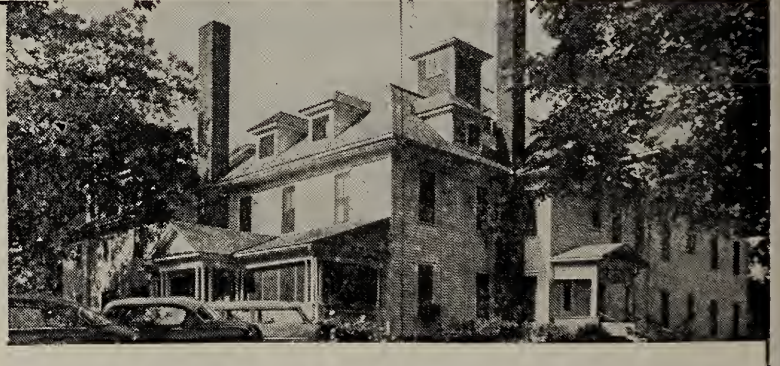

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Real dedication to a cause is demonstrated by Doctor Ochsner's sincere pleas against smoking. His is as a "voice crying in the wilderness." This book is well worth while for those interested in the subject.

R.W.B.

LIVING BEYOND YOUR HEART ATTACK. By Eugene B. Mozes, M.D. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959. Price, $3.50.

Having written many articles for popular consumption in some of the popular magazines, *Coronet, Ladies Home Journal,* and others, as well as a book on sex of teen-agers, Doctor Mozes is now the author of this book for the heart victim.

It is written in an optimistic vein and answers the questions commonly raised by those recovering from or threatened with a heart attack. The style is entertaining and is filled with interesting anecdotes which lend emphasis and clarity to the exposition. It is recommended for patient reading.

R.W.B.

WORK AND THE HEART. Transactions of the First Wisconsin Conference on Work and the Heart. Edited by Francis F. Rosenbaum, M.D., Associate Clinical Professor of Medicine, Marquette University School of Medicine, and Elston L. Belknap, M.D., Professor and Director, Department of Occupational and Environmental Medicine, Marquette University School of Medicine. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 1959. Price, $12.00.

Edited by Francis Rosenbaum and Elston Belknap and based on the proceedings of Wisconsin Conference on the Heart at Marquette University, this book deals with the effects of work and stress on cardiac function.

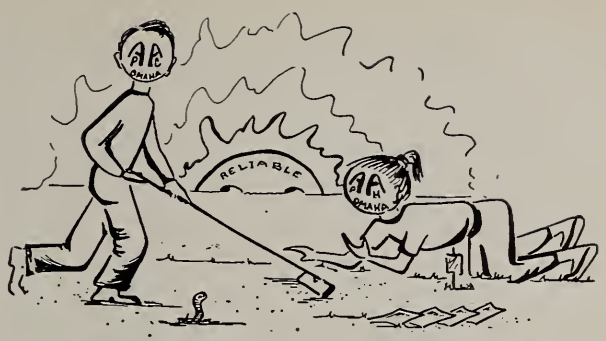
It is divided into five main sections from basic physiology to clinical physiology, pathology, work classification, and workmen's compensation, corresponding to the main panels of the conference. All aspects of the subject from that of basic scientific problems to broad social application are covered. Each panel moderator prepared a final summary of the unlimited discussion and formal presentation of his panel. These summaries and the manuscripts of the prepared papers at the panel meetings make up this large book of over five hundred pages.

Tests for cardiac function in the older group and those for functional evaluation in the afflicted are analyzed in detail. Results of work classification units and aspects of workmen's compensation and medico-legal problems are discussed. Areas of ignorance as well as information are identified in this field.

R.W.B.

CHRONIC ILLNESS IN A RURAL AREA. Chronic Illness in the United States. Volume III. The Hunterdon Study. Reported by Ray E. Trussell, M.D., M.P.H., and Jack Elinson, Ph.D., both of the School of Public Health and Administrative Medicine, Columbia University. Published for The Commonwealth Fund. Cambridge, Massachusetts: Harvard University Press, 1959. Price, $7.50.

This is the third of a series on chronic illness and it is written by Public Health Specialists at Columbia University. It deals with a survey of prevalence of chronic illness in a rural community, specifically Hunterdon County, New Jer-



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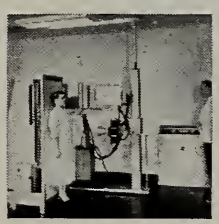

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sey. Disease problems and care needs are studied by the Hunterdon Medical Center, a local unit dedicated to the improvement of rural health. The work is sponsored by the Commonwealth Fund of Massachusetts.

This completes a series of four reports on chronic illness in the United States, sponsored by the Commission on chronic illness.

This report points up a startling lack of medical care, both in quantity and quality in the area studied, particularly in chronic disabling diseases sampled. The primary faults were failure to diagnose the disease and incorrect diagnosis when a diagnosis was made at all. Reason for not seeking care included unavailability, financial inability, and the patient's belief that care might interfere with his usual activity.

Details of screening and evaluation procedures are given as well as interview methods.

The book opens with a discussion of Highlights of the Survey for those who are not able to go through the large mass of detail on its conduction.

It is of general interest to public health people, sociologists, and politicians, primarily. It offers an insight into the opinion of high minded public health people regarding the standards of care in a rural community with existing medical facilities in one of our eastern States and indicates existing social trends in medicine. The book is worthwhile reading for enlightenment, if for nothing else.

R.W.B.

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THE COVER

For this Aging number, Artist Dirk Gringhuis combines the Chinese symbol for "Longevity" with appropriate copy for an effective cover, stressing "Aging . . . with zest, skill, experience, enthusiasm."

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Chairman
R. A. Jaarsma, M.D. ..... Flint
Secretary

Occupational Medicine
William Jend, Jr., M.D. ..... Detroit
Chairman
John H. Ganschow, M.D. ..... Detroit
Secretary

Ophthalmology and Otolaryngology
John E. Magielski, M.D. ..... Ann Arbor
Chairman (Oto.)
Paul L. Cusick, M.D. ..... Detroit
Co-Chairman (Ophth.)
Vital E. Cortopassi, M.D. ..... Saginaw
Secretary (Oto.)
Paul Van Portfliet, M.D. ..... Grand Rapids
Secretary (Ophth.)

Pediatrics
H. T. Knobloch, M.D. ..... Bay City
Chairman
John L. Doyle, M.D. ..... Grand Rapids
Secretary

Public Health and Preventive Medicine
L. V. Burkett, M.D. ..... Flint
Chairman
Vlado A. Getting, M.D. ..... Ann Arbor
Secretary

Radiology, Pathology, Anesthesiology
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Chairman (Anesthesiology)
James G. Wolter, M.D. ..... Detroit
Vice Chairman (Pathology)
E. P. Griffin, M.D. ..... Flint
Secretary (Radiology)

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Robert E. L. Berry, M.D. ..... Ann Arbor
Chairman
Donald N. Sweeny, Jr., M.D. ..... Detroit
Secretary

Urology
William Bromme, M.D. ..... Detroit
Chairman
Harry E. Lichtwardt, M.D. ..... Birmingham
Secretary

DELEGATES TO A. M. A.

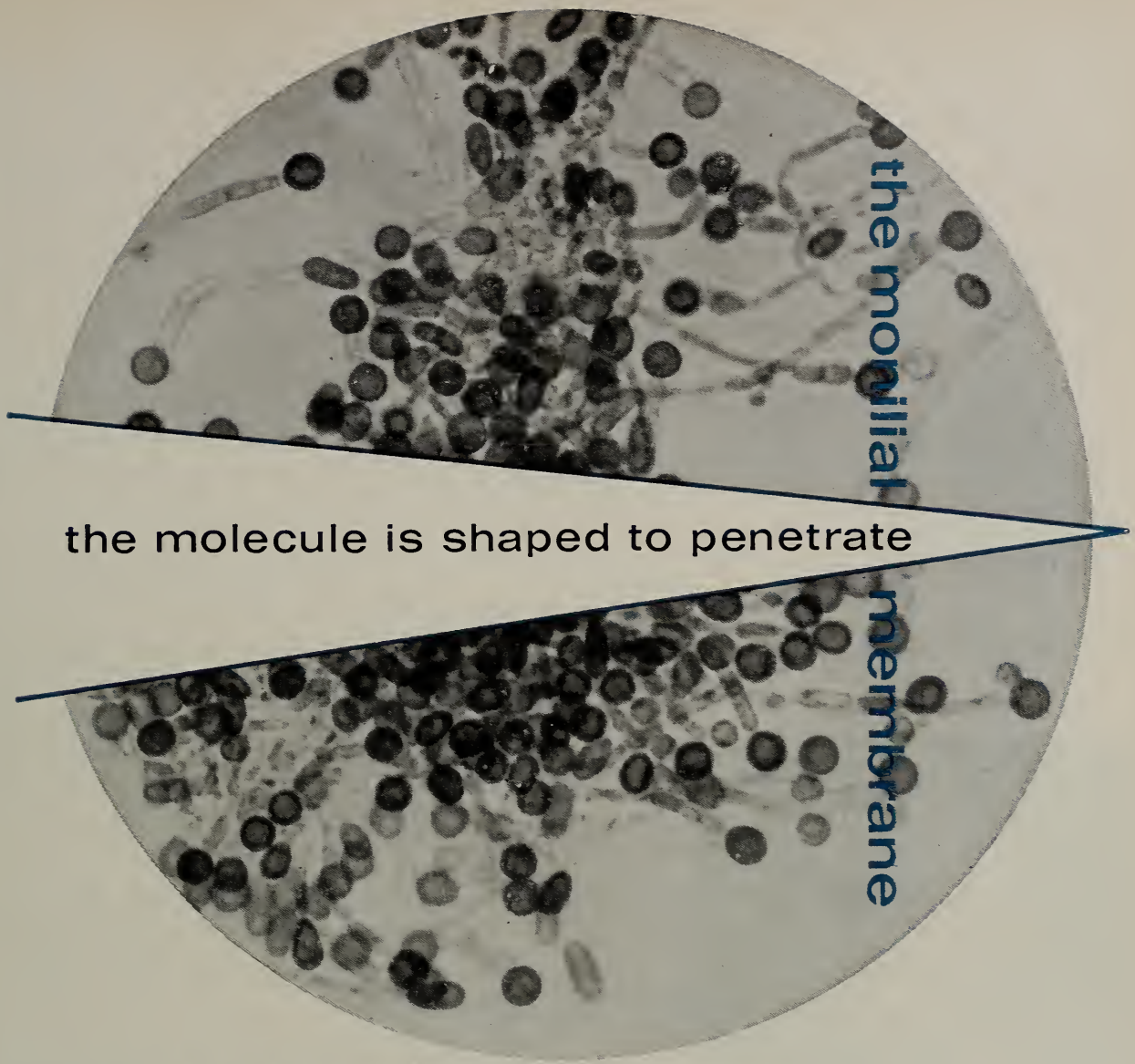
Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Creek	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

*To fill unexpired term of R. W. Shook, M.D., deceased.



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*Lapan, B.: Am. J. Obst. & Gynec. **78**:1320, 1959.

Ortho

President's Page

"ALAS BABYLON" IN YOUR COMMUNITY

Milton A. Darling

President
Michigan State Medical Society

Playhouse 90 presented a stirring production in early April illustrating the horrors of atomic warfare, adopted from the new book, "Alas Babylon." The intensely interesting facet of the TV show was the impact of such nuclear battle on individuals in the community after the bombs had been dropped.

The preservation of health and life in event of atomic attack was stressed at the national defense meeting held March 30 in Battle Creek, with the MSMS National Defense Committee as one of the sponsors.

The Conference stressed that no new organization in civil defense, especially in its medical and health phases, is planned. Instead, the speakers urged that the medical profession and health organizations should plan, within their own frameworks, to train people to cope with the new problems caused by a nuclear attack upon the United States. The treatment of radiation and of mass casualties are but two examples of new training requirements. The medical profession must determine what new techniques are necessary so that the nation's physicians, hospitals, and medical care organizations can meet the challenge of this age of great peril.

More organization at the local level was urged since in a nuclear emergency it may be necessary to survive many weeks without outside aid. This was the main theme of "Alas Babylon."

Our message, too, is a plea for more organization at the local level.

Every component society is urged to appoint an active civil defense committee which may contact the MSMS National Defense Committee for direction. Thus all local units will become an integral part of the over-all plan for protection of Michigan's citizens.

More appropriate today than ever before is the motto "BE PREPARED."

MSMS Workshop Proposes Ways To Solve Problems of The Aging

Ten possible solutions to challenges of the aging were proposed at a Michigan State Medical Society workshop April 3. Prominent leaders in medicine, health, education, government and civic service participated in the "MSMS Workshop on Services to the Aging."

"The positive workable ideas suggested at this workshop will be weighed carefully by the MSMS Council and by the MSMS Geriatrics Committee," assured H. J. Meier, M.D., chairman of The Council, in his workshop summary. "Many of the proposals today may well serve as blueprints for future MSMS actions," he observed.

The workshop program had two objectives; (1) to share new information and experience in the area of aging, and (2) to explore ways in which the medical profession can participate more actively in the Regional and Michigan Conferences on Aging.

"We must preserve the integrity and independence of every living person," he said. "The three basic health needs of all the people are medical/hospital care, facilities for convalescent care, and trained health personnel properly organized and motivated."

Lauds Senator Greene

Doctor Meier stated that much more information was needed about the aged and lauded Senator Perry Greene (R-Grand Rapids), who participated in the workshop, for his leadership in bringing about the newly created Michigan Commission on Aging.

In reference to the conference on health problems being held by Governor Williams to build a liberal program for the Democratic Party to follow nationally, Doctor Meier said, "I am sure that group will make a liberal contribution to the field, speaking in the vernacular of politics. I am equally sure that this Michigan State Medical Society Workshop will make a liberal contribution, of course, speaking in the vernacular of service."

Fredrick C. Swartz, M.D., Lansing, chairman of the American Medical Association Committee on Aging, presented the keynote address, "What Are the Facts About the Aging?" He told the group that doctors of medicine must participate in community and civic affairs.

Wants Facts Corrected

"Proponents of Forand-type legislation have distorted the facts and would have us believe that most of the aged are sick and infirm, and that their financial picture is drastically different from the rest of the population."

Dr. Swartz continued: "Regarding the incidence of illness, a recent survey shows that one in ten between the ages of sixty-five and seventy-four have some illness and one in five over seventy-five years of age have illness, which leaves 13 million oldsters in pretty good health. While this situation may not be ideal, it certainly is not the hopeless, gloomy picture presented by some.

"It has also been said that nearly two-thirds of the over-sixty-five have annual incomes of less than $1,000. If we accept this, it can similarly be shown that 60 million persons between the ages of fourteen and sixty-four have annual incomes of less than $1,000.

"From the standpoint of health and finances, the over-sixty-five have no difficulty or problem that is not shared by the under-sixty-five except forced retirement," he concluded.

Panel Studies 'Real' Health Needs

The "real" health needs of the aging were studied by four panelists at the workshop.

A. H. Hirschfeld, M.D., Detroit, a member of the MSMS Geriatrics Committee, said oldsters are being isolated and this creates a psychosis.

"Isolation and uselessness of the aged are the basic problems of the aged. The solution of other problems should be secondary.

"The gift of material substance is not a satisfying thing and it is certain that money itself will not make oldsters happy.

"The human requirements for happiness are satisfaction in a job well done and to love and be loved by those close to us," Doctor Hirschfeld explained.

Urges Scientific Study

Doctor Hirschfeld emphasized that scientific methods must be used to develop solutions to the total needs of the aged. This could best be done, he said, in cooperation with a medical school. Specifically, he suggested that model housing units for the aged be constructed close to a medical school so that faculty could study and evaluate the various ramifications of living past the age of sixty-five. Present liberalized mortgage laws would permit this construction using private capital.

"Such an experimental research plan for observation and experimentation could produce dramatic results," Doctor Hirschfeld concluded.

Daryl V. Minnis, East Lansing, Director, Ingham County Board of Social Welfare, as a member of the panel, discussed needs of the aged based upon the experience of the county social welfare agency. Mr. Minnis said there was a close tie between finances and health. Present Old Age Assistance cash benefits to needy over-sixty-five required supplementation by local county agencies. Not all counties in Michigan, he reported, supplemented the OAA $80 maximum monthly payments.

V. K. Volk, M.D., Saginaw, another member of the panel and Chairman of the Saginaw Regional Conference on Aging, reported that the size of the problem must be ascertained and that local needs must be identified. He suggested that research on aging needs should be a community project with county and state medical societies participating and providing leadership.

Pays Tribute to Council

Doctor Volk commended the MSMS Council for recommending in January that compulsory retirement be abolished, that work opportunities for the aged be provided, and that state and local governments be encouraged to share the purchase cost of voluntary health insurance for those over-sixty-five who need financial assistance.

J. K. Altland, M.D., Lansing, Michigan Department of Health, next on the panel, discussed how health departments could contribute to a team solution of the needs of the aged. He outlined the following activities as specific examples of aid: accumulation of health data; control of communicable disease; improvement of patient care in nursing homes through licensure; encouragement of rehabilitation procedures in nursing and convalescent homes; assistance in the development of chronic disease hospital units; further development of proprietary nursing homes; and extension of bedside nursing and visiting nurse programs.

Explains Aging Conferences

James E. Brophy, Detroit, Chairman of the Michigan Commission on Aging, spoke to the workshop about the forthcoming regional and state Conference on Aging which will make recommendation to the White House Conference on the Aging in January, 1961. He said seventy-two Michigan delegates will attend the White House meeting which will consider not only immediate problems of the aging but also means of preparing for retirement. This preparation should begin at age forty-five, he said.

It was inspiring to see the number of M.D.'s active in the field of aging, Mr. Brophy said, as he congratulated the MSMS for its activities.

Following the formal presentations, the Workshop participants formed discussion groups in order to explore every avenue of solution.

A. Hazen Price, M.D., Detroit, chairman of the MSMS Geriatrics Committee, told the workshop that most older persons are still useful citizens who want to maintain their independence and contribute to the community in which they live. Most are reasonably well, live in acceptable homes, and are capable of taking care of themselves.

"It is our feeling," he continued, "that the dignity of the individual must be maintained at all costs and every opportunity provided for him to pay for his needs and not be dependent upon state or federal aid except in cases of serious illness."

Asks Work for Aged

Speaking at the dinner which concluded the Workshop, Daniel Kruger, Professor of Economics, Michigan State University, said that local community action is the only way to solve the pressing unemployment problems facing those over-sixty-five.

Progress must be made with management and labor to correct both real and imaginary employment roadblocks, he warned. Professor Kruger pointed out that the two real roadblocks are the arbitrary retirement age of sixty-five and the changing nature of jobs.

In summarizing the Workshop, Doctor Meier said that the ideas formulated should be taken to the Regional Conferences on Aging by the workshop participants.

List Ten Proposals

He reviewed the programs receiving favorable comment at the workshop as follows:

1. Removal of compulsory retirement by industry and labor through voluntary and legislative action.
2. A program to provide work opportunities for the aged.
3. Encouragement of state and community governments to share the purchase cost of voluntary health insurance for those over-sixty-five who need financial assistance.
4. Participation by the medical profession in the preliminary meetings on local and state level prior to the 1961 White House Conference on Aging.
5. Increasing cash benefits to those receiving Old Age Assistance.
6. Exploring the possibility of including under OAA the "marginally indigent" person who is independent except for unusual trouble; and considering OAA as a possible mechanism for sharing of the premium cost of voluntary health insurance.
7. Possible establishment of a privately financed plan comparable to the Federal Deposit Insurance Corporation (which guarantees bank depositors against loss) which would guarantee health insurance premium payments, in whole or in part as need dictates, for those over-sixty-five who are unable to keep up such payments.
8. A pilot program for the construction of model housing units for the aged near a medical school so that scientific study could be given to the needs of the aged by faculty members. This could be done by private enterprise under present liberalized mortgage laws for this type of construction.
9. Educational program calling for pre-retirement planning beginning at age forty-five.
10. Emphasis on a preventive medicine program to include periodic health appraisals; gathering of health data, control of communicable disease, improving patient care and rehabilitation in nursing homes through licensure, and the developing of chronic disease hospital units.

Doctor Meier reported that the participants at this MSMS workshop were selected from leaders in the following organizations: Michigan Department of Health, Michigan Commission on Aging, Michigan Health Council, Michigan Gerontology Society, Michigan Joint Council to Improve the Health Care of the Aged, Michigan Society of Neurology and Psychiatry, Michigan Senate, Michigan State University, American Medical Association, and Michigan State Medical Society.

Cornell Asks MSMS Aid Again

The Cornell university automotive crash injury research program, which started in Michigan in 1957 and ran for two years, will resume for another two years.

The same organizations which participated in the original study, the Michigan state police, the state department of health and physicians with the endorsement and cooperation of the Michigan State Medical Society and Michigan Hospital Association, will continue to cooperate.

Eighteen other states also are taking part in the study.

The new program in Michigan, which will extend from May 1, 1960 to April 30, 1962, will be similar to the previous one except that the volume of reports will be considerably less, with reports being required only on passenger cars involved in accidents which result in death or injury to an occupant.

Purpose of the studies is to determine causes for death and injury in accidents with an end toward finding means of building greater safety features in motor vehicles.

MICHIGAN MEDICAL MEETINGS AND CLINIC DAYS

June 17-18	Upper Peninsula Medical Society	Escanaba
July 28-29	Coller-Penberthy Clinic	Traverse City
September 25-30	Michigan State Medical Society Annual Session	Grand Rapids

HIGHLIGHTS of MSMS Council Meeting

Meeting of March 7, 1960

Twenty-one members of The Council were present at this seven-hour meeting at which 83 items were considered. Chief in importance were:

- Forand-type legislation was thoroughly discussed; a report on MSMS activities in this field was presented to and received by The Council. A talk was recently prepared by MSMS and delivered to date before 9 county medical societies, mainly by the Councilor of the District.
- Correspondence from the two medical school deans in Michigan recommending that the MSMS Liaison Committee meet with the administration of both schools to consider matters of mutual interest was referred to the Chairman of the Committee, B. M. Harris, M.D., Ypsilanti.
- Meeting with Michigan State University re proposed third medical school: Secretary Wiley reported on this meeting to which MSMS sent an observer. MSMS is interested in further exploration concerning the possibility of a third medical school in Michigan.
- Speaker J. J. Lightbody, M.D., Detroit, reported that all eight committees of the House of Delegates were appointed and most have held one or more meetings.
- Legal Counsel Lester P. Dodd presented opinion re patient refusing psychiatric treatment: a physician cannot bring in a consulting physician or refer a patient for psychiatric treatment without the consent of the patient. Mr. Dodd also reported on the February 3 meeting with the Genesee County Medical Society Board of Directors to discuss a Flint hospital problem. He also reported preliminarily on Internal Revenue Service action re Kintner-type associations —Internal Revenue Service plans to hold hearings on its proposed rules before they are made final.
- Public Relations Counsel H. W. Brenneman reported on legislation, both national and state; progress on the new MSMS publication "Medical Economic Currents"; disposition of 1957 opinion survey questionnaires; progress report on Michigan Health Council and Michigan Association of the Professions.
- Committee reports considered were:
  1. Mental Health Committee, January 25.
  2. Residents-Interns-Senior Medical Students Conference, Program Committee, January 27.
  3. Public Relations Committee, January 21.
  4. Committee on Rural Medical Service, February 3.
  5. Advisory Committee to MSMAS, February 7.
  6. Wayne County Councilor District Medical Care Insurance Committee, February 11.
  7. Venereal Disease Control Committee, February 18.
  8. Big Look Committee, March 7.
- Progress report on Michigan Medical Service. President G. Thomas McKean, M.D., Detroit, reported on the present financial condition of MMS, and that MMS was sending out its Annual Report to all Michigan doctors of medicine.
- Michigan Cancer Coordinating Committee. The question whether the Michigan Cancer Foundation should be approved as a member-organization of MCCC gained the affirmative vote of The Council. The Council recommended to the 1960 MSMS House of Delegates that the MSMS Cancer Control Committee be reconstituted as it is an advisory committee whose guidance is necessary.
- Appointments. 1. Representatives to Upper Peninsula Medical Society annual meeting, Escanaba, June 17-18: K. H. Johnson, M.D., Lansing, H. J. Meier, M.D., Coldwater, T. P. Wickliffe, M.D., Calumet, H. F. Falls, M.D., Ann Arbor, and Warren F. Tryloff, Lansing.

  2. To AMA meeting, June 13-14: Milton A. Darling, M.D., Detroit, J. J. Lightbody, M.D., Detroit, D. Bruce Wiley, M.D., Utica, Wm. J. Burns, and H. W. Brenneman, of Lansing.

  3. MSMS representatives to Michigan Cancer Coordinating Committee: E. I. Carr, M.D., Lansing, Wm. A. Hyland, M.D., Grand Rapids, J. W. Hubly, M.D., Battle Creek, H. M. Pollard, M.D., Ann Arbor, and Alternate H. J. Vandenberg, Jr., M.D., Detroit.

  4. MSMS representatives to annual Michigan Day; Washington, D. C., May 2-3: Milton A. Darling, M.D., K. H. Johnson, M.D., D. Bruce Wiley, M.D., H. J. Meier, M.D., and H. W. Brenneman.

  5. New Ad Hoc Committee Concerning Practice of Chiropody: L. A. Drolett, M.D., Lansing, Chairman; Wm. H. Blodgett, M.D., Detroit; B. M. Harris, M.D., Ypsilanti; R. J. Mason, M.D., Birmingham; and G. Thomas McKean, M.D., Detroit.

  6. Chairman of Eighth Councilor District MCIC: C. W. Cory, M.D., Saginaw.

  7. Representatives to AMA National Congress on Prepaid Health Insurance, Chicago, May 13-14: A. Jackson Day, M.D., Detroit, J. W. Rice, M.D., Jackson, D. N. Sweeny, Jr., M.D., Detroit.

  8. MSMS Representative to Regional Meeting on Veterans' Affairs, Indianapolis, in September: Wm. Bromme, M.D., Detroit.

(Continued on Page 720)

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1. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:380, July, 1959. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:384, July, 1959.

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MSMS Council Meeting

(Continued from Page 718)

9. MSMS representative at U-M Doctors' Day, Ann Arbor, May 14: President Milton A. Darling, M.D.

10. MSMS representative to White House Conference on Children and Youth, Washington, D. C., March 28: R. M. Heavenrich, M.D., Saginaw.

11. Nominees to Board of Trustees of Michigan Hospital Service: W. W. Babcock, M.D., Detroit; Wm. M. LeFevre, M.D., Muskegon; and D. R. Smith, M.D., Iron Mountain.

12. MSMS Representatives to AMA preliminary program on 1961 White House Conference on Aging: A. Hazen Price, M.D., Detroit, A. E. Heustis, M.D., Lansing, and Executive Director Wm. J. Burns.

- Financial report and bills payable were presented, given study, and approved by The Council.

Interim Report of House of Delegates Committee to Study MSMS Publications

The Committee met in Detroit on January 28, 1960, and in accordance with the House of Delegates action reviewed and made recommendation on the following matters:

1. *Editorial Policy of* THE JOURNAL *of MSMS.* The role of the Publication Committee of The Council was reported and Editor Haughey's present policy of distributing advance copies of his editorials to MSMS officers and members of the Publication Committee for approval or correction prior to publication was reviewed. Following full discussion, the Committee voiced its approval and recommended continuation of the editorial procedure to date of Editor Haughey, particularly his system of sending out editorials in advance for recommendations.

2. *Election of the Editor.* The present procedure whereby the Editor is elected annually by the MSMS Council was reviewed and pointed out as an example of government by representation. The Committee members felt that the Editor should not be at variance with the current administration and therefore respectfully recommended that The Council only nominate one or more persons to serve as Editor for a one-year term and that these nominations be submitted to the House of Delegates for election at its Annual Session.

3. *New Format and Changes in* THE JOURNAL. The Committee reviewed the many recent changes made to improve readability and noted that JMSMS had been rated highly at the recent Conference of State Medical Society Journal Editors. The Committee noted with approbation the high quality of THE JOURNAL under the direction of Editor Haughey.

4. *Advertising Policies and Publication Problems.* The Committee recommended that all scientific articles be printed on consecutive pages so as to improve readership, instead of continuing lengthy articles as is now done. It also suggested that "Letters to the Editor" be encouraged.

5. *Review of Secretary's Letter and Legislative Report.* Following review, the Committee approved of these news publications and recommended their continuation.

H. F. FALLS, M.D.
E. E. MARTMER, M.D.
C. ALLEN PAYNE, M.D.
D. I. SUGAR, M.D.
F. L. TROOST, M.D.
O. J. JOHNSON, M.D., *Chairman*

NOTE: The Council, at its January 30 Annual Meeting, adopted the following: "That the Publication Committee of The Council assume responsibility as the Editorial Board for THE JOURNAL; that all editorials shall be submitted to the members of that Committee; that it is the intent of this action that the Publication Committee acting as the Editorial Board assume, with the Editor, the responsibility for all editorials printed in THE JOURNAL and shall act in a consultative capacity for other items in THE JOURNAL."

MSMS Sponsors Workshop On Disaster Medical Care

More than 150 physicians, key medical and hospital personnel from Michigan attended a Disaster Medical Care workshop presented in Battle Creek on March 30 by the Michigan State Medical Society.

Frank O. Starr, Director, Region 4, Office of Civil and Defense Mobilization, told the group they must utilize their present medical organizations to plan the action that would be necessary to meet major disasters.

Others on the program were William Powell, Deputy Director of the Michigan State Office of Civil Defense; Douglas H. Fryer, M.D., Director, Local Health Administration, Michigan Department of Health; C. P. Anderson, M.D., G. L. Otis, M.D., Merle E. Wehner, M.D., and Ronald Yaw, members of the Committee on National Defense of the Michigan State Medical Society, and Paul Lindquist, M.D., Deputy for Operations, Health Services, OCDM.

The afternoon sessions were devoted to workshops concerned with how doctors and hospitals can meet the needs of disaster medical care. David Walchembach, Chairman, Disaster Planning Committee of the Michigan Hospital Association presided over the meeting.

The conference was greeted by Milton A. Darling, M.D., President, Michigan State Medical Society and A. Kent Schafer, President Michigan Hospital Association.

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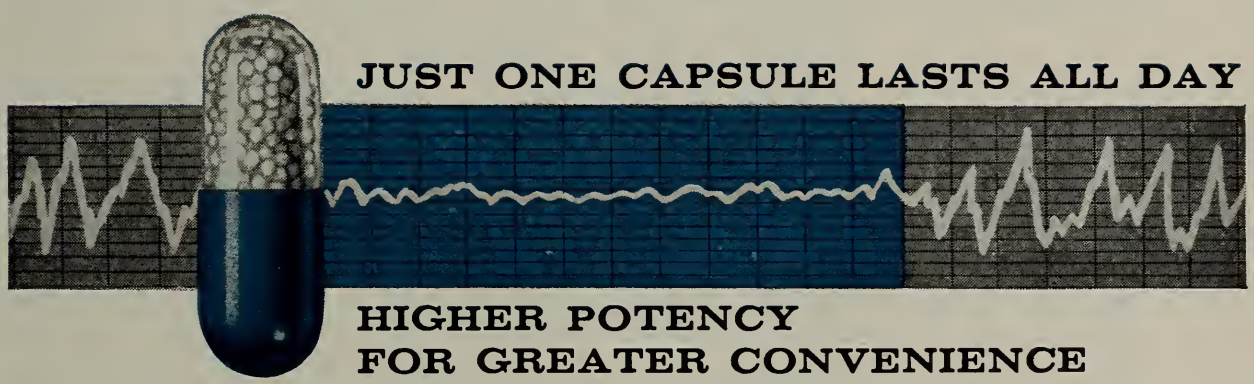

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Below — The final MCI closed-circuit colored telecast considered "Clinical Aspects of Aging." Shown on camera are Fredrick C. Swartz, M.D., left, Lansing, and James E. Birren, Ph.D., Bethesda, Md.

Above—One of the many clinical movies shown at each MCI by the American Cyanamid Company is checked by O. M. Chickering, Detroit, regional manager.

Photos Help to Tell MCI Story

A familiar scene at the annual MCI is the speaker's platform, where C. S. Stevenson, M.D., Detroit, introduces Eugene N. Beesley, seated, president of Eli Lilly and Company, Indianapolis.

MSMS President and Mrs. Milton A. Darling, at right, are introduced by William Bromme, M.D., second from left, Detroit, to R. F. Goodspeed, at left, Wayne State University senior medical student, during the annual Conference for Residents, Interns and Senior Medical Students.

MSMS President-Elect and Mrs. Kenneth H. Johnson, at right, meet Robert Fisher, at left, University of Michigan senior medical student, during the Conference for Residents, Interns and Senior Medical Students. Making the introduction are Dr. and Mrs. Archie A. Claytor, of Saginaw. Doctor Claytor is Michigan's Foremost Family Physician.

Cancer Quackery folders catch the interest of the Cancer Control panel—left to right, S. M. Sessoms, M.D., Bethesda, Md., M. J. Brennan, M.D., Detroit, R. W. Talley, M.D., Detroit, E. P. Vollmer, Ph.D., Bethesda, Md., and Harry M. Nelson, M.D., Detroit, who introduced the panel.

1960 MCI Shares "Tomorrow's" Knowledge Today

The participants at the 1960 Michigan Clinical Institute at Detroit benefited with "Tomorrow's Medicine Today" as the theme promised.

There were new methods of treatment demonstrated, new fields of research explained, new areas of treatment discussed.

There were new technical exhibits, new products, new displays.

And there was a new enthusiasm at the 1960 MCI, the fourteenth annual refresher course.

Total registrations reached 2,671. This included 1,260 doctors of medicine, 157 medical assistants and 272 students. And there also were 325 operating room nurses and 33 other nurses. The total attendance also included 208 other guests including wives, and 416 exhibitors.

* * *

THE GENERAL CHAIRMAN was R. J. Hubbell, M.D., MSMS Past President, of Suttons Bay.

The official program started Tuesday afternoon, March 8, with a simultaneous opening of the exhibits. Addresses of welcome were given by Milton A. Darling, M.D., President of the Michigan State Medical Society and Milton R. Weed, M.D., President of the Wayne County Medical Society. The Michigan Chapter of the American Academy of Pediatrics had met that morning at the Children's Hospital auditorium with a full session.

THE FIRST SESSION of the Michigan Clinical Institute was devoted to Cancer Control with a panel sponsored by the Michigan Cancer Coordinating Committee on "Chemotherapy of Cancer." This was a most inspiring discussion outlining advances made in many lines of research in attempting to control cancer. In the late afternoon there was another symposium on "Steroids."

On the second day—"General Practice Day—Surgery"—there were two interesting papers presented. The color television program as in the past several years was a closed circuit devoted to "Surgery of the Skin and Subcutaneous Tissues," a panel on "Varicose Ulcers," and a panel on "Hospital Care of a Surgical Wound." These TV shows were remarkably well attended, the Grand Ballroom being essentially full much of the time.

* * *

THE SECOND DAY WAS devoted to Trauma. The papers covered "Treatment of Traumatic Shock," "Fractures In Children," "The Hazards of Iatrogenic Pneumothorax in Certain Diagnostic and Therapeutic Procedures," "The Challenge of Facial Lacerations," "Trauma and Whole Body Irradiation." The evening of the second day was devoted to "Problems of Juvenile Delinquency." The chairman was John M. Dorsey, M.D., of Detroit, with six participants. This was opened to the ladies.

THE THIRD DAY devoted to Heart and Rheumatic Fever had a panel on "Hypertension." Then followed a closed channel television program again from Harper Hospital, produced by the kindness of Smith, Kline and French Laboratories of Philadelphia. There was a demonstration and discussion of "The Physical Signs of Congestive Heart Failure," followed by "The Diagnosis of Carotid Arterial Occlusion" and "Cardiac Arrest in the Operating Room" with instructions and demonstrations on opening the chest wall and massaging the heart back into action. The demonstrator had saved many patients by this procedure. He said, don't wait, whatever doctor is present when heart failure happens—get into the chest with two long incisions at the rib margin and immediately put the hand in and start massaging, then have somebody else start oxygen, fresh blood to be pumped farther into the system and keep compressing the heart until you have about 80 units blood pressure. By that time relief should be around and take turns. Sometimes this service has to be continued for two or three hours. This was a most useful and encouraging demonstration and was of particular interest to the Battle Creek visitors because the President of the Calhoun County Medical Society had himself just gone through that process—heart failure from a coronary—chest opened —heart massaged—and general care. The next TV program was "Glaucoma with Instruction in Tonometry," "Common Ocular Fundus Findings" and "Common External Eye Diseases."

In the afternoon—Internal Medicine, "A New Look At Food Poisoning," "Evaluation of Drugs," "Blood Component Therapy," "Aerospace Medicine." The last item that day, sponsored by the Michigan Foundation for Medical and Health Education was a clinical movie of "Patient With Multiple Personality" by Corbett H. Thigpen, M.D., of Augusta, Georgia, from the Department of Psychiatry of the Medical College of Georgia.

THE LAST DAY was devoted to Obstetrics and Gynecology on "Today's Challenges for the Health Team" and "Prolonged Labor." A closed television was devoted to "Early Detection of Cervical Carcinoma: Cytologic Techniques"; a panel on "Prolapse Uteri" and a panel on "Clinical Aspects of Aging."

OCCURRING AT THE SAME TIME as this Clinical Conference was a Conference for Residents, Interns and Senior Medical Students of Michigan, and ending with a reception honoring President and Mrs. Milton A. Darling of Detroit.

Also on Wednesday at the Fort Shelby Hotel there was a meeting of the Michigan State Medical Assistants Society.

On March 10 and 11 the Operating Room Nurses Institute met.

There was a complete program during the whole period of color motion pictures presented by the American Cyanamid Company. Technical exhibits were up to standards set many years ago with some new additions, new methods of display and new enthusiasm.

MD's Address Clubs During Clinical Institute

Detroit area service clubs again hosted physician-speakers for their luncheon meetings during the Michigan Clinical Institute. Business and professional people and civic leaders have demonstrated their appreciation for these M.D.-speaker-programs by inviting them back each year, and by their complimentary letters following the talks.

The MCI Service Club Speakers for 1960 were:

Warrendale Kiwanis Club, Charles W. Sellers, M.D., Detroit.

Exchange Club of Detroit, Ira M. Altshuler, M.D., Detroit.

Kiwanis Club of Grosse Pointe, Chauncey J. Hipps, M.D., Detroit.

Art Center Kiwanis, Glenn E. Millard, M.D., Detroit.

Mt. Clemens Kiwanis, Kathryn McMorrow, M.D., East Detroit.

Kiwanis Club of Central Detroit, Douglas A. Sargent, M.D., Detroit.

Kiwanis No. 1, Alexander H. Hirschfeld, M.D., Detroit.

Detroit Denby Kiwanis, Sidney E. Chapin, M.D., Dearborn.

Civitan Club, Chauncey J. Hipps, M.D., Detroit.

Louis Stone Chapter, B'nai B'rith, Ira M. Altshuler, M.D., Detroit.

Royal Oak Exchange Club, Neal Brady, M.D., Royal Oak.

West Pontiac Kiwanis, Robert Pool, Jr., M.D., Pontiac.

Excalibur Club, C. Howard Ross, M. D., Ann Arbor.

U & I Club, Jack Rom, M.D., Detroit.

Jackson School PTA in Livonia, Harvey Stein, M.D., Livonia.

Downriver Branch of Auxiliary to WCMS, Richard Philleo, MSMS, Lansing.

University of Detroit, P.R. Class, H. W. Brenneman, MSMS, Lansing.

The MSMS Public Relations Committee is indebted to the physicians taking time from their busy practices to talk with these service club groups.

What They Said About MCI

After every Michigan Clinical Institute, the State Society receives many letters from guest essayists, special guests, exhibitors and others voicing their comments. The following are samples from some letters:

"I would like for you to know what a wonderful time I had in Detroit and how cordially I felt that I was received. I really had no conception of the honor that you were offering me when you asked me to be Foundation Lecturer for the Michigan Clinical Institute. You mentioned that there would be a certificate but I didn't dream that it was such a signal honor. I really feel quite humbled by the scroll."—*Corbett H. Thigpen, M.D.*, Augusta, Ga., Guest Essayist.

* * *

"Back in Chicago after a very pleasant visit to Detroit and participation in the Michigan Clinical Institute.

"In spite of the early hour of 9:00 this morning, your group had a very gratifying turnout. It is a tremendous job which you fellows do in arranging programs for this annual affair."—*Walter G. Maddock, M.D.*, Chicago, Guest Essayist.

* * *

"Participating in the program of the Michigan Clinical Institute on March 8 was both an honor and a pleasure. I hope the material presented and the topics covered met the needs of the program."—*Stuart M. Sessoms, M.D.*, Bethesda, Md., Guest Essayist.

* * *

"I enjoyed my trip to Detroit very much and only hope that my presentation to your group was the type of presentation that they wished to hear. I heard some comments in the audience that they were glad that I had stressed the things that I had in fractures in children, so perhaps it was interesting to at least some of them."—*Claude N. Lambert, M.D.*, Chicago, Guest Essayist.

* * *

"Thank you for the opportunity of meeting with the members of your Society in Detroit."—*Merle M. Musselman, M.D.*, Omaha, Guest Essayist.

* * *

"I want to tell you how much I enjoyed participating in the Fourteenth Annual Michigan Clinical Institute and hope that our discussions on aging were of some value."—*N. W. Shock, M.D.*, Bethesda, Md., Guest Essayist.

* * *

"My heartiest congratulations go out to Doctor Hubbell for his excellent work as chairman of the Committee on Arrangements for the Michigan Clinical Institute. Every one of us physicians is grateful to Dr. Hubbell."—*John M. Dorsey, M. D.*, Detroit, Guest Essayist.

See Page 762 for late "State Society" news about the program for the Upper Peninsula Medical Society meeting, June 17-18.

County Society Officers

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WEXFORD-MISSAUKEE	G. P. Moore, M.D., Cadillac	T. H. Cardinal, M.D., 212 S. Simons, Cadillac

This Is the Year

Ever since August of 1957, when Congressman Aime Forand (D-Rd. Island) first proposed to add health benefits to the Social Security law, political seers have predicted that the 1960 presidential elections would make this year the make-it-or-break-it year for his Forand Bill. These prophesies have been borne out.

All of the presidential aspirants have indicated a keen desire to "do something for the elderly", and both political parties are busy drafting watered-down Forand Bills and alternative proposals in the hope of finding something they can sell to the American public . . . for votes.

Organized labor has broken all existing records of political pressure in its campaign for Congressional approval of the bill before adjournment this year.

Medicine's decision to withhold support from ANY legislative nostrum in the present absence of an accurate nationwide analysis of the true needs of all the elderly may seem overly cautious to its more spirited critics, but it is a decision borne of long experience in meeting the health needs of the public.

The medical profession and its many allies are determined that 1960 will be known as the year that America stopped the march of socialism (at least in health care) once and for all; and although victory is not predictable at this writing, Michigan's physicians have made notable contributions to the battle, some of which are listed below as an indication of their awareness to the gravity of the situation:

- Special delegations of MSMS were sent to two nationwide A.M.A. briefings on Medicine's 1960 campaign, one in St. Louis in October last year, and one in Chicago last January.
- The opening day's session (January 30) of the MSMS Annual County Secretaries-Public Relations Seminar, to which all county medical society officers, editors, and public relations committee chairmen were invited, was devoted exclusively to discussions by top experts on the problems of the aging and the Forand Bill.
- On April 3, in marked contrast to a political conclave sponsored by Michigan's G. Mennen Williams and devoted to developing a national Democratic platform on health matters, the Michigan State Medical Society hosted a special "Workshop on Services to the Aging," to which eight outstanding authorities on the problems of our senior citizens were invited to meet with twenty-seven key Michigan medical personnel.
- Some of the ten suggestions offered by the Workshop participants for improving the lot of the aging were: (1) cessation of compulsory retirement policies by industry and labor; (2) sharing by the state and community of the cost of voluntary health insurance for those persons in need of assistance; (3) increasing Old Age Assistance programs and providing special financial aid to the "marginally indigent"; (4) inaugura-

tion of pilot studies of new concepts in housing facilities for the aged; (5) encouragement of pre-retirement planning programs in industry; and (6) stimulation of greater interest in preventive medicine programs by the individual throughout his lifetime.

- Members of a specially organized speaker's bureau, county medical society officers, and MSMS Councilors presented talks on the Forand proposal to numerous medical, auxiliary, and lay audiences in every part of the state.
- Thousands of pieces of especially prepared literature, bulletins, pamphlets, and editorial reprints have been distributed to member physicians and the public.

The Keogh Bill

The year 1960 also may be signfiicant to self-employed persons in that the chance for passage by Congress of the so-called Keogh Bill appears the best ever. Variously known as the "Jenkins-Keogh", "Simpson-Keogh", and "Smathers-Keogh" Bills, HR 10 would grant tax equity to farmers, professional persons, and the other self-employed by permitting such taxpayers to deduct (for income tax purposes) contributions up to $2500 annually made to individual retirement programs, thus ending the present discrimination between employees who may join company pension plans and self-employed persons who may not.

The Treasury Department's past opposition to the bill has softened, and it is believed some compromise measure will emerge from this Session.

County Society News Round-Up

GENESEE—The second annual Conference on the Health of High School Athletes will be conducted by the Genesee County Medical Society May 25 at the Southwestern High School. The program will begin at 9 a.m., continue through the luncheon and adjourn in the mid-afternoon. The event is open to all coaches, trainers, administrators, physical educators and physicians.

JACKSON—The Jackson Citizen-Patriot, at the request of the *Jackson County Medical Society*, published a half-page chart on poison prevention. The article suggested that the chart be clipped and attached to the medicine cabinet door. The headline read, "Danger Lurks—Unless You Follow These Medical Society Poison Prevention Directions."

KALAMAZOO—The first joint meeting of the clergy and physicians was held at the regular March meeting of the *Kalamazoo County Academy of Medicine*. Guest speaker at the event sponsored by the Academy to promote greater understanding of the common role each group plays in working with the sick was Edgar Draper, M.D., of the University of Chicago.

WAYNE—Improved and enlarged emergency service sponsored by the *Wayne County Medical Society* was publicly announced by president M. R. Weed, M.D., and F. B. Levagood, M.D., chairman of the Medical Service Bureau Committee. Newspaper reports told how the Society had divided the city according to postal zones and calls are relayed to the nearest available physician on a rotation basis. The Bureau also makes referrals and answers calls for doctors whose phones are not manned.

GRATIOT-ISABELLA-CLARE—A panel of three doctors of medicine addressed the Mount Pleasant Rotary Club on the subjects of public health, glaucoma and coronary disease. Participants were E. J. Brenner, M.D., S. L. Chamichian, M.D., and John M. Wood, M.D.

HOUGHTON - BARAGA - KEWEENAW — The third Annual Copper Country Career Day for the ninth graders, was held April 23 in Hancock. Sponsors were the *Houghton-Baraga-Keweenaw County Medical Society*, Copper District Dental Society, and the Bar Association, assisted by the Woman's Auxiliaries. H. J. Winkler, M.D., is president of the Houghton-Baraga-Keweenaw County Medical Society.

Initiated as a service to the youth of the area high schools in 1958, Career Day has become a significant event on the school calendar. Supplementing existing guidance programs, Career Day offers ninth grade students the opportunity to explore possibilities in three career fields of their choice, through conferences with experienced consultants. Ninth graders were selected as a pilot group since they still have time to alter their courses to meet college requirements.

In Lansing

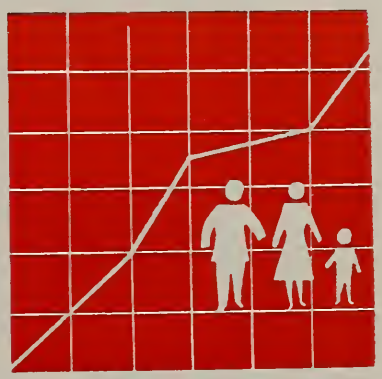
HOTEL OLDS

Fireproof

400 ROOMS

Instruments of Action

(Excerpts from the address given by Erwin D. Canham, President, Chamber of Commerce of the United States, at the organizational meeting of the new Michigan State Chamber of Commerce in Lansing.)



"You have brought into being a new voluntary organization of particular and specialized importance.

"Now that you have a State Chamber of Commerce, the business and professional men of Michigan—both urban and rural—can approach their statewide problems in a new way.

"You are now, for example, in an advantageous position to analyze statewide problems and to develop a sound program of research. Nothing could be more important. It is a question of concentrated fire—which is now possible—as compared to scattered fire.

* * *

"AND—IN ORGANIZING as you did—you emphasized the significance of the state as a political and economic unit.

"In recent years, we seem to have slipped away from the concept of the state's very special significance. We seem to have forgotten that the states are in fact the fathers of the national government. We have allowed the child to get somewhat out of hand.

"One hundred eighty years ago, the states gave the federal government a limited authority. It was a delegated authority. The federal government had no inherent powers.

"The state is still our most important single unit of government. All undelegated, undefined and unused powers reside in the states. Our counties, cities and school districts are all creations of the states. The state administers the great bulk of our civil and common laws. Indeed, approximately 90 per cent of legislation affecting our personal lives is state-administered.

"Michigan has an especially versatile economy.

"Within your boundaries is the automobile capital of the world. Your larger urban centers contain other manufacturing and processing industries—large and small—in great number. But Michigan also produces ore and timber. It is an important agricultural state—with a highly productive fruit belt. The recreation industry—the tourist business—is also important to your state's economy.

"You in Michigan have a very personal interest in a better national business climate.

* * *

"YOUR EIGHT MILLION citizens bear approximately 5 per cent of our national budget. In this last year alone, our national government is taking approximately three and eight-tenths billions of dollars out of Michigan. You are sending to Washington half again as much as the amount you spend to operate your own state government. (State general expenditures for 1958, $2.8 billion.)

"It is true, of course, that some of the money you send to Washington finds its way back to Michigan in the form of federal funds expended for some of your products in the interests of national

defense—and for services which are properly the function of the national government—such as navigation services—weather stations—and for interstate highways.

"But I am not thinking of federal expenditures for the responsibilities which have been logically assigned to the national government. I am thinking of so-called 'federal-aid'—which is a misnomer, although the phrase has entrenched itself in the American language, and I am afraid we are stuck with it.

"That figure of speech implies that a state or a community actually gets a handout from the federal treasury. The exact opposite is true—and certainly in the case of Michigan. In the case of Michigan, every dollar you receive in the form of a federal grant costs you about $1.44.

* * *

"THIS IS A MICHIGAN problem to some extent, but it is mostly a national problem. The pork barrel is too popular. The best way to resolve the problem—to cope with it—to confront it—is through voluntary action.

"Voluntary action is our nation's great tool in showing the rest of the world the way to solve problems without throwing ourselves slavishly into the arms of government.

"We all know that the future of this country is in the hands of educated—informed—men and women who are not indifferent—and who are willing to work for the general good.

"In the future of this country, nothing is more important than the state of mind of the American people. Upon that state of mind depends whether or not we shall carry out the principles so eloquently lived by the men who risked their lives, their fortunes and their sacred honors to bring about our independence.

* * *

"WE NEED TO RECAPTURE the zeal, dedication and practical exemplification which have been ours in our great historic moments.

"Whatever we do today, is of world wide significance. No one of us can afford the opium of inertia or self-indulgence. We live today in a new relationship with nature. The greatest fact of our century, surely is not atomic fission, nor great wars, nor power rivalries between two portentous systems, not even the awakenings of peoples. It is the growth of knowledge—the fantastic pyramiding of knowledge.

"But with our knowledge must come vision—insight—penetration—the still small voice of inspiration. Let us pray for wisdom."

Blue Shield Total Rises; 24 Per Cent of U. S. Covered

More than 44,700,000 persons were enrolled in the various Blue Shield Plans located in North America as of December 31, 1959, the National Association of Blue Shield Plans reported March 4, 1960 in Chicago.

Total membership reached 44,792,923, which represents an enrollment of 24 per cent of the total United States population and nearly 15 per cent of the total Canadian population.

"The net gain in membership for 1959 amounted to 2,217,667, which is significant improvement over the 1,096,203 gain for the year 1958," the national association also indicated in its year-end report.

Several Blue Shield Plans recorded impressive enrollment gains during the past year. The Blue Shield Plan serving the Province of Ontario registered a net gain of 379,092 members, the Pennsylvania Blue Shield Plan added 247,435 members and the Chicago Plan 166,691 members. Two Blue Shield Plans had enrolled more than 60 per cent of the population in the areas they serve at the end of 1959. The District of Columbia Plan has more than 68 per cent, while the Delaware Plan has enrolled almost 61 per cent.

"The acceptance of Blue Shield as a means of helping to pay medical-surgical bills is reflected in the growth of these Plans in the past decade. Blue Shield has grown from a membership of more than 16,500,000 in 1950 to its present figure only through the offering of a program that has continued to meet the demands and needs of the American public," the report concluded.

Defends Use of Brand Names On Prescriptions at Testimony

The issue of generic names vs. trade names in doctors' prescriptions came to the forefront in the Senate Monopoly Subcommittee's investigation of the drug industry.

Austin Smith, M.D., President of the Pharmaceutical Manufacturers Association, testified at a Subcommittee hearing that "behind brand names lie the reputation, reliability and skill of the manufacturer." He said use of generic terms would restrict a physician's choice as to drugs and would transfer some of the physician's responsibility to the pharmacist.

"By brand name prescription, the doctor orders for a patient a specific product in which he has absolute knowledge of quality, purity and any side

(Continued on Page 738)

51 to 49...it's a boy!

94 to 6 BONADOXIN® stops morning sickness

When she asks "Doctor, what will it be?" you can either flip a coin or point out that 51.25% births are male.[1] But when she mentions morning sickness, your course is clear: BONADOXIN.

For, in a series of 766 cases of morning sickness, seven investigators report excellent to good results in 94%.[2] More than 60 million of these tiny tablets have been taken. The formula: 25 mg. Meclizine HCl (for antinauseant action) and 50 mg. Pyridoxine HCl (for metabolic replacement). Just one tablet the night before is usually enough.

BONADOXIN—DROPS and Tablets—are also effective in infant colic, motion sickness, labyrinthitis, Meniere's syndrome and for relieving the nausea and vomiting associated with anesthesia and radiation sickness. See PDR p. 795.

1. Projection from Vital Statistics, U.S. Government Dept. HEW, Vol. 48, No. 14, 1958, p. 398.
2. Modell, W.: Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347.

Roerig Rx

New York 17, New York
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

Say you saw it in the Journal of the Michigan State Medical Society

Defends Use of Brand Names

(Continued from Page 736)

effects that might have importance for a particular patient," Dr. Smith said.

R. B. Robins, M.D., of Camden, Arkansas, who accompanied Dr. Smith at the hearing, submitted a similar statement. He said he used trade names because: "It is simpler to write such a prescription and I can be assured that no substitution will be made by the druggist—this assures me that the patient will get top quality."

Dr. Robins appeared before the Subcommittee as a private practicing physician and not in his capacity as a member of the AMA Board of Trustees.

Despite this testimony, Sen. Estes Kefauver, (D. Tenn.), the Chairman of the Subcommittee, said he hoped physicians would give "serious thought" to use of generic terms. He contended that doctors thus could bring down drug prices by opening the way for small manufacturers to give the major companies "some good, honest, old-fashioned price competition."

Death Rates About Same Now In Poor or Wealthy States

"All states have increased their spending between 1930 and 1957 for medical care—a key factor in the 37 per cent drop in the national death rate since 1930."

So states George Bugbee, president of the Health Information Foundation, as the Foundation reports research in mortality rates and overall health levels.

But the effect of increased spending for health is reflected most dramatically in the low-income states, where conditions were worse to begin with. "As the poorer states have improved financially," said Mr. Bugbee, "they have greatly stepped up their spending for health services and facilities." Higher incomes in the poor states also have undoubtedly improved educational nutritional levels to help lengthen the life span."

In 1930, H.I.F. found death rates were 13 per cent higher in the 10 states with lowest per capita incomes than in the 10 wealthiest states. By 1947 the gap had virtually closed—death rates in the poorer states were only 1 per cent higher.

Despite the general similarity in mortality rates in low-and-high-income states, there are still significant differences between the groups. The Foundation reported, for example, that the low-income states have relatively poor mortality records during infancy, childhood, and even the adult ages. At ages 65 and over, however, the mortality record is actually better in the low-income states.

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MEDICAL PROTECTIVE COMPANY
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Foreword About Aging Articles

IN A RECENT report to the World Health Organization, specialists from Brazil, Canada, the Soviet Union, Sweden, Switzerland, and The Netherlands criticized the tendency to exaggerate the perils of the increase in the number of older persons.

Governments, universities, the labor unions, the Junior League, and a variety of other agencies, as diversified as those named, are all attacking what is called, "The Problem of the Aged."

More recreation, medical care subsidy, special housing, and a list of baby-sitter-type provisions are among the suggestions for those whom we tenderly call "Senior Citizens."

It appears to the Geriatric Committee of the Michigan State Medical Society that an artificial problem is being created through artificial provisions of the economy.

It is recognized that retirement is forced on many men and women at an age when they are still physically and mentally fit to continue as productive citizens.

While the span of healthy years is increased by medical science, others arbitrarily have reduced the working years.

Many of our own neighbors who have been classified as "too old to hire" are actually younger than the President of the United States and many other prominent governmental, industrial, business, and cultural leaders of the world. It is only justice to allow older men and women to keep on working to preserve their independence and dignity.

Investigations and inquiries show that there is just one predominant complaint from our "Senior Citizens," that of boredom.

This issue of THE JOURNAL of the Michigan State Medical Society is dedicated to the concept that most of our "Senior Citizens" are well and normal people. We must not deprive them of the active constructive lives they are capable of enjoying.

* * *

Dr. Norman Vincent Peale tells this story:

Somewhere in the South, across from a filling station, there is a sign which reads, "Fortunes Told that Guarantee the Future."

A motorist stopped and asked the attendant about it one day. He was told that an old colored woman lived there who was something of a local celebrity. "Everything she touches perks up," he added.

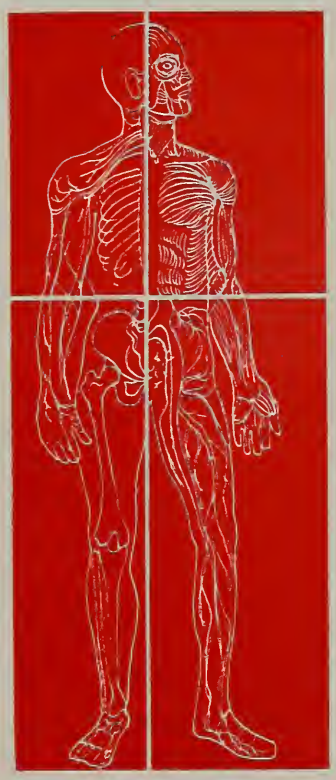
The traveler was feeling very despondent, and though he had little faith in fortune tellers, he paid her a visit.

"Put out yo' hand, Honey," he was instructed; and he did.

The old woman peered intently at the lines.

"Honey," she said, "You ain't done livin', yet!"

That was all he got for his money, and he drove away feeling cheated, but those words kept going round and round in his mind, and gradually that vital thought penetrated his depression and let in new hope and optimism.



Old Age: The Completion of a Life Cycle

Thomas N. Rudd, M.D., F.R.C.P.
London, England

I

IN THE RECENT history of Public Health, three clear stages can be defined: the stage of modern sanitation, which led to the control of epidemic disease, the stage of maternity and child welfare, and the present stage, in which the predominant problems are those of old age. In facing today's difficulties, it is worth asking ourselves how the earlier triumphs of public health were gained.

Slums have been greatly reduced in Western countries, and those who lived in such conditions have improved in health and in social behavior. Epidemic disease is greatly reduced and infectious disease hospitals have been turned over to other purposes. Maternity and child health can show similar advances; never has childbirth been safer or juvenile health more assured. The results are manifest in personal well-being, in statistics and in our under-crowded pediatric wards.

The credit for all this does not lie with the doctors or the politicians. The doctor's part has largely consisted of "mopping-up operations." Nor can the legislature be given all the praise: in fact, no early law or regulation has made any difference.

The common factor of the early advances seems to have been an upsurge in the public conscience, a refusal to allow more inhumanity of man to man, or to allow certain conditions of living to be perpetuated. Small examples, repeated over a widening area, stirred public consciousness until it was fully awake, and with enlightened public opinion, medical and social science could advance with legal support.

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There is no reason to believe that it can be otherwise in the matter of old-age care. Concentrated efforts thus far hardly have touched the problem, which in fact seems to grow faster than the remedy. What has happened is the introduction of a new and unperceived factor—the view, begun by politicians and too readily accepted by the electorate, that the State can and should solve the problem. It is now clear to the most obtuse politician that the State cannot; but voters are too emotionally involved to renounce such a comfortable idea. Organised religion, too often content with saying heart-easing things, so far hasn't spoken. We are therefore facing a snowball situation of increasing magnitude, the size of which we cannot lessen because we are trying in the wrong way. It is not that our tools are too large or too small; it is simply that they are not the right ones to use.

II

Modern conditions tend to make most of us live on the surface, unaware of our turbulent unconscious desire. It is these latter, in ourselves and in our patients, which are creating the geriatric problem. "Perhaps the most outstanding threat to the aged is the attitude of the surrounding culture towards ageing itself. Many western cultures tend toward an attitude of elder-rejection. Such cultural exclusion of the elderly is based upon sociological characteristics which add up mainly to overemphasis of the values of youth and youthfulness. The ageing person . . . often develops a sense of minority exclusion. Since the older person has himself contributed and participated in these social attitudes, he experiences a psychological phenomenon, immanent in ageing, which may be termed self-rejection."[1] The process is more or less unconscious, but the more unconscious it is, the more will the person turn from old age as unpleasant, dirty and burdensome, with perhaps a compensatory over-concern with childhood and youth.

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A widespread attitude such as this is highly inconvenient to the needy aged who want help quickly, as well as frustrating for the enlightened members of the community who are planning, not only for those who are already old, but for their elder-rejecting contemporaries who may themselves be in need in another ten years' time. But these ill-effects are small compared with the danger of such attitudes, for it is these very attitudes which precipitate the psychiatric ill-health, the major threat to happiness and security in the declining years of life. Clearly, a major work of reorientation is necessary. The problems of old age have to be faced, not only by the nation which considers a burden in terms of increased taxation, but by every single person.

III

Many people behave as if the life's work is accomplished between the ages of sixteen and sixty-five, childhood being merely a time of preparation, and the function of education to impart knowledge which will increase earning capacity. It is the adult life which matters, and when retirement is reached, the only consolation is to shine among the neighbours as one who has been financially successful. Failing this, one can only mark time, awaiting death. Such a concept is comparatively new—two or three hundred years old at the outside—and was preceded by centuries when life was regarded as an entity, a complete thing, its constituent stages being of equal value in the sight of God. By this philosophy, life was reckoned as a whole, with each stage having its characteristic attitudes, its own lessons to be learned, its own dangers to be faced, and its own contribution to make to the life of the community. That old age is as much a necessary stage as childhood needs to be emphasized.

The fundamental difficulty in completing the last stage of growing up is the extremely unattractive picture which we have made old age present. As Jung continues, "A human being would certainly not grow to be seventy or eighty years old if this longevity had no meaning for the species to which he belongs."[2] We paint age as undesirable on many counts; we overstress its dependency and undervalue the cultural gifts which old age can bring. But this very dependency is not in itself an entirely undesirable thing. Like other things, including a refusal to accept one's limitations, it is ambivalent, capable of being beautiful or ugly, depending on how it is practised. As to the cultural values of age, however much we may despise them, they are part of the heritage of our civilisation. It is to our elders that we owe our deep feeling, so easily lost in the competitive turmoil of active life, that the meaning of life transcends ambition and material success, and that true happiness is independent of both, that the religious teaching which brought us comfort in childhood remains valid even though we had forgotten it, and that our ability to learn willing renunciation of things we are certain to lose is as valuable a part of education as the acquisition of a trade skill. Nor is the maintenance of cultural values the only benefit age confers. The old are not nearly as useless as they and we often think. They contribute to the national economy directly as well as indirectly. Furthermore, as a recent speaker[3] has insisted, the stimulus they give to younger people to save for the future is such that if old age did not already exist, it would be necessary for a Chancellor of the Exchequer to invent it.

IV

It is an unfortunate thing that many people, doctors, nurses, social workers and even clergy, have very little understanding of what it feels like to be old. This is the reason for the defective approaches we so often find. We are all familiar with the antipathy which looks on old age as dirty and repellent, and the aged themselves as better dead. The patronage which fundamentally despises age and which talks down to it, is an equally sterile approach, unproductive of good because of the lack of identification between the parties concerned.

What is so easy to forget is that our feeling about ourselves do not fundamentally change as age advances, even though mentation may slow and memory begin to fail. We still retain our personalities and are hurt if they are ignored. It is then no wonder that people who have throughout their lives grouped themselves into clubs and societies according to their interests and achievements should object to be classified into undifferentiated old people. It is in the neglect of the personality, that we who are doctors, nurses and social workers most surely fail. The practice of referring to our hospital patients by the group-names of "Pop" and "Grandad" is inconsiderate of them, as well as being hurtful to our own approach. Apart from respect, the aged have certain other needs in common with the younger age-groups. Above all, they need security. Volumes have been written on this need in children. To the aged also,

insecurity is a perpetual threat, in the realms of companionship, of place of residence, and of health.

Security of tenure in the home is, at least, in some degree under our control, if we will pay attention to the essential services which support home-care. Home-Helps, "Meals on Wheels," day-visitors and night-attendants all play their part in providing security. Residential hostels which provide sick rooms to avoid unnecessary admission to hospitals all do their duty, but these efforts will be ineffective if family doctor, nurse and home-matron have omitted to learn the art of nursing the elderly-frail. Many old people who are "problems" where they are living, would not be so if only someone would learn the technique of handling them.

A further need is the ability to choose, in itself merely an extension of courtesy to the personality. Choice is one of those things we must learn to relinquish as we age—the old person is well aware that in the big things of life he has little enough to say; to choose one's course in the little things is none the less healthy. If one cannot choose for oneself where to live, it is at least good to choose between tea and cocoa, between cheese and fruit, and whether to spend one's scanty pocket money on sweets or tobacco. Even the choice of a sitting-out place in a residential home helps to dispel apathy and senile dementia. Such choices can be arranged without difficulty by families and those who order the lives of dependent old people. When the choice is not offered, we have failed in our duty to our charges who depend on us.

Religious consideration is a further need. The loss of our religious sense is no reason to forget the strong religious feelings of others, especially the aged. In many old people, the religious sense is dormant, and may need arousing. It is, at any rate, not identical with that in younger people. Like everything else, it changes with the years. Thought becomes mellower and we view the present, not only in the light of the past, but especially in the light of the future. Old people may thus become more tolerant of other varieties of faith: they do not, however, become less "denominational" and we have no right to think that any kind of religion will do for them.

The reason for rejection of old age is not, however, the proximity of death, nor the quiet decline of our powers as we sing into mellow senescence: it is rather the brutal assaults which may suddenly come upon the personality, the sudden deprivation of faculties of speech, sight and movement and the loss of security and companionship. Some such are clearly inevitable; they are hazards common to all stages of life. In later years, these threats seem more menacing and their reality tends to obscure the fact that the danger is not inevitable. Realisation that these threats can often be averted and that ill health is the abnormal state rather than the normal, restores to us a sense of proportion. Only too often, faulty patterns of living during maturity, wrong eating, drinking and smoking, and even more importantly, faulty thinking, exert their effect during postretirement years. Even more important factors in ill health are the neurotic fears and tensions to which the modern world is prey. These are fundamental in producing not only frank anxiety states, but stress-conditions such as peptic ulcers, asthma, hypertension and other illnesses, the origins of which are now recognised as psychosomatic. Even senile dementia, formerly regarded as being arteriosclerotic, is now held to be primarily the result of emotional factors, the vascular changes being the "last straw" causing breakdown in an organ already overburdened by anxieties and stresses. Disability and ill-health are clearly not entirely preventable but can to a large extent be avoided by healthy living in early life and especially in the pre-senile years. Most important of all is a philosophy of life which excludes anxieties and which inculcates patience, cheerfulness and courage. Regarded in this way, advancing years present, not an inevitable threat, but a challenge to the whole personality to accept the fullness of experience, rather than to confine it for ever within the limitations of the middle years.

V

Once the philosophy of old age has been worked out, we are enabled to approach its problems rationally. We can now see old age as an essential stage both for the individual and the community, and think more of what old age is contributing (though often in silence) rather than the burden it is said to impose. The burden has been much exaggerated of late and the problems are, in fact, only insoluble if wrong methods are used.

The Welfare State's greatest contribution to modern thought is surely that legislation, aided by taxation, cannot solve problems whose basis is primarily moral. Of such nature are those we are now considering. When old people have families whose moral basis is sound, no problem really exists. The problem arises only (1) when a heavy load is falling on the only young members of the family, (2) when the old person has no younger relatives, or (3) when the family lacks a proper sense of responsibility. Medi-

cal and home-care services should normally be able to cope with the first group in their stride. The real stress and strain arises in the other two groups and it is with these people that the inadequacy of the Welfare State becomes manifest. These two groups comprise the lonely and rejected on whom fall the highest incidence of senile dementia. They are the frail, the mentally-deteriorated, the confused, and those unequal to independent living. They throng the wards of general, geriatric and mental hospitals, and present the greatest difficulty in discharge.

The difficulty is insoluble financially, for even if the enormous expansion of hospitals which the situation demands could be paid for, the additional nurses required could not be found in countries where there is full employment for women in the production of luxury goods. Highly-taxed communities are not only unwilling for further taxation, but are discovering that they have overstepped economic levels. Trades Unions demand higher wages, taxes increase, and the cost of living rises. In Britain, at least, a deadlock has been reached. Mental hospitals are overcrowded (largely with older people for whom no home can be found) to the point of inefficiency because the community at large is unprepared to make the sacrifices required. Nor are the real victims the only sufferers; the larger world cannot be unaffected by what is happening.

The well-being and proper care for the aged and mentally sick is not only a moral duty falling on the fit, but also a psychic necessity if the latter are to remain mentally fit. When the State is helpless, common sense and moral responsibility must assert themselves and take over. For too long have we answered the question "Am I my brother's keeper?" in the negative, pointing to the State as the responsible object.

The road back to individual responsibility will not be an easy one. The ground will need careful preparation by moral and religious leaders and a host of small examples will be required before the national conscience can be aroused. We can then await a solution to our present problems, with the same expectation with which our fathers awaited their success in the fields of hygiene and child care. Meanwhile, a start can be made by activating our own religious bodies, professional and industrial guilds to take greater responsibility for their ailing members. Medieval trading companies, such as the Merchant Venturers of Bristol and the great City of London Companies had a long tradition of charitable care, which modern Trades Unions could emulate. In assuming responsibility for their fellows, more Christians could follow the charitable example given by the Jewish faith: too often organised charitable work is left to Catholic Religious Communities and the Salvation Army. Until every thinking man of good will accepts a share in responsibility for others, the problems will remain unsolved. Comforts may have to be sacrificed and standards of living lowered, but against this we shall be able to set quiet consciences, a deepening of the personality and a chance of personal old age, untroubled by mental clouding.

VI

Old age may still hold sadness for us. That may be not only inevitable, but essential for our maturation. We shall still want to add life to years, but only so that life shall be filled with experience. We know that "there are no fields of amaranth on this side of the grave. There are no voices, O Rhodophe, however sweet, which are not soon silent. There is no name, with whatever emphasis of passionate love repeated, whose echo is not dim at last." We do not ask that life should be different; we only ask to be able to accept it, and to have such physical and mental health as will enable us to live it on the highest plane consistent with our experience and abilities.

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Retired Executives Organize

Retired executives in the San Francisco area have organized themselves into a group which advises small business. John S. Curran, a 74-year-old retired banker, is chairman of the group. He recommends the activity as a way of keeping fit and maintaining interests, as well as a source of great personal satisfaction. William B. Logan, a 37-year-old management consultant, originated the plan of operation. He is now helping top-flight retired executives in the San Diego area organize a group similar to the one now functioning in the Bay area.

How Well Are Old People?

Robert T. Monroe, M.D.
Boston, Massachusetts

HOW WELL are old people? To find the answer to this question has been a principal goal of the Age Center of New England. Now, after five years' search, it is in a state of informed confusion on the matter. Is "sick" the opposite of "well"? "Sick" and "old" at any age are terms that vary in meaning according to who uses them and for what purpose. There is the lad too sick to go to school but very active at home, the young thing repelled by the advances of an old man of thirty, the young man rejected by his draft board who did a great job in defense work, the old man unfit for his job who regains health promptly when employment returns, and the grandma who is short of breath when idle in her chair but full of life when there is opportunity to be of service.

If sickness is a pathologic state in some organ or tissue, then all old people are sick. When one considers all that can happen to the body through sixty years of interaction with this world of things and people, from canities to hemorrhoids, and at every location in between, one is forced to admit the impossibility of old age free from present disease or the scars of former diseases. And death, which is the extreme degree of sickness, is to be expected by all old people. Hunt[1] has pointed out that in 1955, 56.5 per cent of the deaths occurred in people over sixty-five, and another 25.8 per cent in people forty-five to sixty-four years old. Yet all reports persist in showing that less than 5 per cent of old people are confined to institutions of any sort and that the great majority of the rest consider themselves healthy and well. These diametrically opposed answers can only mean that different measuring devices are used.

THE AUTHOR
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Physicians employ one set of measures. Our whole training is toward the identification and alleviation of illness. We would do well to be alert to how constricted this focus is. We have noticed how our friends at ordinary social gatherings regale us with their medical experiences, in the apparent belief that we can have no topic of greater interest. This should make us suspect that our patients, in hospital, office or home, tell us only what they want us to hear. Their focus ranges over their total selves as objects greater than their ills. They would like to be free to choose when to resort to a physician, free to select him, and free to follow or to reject his advice. How much they tell him depends on their perception of him as a safe counsellor and of their situation as likely to be helped. They get a great deal of their diagnoses, interpretations and courage from friends and relatives. Many of them feel at a disadvantage on physical examination, some feel over-awed by modern medical tests, few escape the delusion that by these means we know all that we need to about them.

The study methods of the Age Center of New England were designed to permit people to describe themselves as fully as possible. Our "core" studies have been on a group of independent, self-motivated, apparently healthy aging men and women. They pay a small annual fee for membership and submit voluntarily to a great many interviews which describe all aspects of their lives and to a number of psychological tests. They are told that this is for research, that no service is offered, no physical examination done and no diagnosis or treatment given. They are described as our authorities who come to us to give us the facts by which we can define their group. To our gratified surprise, they have come in adequate numbers, and most of those who join have continued with us.

The Cornell Medical Index Health Questionnaire, produced and copyrighted by Cornell Medical School, was adopted as an instrument that might tell us well

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From the Age Center of New England, Boston Massachusetts.

what the members think about their symptoms and illnesses. It consists of 195 questions which are checked yes or no privately by the member, and requires on the average less than half an hour to complete. It is discussed with the member at a later interview when his general health and medical experiences are more fully set down. When the request came for this paper, the results of a study of 536 CMI tests were being analyzed for publication elsewhere. Since the present deadline is the more imminent, we shall now deal largely with impressions and conclusions.

How sick is this healthy aging group? They are active enough to come to us, mostly by public transportation, involving forty-four subway steps, two city blocks to the second floor of a hotel (the hotel elevator usually is scorned), at a cost to themselves of at least forty cents. They have the reputation, in bad weather, of being a little more reliable than the staff in keeping appointments. They have had a little more than average amount of formal education. They seem to have been successful and financially independent most of their lives, although very few of them are well-to-do by today's dollars. We suspect that they dress for their Age Center interviews with more than ordinary care and neatness, but we have a feeling that this is more an expression of habitual self-respect than any possible deference to us. They clearly are in charge of themselves. Many are fully occupied and involved in affairs, many others are looking for new activities. They appear to appreciate both the opportunity to contribute to researches and to work out their problems in their own ways. About 16 per cent of them are less than sixty years old; 44 per cent are between sixty and seventy; 32 per cent are between seventy and eighty; and 7 per cent are over eighty years of age. We agree with them that they are healthy and we have good hopes that they can fairly represent the situation of many people of their age elsewhere in the country.

These 536 individuals had, on the average, several times more affirmative answers to the Cornell Medical Index questions of symptoms and facts than have been reported for young adults. Women had distinctly higher scores than men in every category. But there was no tendency for the scores to increase progressively with age. The highest scores, in fact, were among the early aging group, up to sixty-five years; those over eighty years of age scored less than the average for the whole group. It is tempting to say that this is because the older people have forgotten or are denying their troubles, but these evasions are by no means confined to old people. They will be discussed further on. The soundest explanation seems to be that the early aging individuals were more actively concerned with present threats and anxieties in business and at home and therefore were more conscious of bodily interferences, whereas the older individuals had passed beyond them or escaped them.

A review of the responses also suggests that elapsed time is the chief reason for the scores being higher than in young adult life—a lot happens and accumulates in forty to sixty years. In the somatic disease categories this becomes clear: Practically every one in the group wore glasses. One in seven were hard of hearing. Many had chronic disorders of the upper respiratory tract, but very few had asthma or hay fever. About 20 per cent had been told by their doctors that their blood pressure was too high, but almost as many had been told by the same authority that it was too low. One in eight had been told that they had heart trouble and even more had cramps in the legs. More than 50 per cent had lost more than half their teeth. Twelve per cent of the men and 6 per cent of the women had been told that they had stomach ulcers. About one in ten had constipation and had had jaundice. Muscle and joint troubles were experienced by about one in every twenty men and one in every eight women. More than 10 per cent had fainted occasionally and also had been "knocked unconscious." One fourth of the women had vivid recollections of menstrual troubles. Ten per cent of the men had been treated for what may have been venereal disease, and one-third of them had had a hernia. Half of both men and women had nocturia. One fourth of them had had scarlet fever and one tenth may have had rheumatic fever. Five per cent of the men and 25 per cent of the women had been treated for anemia. Only 3 per cent had diabetes. Eight per cent of the men and 21 per cent of the women had been "treated for tumor or cancer." Only 8 per cent of the men and 14 per cent of the women "suffer from any chronic disease." About 10 per cent were underweight in their opinion and more than 20 per cent were overweight. One in five had varicose veins, and about one in six had had a "serious injury." Almost exactly half of the men and women had had a "serious operation."

It is possible that these average experiences with symptoms do not tell as clearly as they might do what the existing state of health—or sickness—of these old people really is. To get further light, a physician and a psychiatrist were asked to consider each of the 195 questions as to their importance—or

threat—to the responder, and to rank them on a 1 to 5 scale. Of course it turned out that the two often disagreed, so a third party put together those where he thought the agreement was strong, and there were 102 of them. Eight per cent of the men and almost 5 per cent of the women had no "yes" answers to any of them. Most of them had one to five "yes" answers, but 16 per cent of the men and 34 per cent of the women had more than eleven. One woman affably agreed to eighty-six questions, several agreed to more than fifty, yet they are members in good standing of this healthy group.

How much of a burden are these people on the medical profession? Forty-six of them asserted that they have no physician or don't believe in them; their average Cornell Medical Index scores were about half of the scores for the whole group. Seventy-eight did not answer and were not pressed for one. Twenty-four used clinics in teaching hospitals and 390 had their own doctors. But very often they had not seen their doctor for years, or he was one that they had never seen but might call on in need. Only a small percentage of them submitted to regular check-up examinations. How often they visited their doctors appeared to depend as much on the doctor's style of practicing medicine as it did on the patient's need. Thus one woman had been persuaded to join a clinic which was conducting studies on osteoporosis. She went to it faithfully and when other symptoms appeared, she was referred to other clinics also. As time went on, the advised visits became so frequent that she acted as a volunteer worker in the hospital to simplify her schedule. When she came to the Age Center, the hospital reported that she was a hypochondriac, absorbed in her symptoms, but her version was that she was merely obeying orders and would be greatly relieved to have less medical attention.

The Age Center has corresponded with the physicians of its members, when permitted, to get their point of view on the health and safety of their patients. The replies have been courteous, prompt and amusing. Most of them are to the effect that there was nothing wrong with this person when last seen. Only one advised us not to add to his patient's heavy schedule. Around twenty of my own patients have joined the Center. In my office, they are healthy except for specific details, but on the Cornell Medical Index, they often answer questions affirmatively which surprise me. I am convicted of being supportive or blind, but I suspect my colleagues are also.

Some of the members have ready recall of symptoms, illnesses and accidents no matter how far back in the past. Others do not, and women as often as men. Women who during the greater part of their adult lives spent one fourth of their time with menstrual distresses and the rest of the time getting over or looking forward to them, may be excused if in their old age they still respond affirmatively to questions about them; but some answered in the negative. At the present stage of our studies, it is our impression that the factors determining responses are not the quantity and quality of troubles so much as character variables—sturdiness, security, confidence (these ordinary words leave our psychiatrists and psychologists free to use their own more specific terminology).

The members respond variably to the challenges in the questions, "if you can answer yes," "if you have to answer no," "usually," "constantly," "suffer." Many who had had fractures denied "serious injury." For some, a "serious operation" was a tonsillectomy or hemorrhoidectomy; others said no because their cholecystectomy or herniorrhaphy was uneventful. One man who was able, in narrow truth, to deny questions as to nervousness had had a series of electro-shock treatments. Another man of eighty years could say "no" to pain in the chest; at sixty he had many severe anginal attacks while his wife was dying and his business failing; but he remarried, started a new business, and now is successful, happy and free from chest pain. Personality variables again seem to prevail. One person cooperates with every question and overstates his case. Another meticulously crosses out a word or adds a qualifying phrase ("sometimes," "yes, but don't suffer"). Still another seems to resent exposing a soft spot in his armor and so denies all that he can. The only difference between all of them and a younger group seems to be the complexity of personality that time and experience create. All of them associate with us for months as healthy and normal individuals.

The responses of these members to the fifty questions on inadequacy, depression, anxiety, sensitivity, anger and tension were also several times more often affirmative than has been reported for normal young adults. Much research needs to be done to determine why this is so. Undoubtedly, some of our members have been disturbed all their lives and have made such adjustments as they could, with success enough to pass for "healthy" and "independent" and "self-motivated." Some of the most secure individuals have been buffeted severely by grief, by loss and by change. One is enormously complex, another is simple and natural in coping with whatever comes along.

Culture, family mores, religion, the work-a-day world give support here and cause stress there. The capacity to act, to choose, to dare, to feel, is not only the current balance between all sorts of psychological systems at superficial and deep levels; it is also the steadily diminishing sum of living central nervous system cells and pathways.

There was the member who had retired ten years ago after teaching the same grade in the same school for forty-five years, who had lived in the same apartment with the same sister for sixty years, who had never had a day off for illness and could recall no class that was outstandingly good or bad, and who has no problems now. Was she healthy? How will she behave when trouble comes? There was the member who built up an engineering company from pennies to prominence in his middle years and at the same time became much sought after in community and charitable projects. Yet, during a space of ten years, he had to spend at least half of his time in a hospital for the pre-antibiotic care of osteomyelitis. Was he sick? One cheerful, friendly man of eighty who in retirement from teaching had made a significant career as an author, admitted with unanticipated agitation, "I never got over the loss of my wife thirty-eight years ago. I keep trying to adjust."

The somatic and psychological experiences of an individual strongly influence the confident and disciplined use of his body. More precisely, the balance of available physical processes remaining from a life-time of combat with environment and of available memories, habits, perceptions and central nervous association systems constitutes physical and mental fitness in old age. Old people have more than the young to be sick with and sick of, yet they call themselves well if they view their balance as satisfactory and sick when they find it less so. The optimistic over-all picture given by Dr. Ethel Shanas[2] is fully justified. Individually, "as a man thinketh in his heart, so is he."

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Stockpiling Virus Vaccines

Stockpiling influenza vaccine for use against future epidemics is possible now, says a University of Michigan virus researcher, because of a composite vaccine which is effective against a wide variety of flu strains.

Fred M. Davenport, M.D., professor of epidemiology at the U-M School of Public Health and director of the Commission on Influenza of the Armed Forces Epidemiological Board, believes the nation should build such stockpiles, although he admits it would entail a "calculated risk."

The alternative, he says, is an endless series of crash programs to fight each new form of influenza.

The value of a multiple vaccine is somewhat controversial because of disagreement on the nature of changes which occur in the flu virus. Some investigators say the virus changes from year to year in an endless variety, and maintain that any vaccine for existing strains of the disease would quickly become outdated.

Others, including Dr. Davenport, believe the various strains can be cataloged under six major "families" of viruses, and that these recur in cycles. The U-M researchers currently are working with a composite vaccine which protects against the six families of flu virus. Elements of all six are combined in a mineral oil emulsion. Dr. Davenport says this vaccine should protect a person for about three years.

The "Very Sick" in the Older Population

Ethel Shanas
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THE POPULATION of the United States sixty-five years of age and older is now at about fifteen and one-half million persons. Between 3 and 5 per cent of these people are in institutions; the remainder are living in the community. It is with those older people living in the community that this report is concerned.

Medical examinations would undoubtedly discover pathology of some kind in many of the fifteen million older people who live in their own homes. The presence or absence of such pathology among the aged, however, cannot be employed as a criterion of the use which older people now make of medical services. In general, older people who use medical care are those older people who think they are sick. Obviously, these self-definitions of what is sickness vary from individual to individual. Most physicians have seen in their practices both older persons with acute illnesses who did not feel that they needed medical attention and older persons who were sure that they were much sicker than the doctor thought they were.

How sick are older people?† Despite extensive self-reports of specific diseases and general physical complaints, most older people think their health is good. A minority of older people think they are sick, and a still smaller group think they are "very sick."

How large is the "very sick" group in the older population? Using self-reports of diseases and physical complaints as a basis of estimation, the "very sick" group in the non-institutional population aged sixty-five and over is estimated at between 10 and 14 per cent, or from 1,550,000 to 2,170,000 persons. These estimates are derived from a study of the health needs of older people made by the National Opinion Research Center of the University of Chicago under a grant from the Health Information Foundation. In this study, using methods comparable to those employed by the United States Census Bureau, a sample of all older people in the United States who were not in institutions was located and interviewed in the spring of 1957.

Ten per cent of all persons interviewed in the National Opinion Research Center study may be considered in the "very sick" group. If those people located in the general population who were "too sick to be interviewed" are added to this group, the proportion of the "very sick" in the older population rises to 14 per cent. The "very sick" in the older population are estimated to be from 9 to 11 per cent of those aged sixty-five to seventy-four years, or about one in every ten in this age-group, and from 14 to 20 per cent of those aged seventy-five years and over, or at most about two in every ten. The lower proportions are based only on those interviewed in the study; the higher proportions include those "too sick to be interviewed" but located in the non-institutional population.

The "very sick" differ from the rest of the older population in their general characteristics, and they differ in many of their attitudes toward health and medical care. The "very sick" are more likely to be women than men; they tend to be at the older end of the sixty-five-and-over group; and, if they have children, they are more likely to live with these children than is true for the remainder of the older population. Two of every three of the "very sick" group are women; four of every ten are seventy-five years of age and older. In the remainder of the older population, only half are women, and only three of

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†See Ethel Shanas, "How Sick Are Older People?," *Journal of the American Medical Association*, pp. 169-170, January 9, 1960.

every ten are seventy-five years of age and over. Among those who are "very sick" and who have children, 44 per cent live in the same household with at least one child. In the remainder of the older population with living children, 35 per cent live in the same household with at least one child.

The "very sick" group are a lower income group than the remainder of the older population. Thirty-seven per cent of the "very sick," compared to 11 per cent of the remainder of the older population, report Old Age Assistance or Welfare as their main source of income. Only 18 per cent of the "very sick," compared to 41 per cent of the remainder of the aged, report that they have health or hospital insurance.

Some of the attitudes of the "very sick" group toward health and medical care may be of special interest to physicians. Seventy-one per cent of the "very sick" feel their health is poor. Fifty-four per cent feel that their health is worse than the health of other people their age; and 37 per cent are worried about their health. In the other nine-tenths of the older population only 13 per cent feel their health is poor, only 9 per cent feel their health is worse than that of other people their age, and only 12 per cent report that something about their health worries them.

The small group of the aged who, on the basis of self-reports, appeared to be the "sickest," reported extensive use of medical services. These persons, who were only 10 per cent of the older population interviewed, were almost 20 per cent of those who had seen a doctor during the four-week period preceding the interview, 24 per cent of those who had seen a doctor in their own homes during this time-period, and 31 per cent of those who reported that they had had to make special arrangements in their way of life because of their health—they had to have special diets, or take regular "shots," or make arrangements to have someone do their shopping or household chores.

Those older persons who come to the physician's attention help form his conception of older people and their needs. In a four-week period about 20 per cent of the older people whom the doctor will see will be among the "very sick." Eighty per cent of his older patients, however, will come from the much larger group in the population who consider themselves as basically healthy.

The comparisons between the self-reported "very sick" and the remainder of the older population indicate that these "very sick" represent an extreme group. Because physicians dealing with the aged see all segments of the older population, doctors should be less likely than the general public to attribute the characteristics of the small "very sick" group to all older people.

Gall-bladder Study Found Valuable Despite Jaundice

X-ray visualization of the gall bladder with the contrast agent Telepaque is feasible and valuable even when jaundice is present, and routine use of the procedure may be advisable to evaluate all cases of jaundice.

These, and other conclusions, are made by Lt. Phillip H. Meyers and Lt. Richard W. Barr, both USNR, based on clinical studies at the United States Naval Hospital, Quantico, Va. They report on four cases of suspected infectious hepatitis with jaundice.

The investigators call attention to the fact that stones were demonstrated "in two of our patients suspected of having infectious hepatitis with jaundice, and in whom there had been no symptoms or physical signs to suggest cholelithiasis."

They say adequate visualization can be expected in 85 per cent of cases of infectious hepatitis, especially those with a mild increase of bilirubin in the blood.—*American Journal of Roentgenology, Radium Therapy and Nuclear Medicine*, 82:1028, 1959.

A Stitch in Time

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DEATH CAME, as it must to all men, to 257 physicians whose names were listed in the obituary sections of two recent issues of the *Journal of the AMA*. Eighty-two, or almost a third of our 257 good doctors had reached eighty or more; twenty-one had lived into their nineties. More than two-thirds of the physicians listed were more than sixty-five years of age.

This is an encouraging reflection of the golden age of medicine in which our population now lives. It emphasizes the extension of a full and useful life span with positive living among older persons which medical science has made possible.

Those of us, who are familiar with the retirement habits of doctors, know, without further analysis, that most of these men did not sit and wait for death. They were stricken while in the vineyard of service to others. They were active among their fellow men. They were wanted and felt wanted and needed. They had not been placed on the shelf by modern society like so many others, through forced retirement systems.

The great majority or our people today arrive at the age of sixty-five or seventy in essentially good health. These people need, above all else, the continued opportunity and incentive to use their health and capabilities to the fullest. One of the earliest findings of the American Medical Association's Committee on Aging was that there were no diseases related specifically to chronological age. Recognizing that the primary need is for fitness through active use of capacities among all persons, young and old, the Committee has emphasized the importance of the individual's assuming responsibility for his own health—for his *using* the knowledge of exercise, nutrition and healthful living habits now available in order to achieve in Pollock's words, "maximum longevity for his inherited biological strength."

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The Committee has encouraged physicians to act as health counselors as well as healers to their own patients of all ages—to help these patients develop and follow health maintenance programs suited to their individual needs. As a basis upon which such a health counseling program could be built, the Committee has developed a Periodic Health appraisal form for use by physicians with their patients, particularly those of middle and older years. This form goes beyond the traditional scope of a physical examination in that it is designed not only to obtain an orderly history and physical findings by systems, but to elicit information on exercise and rest habits, dietary practices, recreation, social and family environment, and emotional problems.

This Health Appraisal form can enable the physician to prescribe for *health* as well as sickness. It can help him not only to detect disease or predisposition to disease but to correct any dietary, exercise, emotional or social factors which could in time lead to more serious illness. Many lives have been saved through the early recognition of changes in body physiology which seemed so minor that the patient did not attach sufficient importance to them to seek medical advice or treatment. Too often these early signs are found by accident and too often they are not found sufficiently early.

A systematic approach to periodic health appraisal with adequate records is essential to good medical practice in all age groups. It yields the richest dividends in the middle and senior years when more things are likely to require attention. Those of us who are required to travel a great deal by air derive considerable comfort and reassurance from the knowledge that maintenance crews routinely check aircraft en-

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gines after stated hours of flying time. We can hardly justify waiting until the human machine actually breaks down before we are motivated to action toward prolonging its smooth operation.

The wry comment has often been made that the physician prescribes for others, but never for himself. This emphasizes a basic fact which holds true for all persons: knowledge alone, of health, healthful living habits, and prevention of diseases, is not enough; it becomes valuable only insofar as each individual applies this knowledge in his own life.

One would think that the physician, with the accumulated heritage from generations of medical thinking at his command, with sophisticated knowledge of health, disease and disease prevention, would be among the last to succumb to the degenerative diseases of the heart, blood vessels, and other organs of the body which loom so large in mortality statistics today. Yet, how often do we set the example for our patients through the application of optimum diet and physical exercise? How often do we practice what we preach?

Along with everyone else, we use every conceivable gadget to avoid effort and exertion. Not only do we ride in cars, we don't use our muscles to steer, open the window or apply the brake. We use escalators instead of steps and "golfmobiles" instead of our legs on the golf course. Yet, many of us still eat as if all the world's machinery had to be moved with our muscles. The evidence is mounting that these abuses carry a penalty in terms of degenerative diseases, cardio-vascular disorders and atherosclerosis.

The physician is in a position to set the example for his patients through his own observance of optimum health practices including careful physical examinations at regular intervals. "A stitch in time saves nine" only if one looks for the place where it is needed and not if there is delay until the defect becomes obvious. After many hours of study and conference with other interested groups, the members of our Committee are convinced that the average span of life could be lengthened materially through the application of scientific knowledge presently available to us. If we apply this knowledge to ourselves more effectively, our patients might well follow our example. Moreover, the added years can be transformed into years of positive living and enjoyment.

Retirement based on chronological age is a killer of men. Unless one has something to retire to, it leads to despair through a feeling of rejection and a functional atrophy or mental capabilities through disuse. It magnifies chronic diseases and defects through boredom and depression. It results in a flagrant waste of highly capable man power in America today. Compulsory retirement systems can rarely be justified on the basis of performance.

There is a great need for the American physician to assume a leadership role in redirecting the public attitude toward aging. The negative approach has emphasized increasing helplessness, dependence and inactivity with each passing year after sixty or sixty-five. Let us not become reconciled to the illusion that we need more and more beds for more and more sick and helpless old people. Let us apply the knowledge we have to show the way to a new era of physical and mental alertness throughout life; in increasing growth and maturity for more old people who are well and productive. Let us set an example to society through health maintenance standards within our own profession worthy of their emulation. Physician, heal thyself!

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SFPOGGWTR

Inglewood's (Calif.) *News-Advertiser* published the following letter in its April 26, 1959, issue: "The initials are: SFPOGGWTR, or the Society for the Prevention of Giving Gold Watches to Retirees. Of all the cruel and misguided gestures, this is about the worst. Of all times when a man least needs a reminder of time it is when he leaves a busy normal workaday world and has nothing but time on his hands. It is sad enough when a man, who may still have health, ability and experience to carry on, must leave his job because he reaches a certain age. As he deteriorates in his idleness, the gold watch only serves to make him feel how useless he has become. Besides, any man who has had to arrive on the job on time year after year, already has one or more watches."

Health and Retirement

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ONE OF THE most significant and widely acclaimed achievements of Western industrial society has been the provision of larger and larger segments of leisure time for all. Yet, this accomplishment is often seen as a mixed blessing. Particularly in the case of retirement, it is argued that the attendant problems render this less a major accomplishment and more a deplorable by-product of the industrial order.

Among the alleged negative effects of retirement, the most serious would seem to be the negative effect on health. Although the process whereby retirement affects health has not been specified, there is widespread agreement that such effects exist and that they probably are in some manner associated with the abrupt cessation of patterns of activity to which the organism had become adapted through many years on the job. What is the evidence on which such an impression is based?

First of all, everyone—professional and layman alike—knows of specific cases in which an apparently healthy person retires and almost immediately suffers a radical decline in health or, in fact, dies. Without denying the possibility that illness or death in such instances may be correctly attributed to retirement shock, for the gerontologist who attempts to understand the general effects of retirement, such evidence must be rejected as inconclusive. In the first place, the single case could never legitimately be used as a basis for generalization. Moreover, most people also know of specific cases in which no such decline occurs. The negative case is simply the more salient, the more easily remembered. Appraisal of retirement on the basis of such evidence we call *the fallacy of the dramatic instance.*

Such instances become more impressive, however, when multiplied many times over. The files of every geriatrician are replete with cases which reveal the coincidence of retirement and a decline in health. Yet this, too, must be rejected as inconclusive evidence as to the general effects of retirement. While the number of cases may be impressive, they most probably represent the unhealthy portion of the population, not the retired population as a whole, and thus provide no basis for valid generalization. That is to say, the illusion is one of a grossly debilitated older population; the fact is one of limited contact with a self selected portion of that population. Appraisal of retirement on the basis of such evidence we call *the fallacy of the clinical perspective.*

It would appear, then, that a correct understanding of the overall effects of retirement on health requires a rigorous sampling of the retired population so as to insure representativeness. But this alone is not enough. Some, but not all, of the retired decline in health; but so, in fact, do those who are gainfully employed. The epidemiological problem thus becomes one of comparing the working and the retired population to determine whether the latter is characterized by a disproportionately large incidence of poor health.

At first glance, evidence from such comparisons would seem to provide the basis for judging retirement a killer. Even when age is held constant, a higher frequency of poor health consistently is found among samples of the retired as compared with the gainfully employed. But is there a higher incidence of poor health because these people retired, or did they retire because they were in poor health? Although precisely representative of the retired and the working population at a given time, cross sectional comparisons never can provide the answer to this "chicken or egg" question. Appraisal of retirement on the basis of such evidence involves *the fallacy of ceteris paribus*—in this case, the assumption that the working and the retired samples were equal in health prior to the latter's retiring.

The difficulties inherent in these limited perspectives are obviated by the panel, or longitudinal, study design. Ideally, the panel design involves representative sampling of a given population and repeated contacts of this same sample over a period of time. Thus it is possible not only to make comparisons of a particular characteristic at a given time—as in the case of the cross sectional design described above—but also to make comparisons of changes that occur between

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points in time. With respect to the effects of retirement on health, the panel design provides an answer to the following question: given a certain condition of health among people all of whom are gainfully employed, is a decline in health more likely among those who retire than among those who continue working? Similarly, of course, the panel design provides an answer to the question of whether health is more likely to improve among those who retire than among those who continue working. Initial contact provides the baseline from which changes can be measured; subsequent contact enables one to determine whether such changes occur with greater frequency among those who meanwhile retired than among those who continued working.

The Cornell Study of Occupational Retirement attempts to assess the effects of retirement through the use of such a research design.* More specifically, starting in 1952 at which time all of the respondents in the Cornell Study were gainfully employed, we have completed four subsequent contacts of nearly 2,000 members of the original panel. While the major emphasis of this research has been on attitudinal and adjustment changes as indexed by a sociological questionnaire, questions were included in that questionnaire which seek the respondents' evaluation of their health. In addition, medical inventories were completed by a majority and complete physical examinations were given nearly 500 of the respondents. The Cornell Study departs from the ideal of the panel study design in that practical administrative considerations made it impossible to secure a sample representative of America's older population. Generalization, therefore, should be limited to the Study population. The ability to study changes through time, however, provides a unique perspective on the relationship between retirement and health.

Findings of the Cornell Study

The findings consistently refute the notion that, in general, retirement leads to a decline in health. Although a simple comparison of the retired with their gainfully employed counterparts shows a higher incidence of poor health among the retirees (and thus is consistent with other cross sectional analyses), when pre-retirement health is held constant and changes are compared, it appears that those who retire are somewhat less likely to decline in health. (Table I). In fact,

TABLE I. SHIFTS IN HEALTH (SELF-APPRAISAL) AMONG THOSE WHO HAD RETIRED BY 1954 AND THOSE WHO CONTINUED WORKING THROUGHOUT
(Analysis Limited to Males Who Were 63 to 65 Years of Age in 1952)

	Shifts in Health Ratings:		
	Became Better	Did Not Change	Became Worse
Retired (477 cases):			
Between 1952 and 1954	33%	41%	26%
Between 1954 and 1956	32%	44%	24%
Gainfully employed (783 cases):			
Between 1952 and 1954	25%	44%	31%
Between 1954 and 1956	26%	43%	31%

the retirees are somewhat more likely to improve in health. The point is this: the retirees as a whole are less healthy than the gainfully employed of the same age, but they were also less healthy as a group before they retired. In fact, the evidence suggests that many retire because of their poor health. The effects of retirement, if any at all, are to increase the chances of recovery through less exertion, more rest and the like.

These findings, of course, are subject to the charge that an individual's self-evaluation of health is not "really" an adequate index.** Absence of a relationship between retirement and health, however, is revealed also in analysis of more objective appraisals. Thus, for example, the examining physicians were asked to rate the health of the respondents on a 5-point scale ranging from very poor to excellent. Among those rated as "good" or "excellent" in 1952, 20 per cent had declined in health by 1954 among those who had retired as compared with 18 per cent among those who had continued working. But among those rated as "fair," "poor" or "very poor" in 1952, 58 per cent of the retirees improved in health as compared with only 36 per cent of those who continued working.

Finally, a similar pattern is revealed in preliminary analysis of the review of the medical examinations made by the Cornell Study's medical consultant. Here,

*For a more complete statement regarding the Cornell Study of Occupational Retirement, see Gordon F. Streib, Wayne E. Thompson and Edward A. Suchman: The Cornell Study of Occupational Retirement. *The Journal of Social Issues*, 14:3-17, 1958. This same journal also includes a fuller statement of the Cornell findings relating to retirement and health. See Wayne E. Thompson and Gordon F. Streib: Situational Determinants: Health and Economic Deprivation in Retirement. Pp. 18-34.

**The question of adequacy, of course, requires further specification: adequate for what purposes? For an analysis of the relationships between objective and subjective indices of health as used in the Cornell Study of Occupational Retirement, see Edward A. Suchman, Bernard S. Phillips and Gordon F. Streib: An Analysis of the Validity of Health Questionnaires. *Social Forces*, 36:223-232, 1958.

as a summary evaluation both of the self-administered medical inventories and the more detailed physical examinations, the reviewer was asked to rate the condition of the respondent on a 4-point scale: normal; condition present but not serious; serious condition but stable; and serious and progressive condition.† In the early examination of these data, the most striking result appears to be the predominance of "normal" ratings in every category. Change analysis shows moreover a tendency toward improved health conditions—a tendency toward the normal—through the years of the study.

Selecting as a case in point the summary evaluation of the physician's evaluation of the cardio-vascular system, we find that among those who retired between 1952 and 1954 the condition of 53 per cent remained stable, 26 per cent worsened, and 21 per cent improved in health. The figures for those who continued working are 43 per cent, 27 per cent and 30 per cent, respectively. Between 1954 and 1956, among this same group of retirees, 55 per cent remained stable, 16 per cent worsened, and 29 per cent improved in their health condition. This compares with 57 per cent of the gainfully employed who remained stable; but in this latter group 23 per cent worsened and only 20 per cent improved.

The safest conclusion here, of course, is that no relationship has been revealed between retirement and health. In its consistency with the self-health appraisals and the examining physician's overall evaluation, however, one is tempted to infer that the summary evaluation suggests the hypothesis that, if anything at all, retirement leads to an improvement in health, not a decline.

†This was done for each of the following nine systematic categories: eyes, ears-nose-throat, respiratory, cardio-vascular, gastro-intestinal, genito-urinary, musculo-skeletal, central nervous (including psychiatric) and endocrine. A more detailed analysis of these data will be forthcoming, representing primarily the contribution of the Study's medical consultant, Dr. Kenneth E. Monroe.

Summary

What then do these findings reveal? First of all, although not reported explicitly here, one garners the impression that there is a surprisingly high incidence of good health among the older persons included in this Study. As we have emphasized above, it is not possible for us to generalize to the older population as a whole although there is some evidence to indicate that in many respects the Study population does not significantly depart from the characteristics of the total population of like age.

Be that as it may, the cross sectional analysis of the study findings parallel those of other studies: retirees are, as a group, less healthy than the gainfully employed. But the panel design of the Study shows this to reflect the fact that people who are in poor health tend to retire, not that retirement leads to a decline in health. Overall, in fact, if anything, it would appear that retirement as compared to continued gainful employment may lead to improvement in health.

What the findings do not reveal, of course, is evidence regarding the individual case. Our survey research findings enable one to talk about retirement, not about the individual retiree. But to know about retirement as a social process may help to place in proper perspective one's approach to the individual retiree. To the extent that expectations cause or contribute to illness, the health of the individual may be served by a correct, broader understanding; for this broader perspective can transform the frightening spectre of retirement to an image of opportunity and fulfillment—an image both for the individual and for society of a rich harvest and a rightful reward.

Pension Fund Assets

Pension funds of U. S. corporations had assets of 22.1 billion dollars at the end of 1958, according to the Security and Exchange Commission. Pension fund assets increased 2.8 billion dollars, or 14 per cent during 1958. Corporate securities accounted for 18.4 billion dollars, or 83 per cent of all assets: 11.7 billion dollars was in corporation bonds and 6.7 billion was in common and preferred stocks. Two billion dollars was in government bond holdings, bank deposits and mortgages each accounted for 400 million, and other assets totaled 900 million.

The Geriatrician Meets Gramps from Podunk

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WHEN SPRIGHTLY "Podunk" floats before one's consciousness, there is an awareness of elderly isolation, whether it be at the geographical four corners or the spiritual seclusion of a great city. The majority of old people can paddle along so well because they have outlived their enemies and their disasters.

By one means or another, the golden-age person presents himself for examination. On many occasions, the first interview may be in the home. Here the physician becomes aware of "living under one's own steam" or a possible "secondary citizenship," chaperoned by the younger generation. He also notes the "frugality of existence" or the "comforts of old age" earned by careful planning in previous years. Are tobacco and beer smells the remarkable ingredients of the atmosphere?

The relationship between the two generations is quickly revealed. Some grandmothers like to talk about death and the grave and enjoy watching their "wicked descendants" squirm in an abyss of guilt.

The chief complaint and recording of history could well hide a bolder cause of the call. One must draw out hidden details. Thus a productive cough with sputum for perusal, may be admitted, but the raising of blood comes to the front only following some juggling of conversation. Also, much fearful emphasis is poured out in confession upon some lesser detail that only borders on the status of health, like retinal image retention before sleep.

In reverse, the physician may become an agent of confusion, if too much emphasis is placed upon routine findings of age such as *arcus senilis*.

A typical day's diet is reviewed, and proteins and vitamins are scanned for their inclusion.

Eventually, there comes the examination. Cleanliness, quality of hair and skin are noted. Is there bold evidence of anemia? Should blood studies be made at once? Much is learned from personal housekeeping. Bathroom odors on the person are signicant from the standpoints of physical neglect, spiritual letdown or constitutional incapacity.

The scalp or face may reveal blemishes of early carcinomatous manifestation. One dwells at the eyes, inspects the glasses for "fit" and reading service and inquires as to the identity of ophthalmologist and date of last visit. The ears may reveal a large mass of cerumen, aggravating the incapacity of hearing. The nose cannot be passed by lightly. I have found large plugs of blood and dried mucus that were relieved by the application of vaseline and warm fomentations and the discouragement of the inquiring finger.

The mouth and throat should be carefully investigated for mucous membrane pathology and voice sounds. The teeth, if any, plus prosthesis, deserve intimate evaluation. A few old snags with foul gums and evidences of devitalization certainly demand urgent dental attention. Good chew must attack good food.

The thyroid gland is palpated before and after the swallow. A hard nodule, or mass of goitre, deserves laboratory follow-up in the form of basal metabolism determination and protein bound iodine level before proper referral.

The chest is reviewed for symmetry and nutrition. The breasts of men and women should be palpated for masses. I have found early carcinoma in both breasts, even in the nineties. The lungs are a favorite hunting ground. The absence of sound in an isolated area is as significant as a whole battery of rales. Moist rales at the bases may be the first hint of congestive failure. The many details of pulmonary examination will not be given, but I urge

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performance and diligence. Could pneumonia or tuberculosis or bronchiogenic carcinoma be lurking there? An x-ray requisition is an easy entity to flash and sign.

The heart is examined for size, function and murmurs in mitral, pulmonary and aortic zones. A thyroid nodule and tachycardia may go hand in hand. For mild exercise in the office, I merely have the patient leave the examination table for height and weight measurements, and upon return re-check the heart for rate, rhythm and possible murmur accentuation.

A vigorous man in his eighties with a functional murmur should not be alarmed. However, a younger man in his sixties or seventies, with pre-cordial pain, radiating down the left arm, may require coronary dilators, ambulance, hospitalization, E.K.G. and anticoagulant regimen. Again I emphasize congestive failure in early or hidden form.

Blood pressure in the elderly is an adventure in itself. A nightwatchman of eighty years with a pressure of 220/120 need not be taken off his job, but one of the Rauwolfia alkaloids may become his friend for the duration of life. A diastolic pressure as high as 100 without albuminuria or physical incapacity may well be tolerated. A systolic pressure reaching 180 without symptoms may be watched but not fretted over. A man in his nineties with a pressure of 120/80 cannot be in a bad way. If the situation is so alarming, what is he doing being alive?

Eventually, one must descend to the abdomen. Is the liver border palpable? Is there a mass in the epigastrium? Is there tenderness in the costovertebral angle? One studies for changes in contour, rigidity and rebound tenderness, attempting to correlate with digestive or genito-urinary complaints if any. Gastrointestinal x-ray investigation and intravenous pyelograms should not be jumped at too readily nor neglected if circumstance and symptoms so dictate.

Pelvic organs are often neglected. I have had the elderly complainer recite a gap of fifty years between the last baby and geriatric show of blood before an examining doctor intervened. Inspection, speculum employment and bimanual examination are musts with Papanicolaou cytological study a close follow-up.

The male is reviewed for evidences of disease and changes of contour. Rectal investigation must follow and be included in all pelvic examinations with emphasis placed upon prostatic contour. Enquiry is made as to urinary pattern, and laboratory follow-up is the next step.

The extremities and spine come in for more than a glance. Is there deformity, dysfunction, circulatory impairment or edema? Is a prosthesis worn? If not, is one indicated? Is there a place for physical medicine? An old hemiplegic may still bear some opportunity of rehabilitation. A hopeful attitude is indicated.

I find shoes are a great element of neglect. Old people with sloppy fitting slippers and a sliding rug on a slippery floor descend to their doom. Two pair of socks and a properly fitted pair of shoes may give a spring to an old man's step. The elderly patient must be cautioned regarding paring of corns and digging at nails. Many a gangrenous episode begins at such an easy introduction.

Cleanliness and caution are the watchwords. A large pair of bandage scissors in the doctor's hand will trim hoof-like nails, and a bit of emery paper will sand down the rough edges. The care of the feet is not an act of social degradation; all parts of the body are precious.

The reader, finding a gross omission in my geriatric review, is invited not to commit the same error himself.

In short, the physical examination of the elderly and time for consultation are two entities that should be met whole hog. I see no subtle substitute on the horizon. Let us do the big things that are evident and necessary. Only the wise man knows when to pooh-pooh. There is a miracle in every victory.

On many occasions, we must say again and again:

> "Mourn not for that which is lost, but rejoice for that which is left."
>
> "If you are only a 50 per cent man, be a good 50 per cent man!"
>
> "The stream of life is not always pointed toward the elderly but may well up from him."
>
> "The ancient one can contribute with his talents and enrich the community in which he lives."

Senior Citizens At Work

A study of 313 people aged 80 or over who were still earning money was made last year by S. L. Pressey, professor of psychology at Ohio State University. Twenty-three of the 313 were 90 years of age and included two clergymen, three physicians, three lawyers, and a 94-year-old woman who was a receptionist.

A Timely Note From Molly

Dear Doctor:

AUNT MARY is coming in for her appointment with you on Monday, and I want to tip you off that Uncle John, who is retired, turned sixty-five in January. They had been looking forward to this and thought they were prepared. Money-wise they are. . . . What they did not realize were the changes it would bring in the daily routine which both have followed since the day they were married. She, of course, has not retired (a housewife never retires). However, she no longer has the business of rushing to get him off to work in the morning, then going about her independent day as usual and looking forward to his coming home at night. In fact, having him around all day creates its own set of problems.

For him, the freedom from the demands of his job was a welcome relief at first—like a vacation. But as the days go by and there is nothing that he *has* to do—no fellow workers to greet him or ask his advice —he seems to have lost some of the old sense of self assurance.

They'll weather it, of course, as they have earlier changes, but if Aunt Mary seems bewildered, and asks more questions about "other things" than her physical health, it is because she's wondering how to go about making the retirement years "the best that's yet to be" for her and Uncle John.

You've seen them through some critical times, Doc, and as their doctor, they look to you as "priest and healer." I know that you can be a strong ally now in making this transition easier.

At the moment, I think they only need information and encouragement in finding opportunities to enjoy friends, to help others, to gain new knowledge and experience, to have fun, and to do things they never had enough time for in his working years.

In the back of Aunt Mary's mind, however, is the question of the later years when they won't be so spry, when housekeeping chores, shopping, cooking nourishing meals, or nursing John through illness may be beyond her strength.

She may have heard of social services, but she's proud, you know, and like most older people she would not be able to apply for them on her own behalf. "They've never wanted charity."

She will turn to you. Your job will be much easier if you are familiar with the wide range of these services and help her to understand and use them. They can provide answers to many of these questions.

For instance:

An odd occasional job can do wonders for Uncle John's morale.

A senior center where he can meet others who are "in the same boat;" who sing and dance and swim, compete in games, or putter with hobbies will not only get him out of the house so Aunt Mary can clean those cupboards, but can put a new spring in his step.

Adult classes in high schools and universities, with instruction on how to invest money and make wills, or learn new languages, can increase his ability to manage his own affairs.

A visit to a Family Service Society can relieve personal and family tension through skilled professional counseling.

A call by you or your patient to private agencies who provide homemakers, Meals on Wheels, a housekeeper for a few hours a week, transportation to clinics, can mean the difference between breaking up their home and going to an institution.

Closer contact with churches, and participation in church activities can bring solace and comfort. As you know, many churches support services in homes for the aged, hospitals, neighborhood centers, et cetera.

THE AUTHOR

Molly Guiney

"Molly" Guiney is a member of the metropolitan Detroit Committee on Aging.

Libraries, museums, and public parks and recreation programs, which are open to all, have many special features for the retired. Free golfing in Detroit is one example.

Those who know and work closely with older people in various settings stress the need to enable the older person *to find his way to deal with his problems* as long as he is capable. Increased knowledge and wise use of services can prevent unnecessary breakdown, can restore his ability to help himself and can at least make him more comfortable in situations which cannot be reversed.

Many are still in the dark about:

Income Resources such as Social Security, Government Pensions, Insurance programs to which they have contributed while working and are entitled to, but they must apply for them; Old Age Assistance, Public Welfare, and hospitalization which are available for those without sufficient funds.

Housing such as, liberalized mortgages which can be secured for building a new home or remodeling an old one through the Federal Housing Administration; local public housing developments which give special consideration to those with low incomes over sixty; private builders which are developing homes with attractive features for the retired.

Every community today has some resources for enriching the lives of senior adults—some communities have many. The trick is in knowing how to find them, and how and when to use them.

Did you know that nineteen cities in Michigan have special committees on aging and can supply a directory of services? In every city there is a United Community Services (they have different names) who can give full information on services. In rural areas, the Red Cross, the Grange, the University Extension Service or the County Health Department are good resources.

All this reminds me that when we're talking about the aging, we're really talking about ourselves, and I'd better come in for a check-up before long.

Sincerely,
"MOLLY"

Program for Upper Peninsula Medical Society Meeting in June

Friday, June 17

9:00 Registration and Exhibits
10:30 Harold Mankin, M.D., Mayo Clinic, Rochester, Minn.
"Anticoagulant Therapy"
10:50 Malcolm A. McCannel, M.D., Minneapolis, Minn.
"Some Common Misconceptions about the Eye"
11:10 Lowell Peterson, M.D., Assistant Professor of Obstetrics and Gynecology, University of Illinois
"Lesions of the Cervix"
11:30 Discuss above talks
12:00 Exhibits
12:30 Lunch—House of Ludington

* * *

2:00 Fred J. Ansfield, M.D., Assistant Professor of Surgery, University of Wisconsin Cancer Research Hospital
"Cancer Chemotherapy"
2:20 Stuart M. Finch, M.D., Director—Children's Psychiatric Hospital, University of Michigan Medical Center
"Adolescence"
2:40 Carl Moyer, M.D., Professor of Surgery, Washington University School of Medicine, St. Louis, Mo.
"Fluid Balance"
3:00 Discussion of above talks
3:45 Lowell Peterson, M.D.
"Demonstration of Forceps Delivery on Manikin"
4:30 Exhibits

* * *

6:00 Cocktail Hour
Courtesy Delta-Schoolcraft County Medical Society
7:00 Smorgasbord—House of Ludington
9:30 Orchestra and Dance—House of Ludington

Saturday, June 18

9:00 Registration and Exhibits
10:00 Dr. Geo. Curry lecture by Frank H. Mayfield, M.D., University of Cincinnati Medical School Department of Neuro Surgery
"The Management of Head Injuries"
10:20 C. Edward Stepan, M.D., Chicago, Illinois
"Allergy Diseases in Children"
10:40 Rich. L. Rapport, M.D., Flint, Mich.
"The Fractured Rib—A Significant Injury"
11:00 Discussion on above talks
11:30 Exhibits
12:00 Lunch—House of Ludington
Introduction of Wm. N. Hubbard, M.D., Dean, University of Michigan Medical School
Business Meeting—Upper Peninsula Medical Society

* * *

Afternoon Relaxation of Golf—Boating—Relaxation

* * *

6:00 Cocktails—House of Ludington
Courtesy, Michigan Medical Service
7:00 Annual Banquet—House of Ludington
Toastmaster—Jean Worth, Editor, *Escanaba Daily Press*
Main address—Ann Landers
Columnist of *Chicago Sun-Times*
9:30 Orchestra and Dance—House of Ludington

The Aged: Their Rights--Our Moral Responsibility

Samuel D. Shrut, Ph.D.
New York, New York

THE TRUE test of a society is how it treats its weaker members. The aged person, now generally considered to be a member of a minority group, has been victimized by neglects—legal, financial, and psychological—and by a depressing near-absence of social planning. Such neglects may well offer a striking commentary on our society with its steadily increasing numbers of the aged, more than 29,000 of whom are said to have reached their ninety-fifth year, and in which medical progress promises (threatens?) to increase longevity still more and consequently to further test society's conscience.

Between the respect shown the elderly by the Chinese and the life-shortening treatment accorded their aged by various Eskimo tribes[1] are many variations of attitudes toward, and treatment of, the aged by other cultural groups.[2,3] Generally, a culture will accord to its aged population a kind of treatment that corresponds roughly to the benefits that it can derive from them.[4]

Background of the Problem

The older person in our society has been found to need help in order to live with a greater degree of health, freedom from emotional stress and insecurity, material sufficiency, and creature comfort. Planning for this help has been significantly inadequate, although currently in the United States there is some de-emphasis of our former popular consideration of the aged as "barnacles on the Ship of State." Insurance companies,[8] social service facilities of many communities,[6,9] and even some governmental agencies[5,7] are now increasingly concerning themselves with some thoughtful planning for and with the aged.

A review of the status of the aged in the United States is appropriate at this time, all the more so because of their increasing numbers. While in the past fifty years the population of the United States has doubled, the number of persons sixty-five years and older has quadrupled. Whereas in 1900, one out of twenty-five persons in this country was sixty-five and older, today one out of every eleven is in that group, with the percentages increasing persistently. The statement from a Government publication[10] sums up the population situation succinctly:

> The big increase in the relative number of older persons is the result largely of gains in control of infectious diseases, other advances in the fields of prevention and medical care, and of the general rise in the standard of living. Fewer people die in childhood or in their early adult years; more live to reach their sixties and seventies.*

Economics.—In one most important area, the situation seems to be growing worse. Work opportunities for the older groups have declined decidedly. There is an increasing practice in commerce and industry to retire employees at a fixed age, regardless of the psychologic, physiologic and economic injustice to the compulsorily retired worker. The tight labor market of World War II accounted for the sharp rise in employment of aged persons, but by the end of 1957†

This is a partial report of a doctoral study, "Old Age and Death Attitudes," undertaken at New York University under the direction of Professor Edward L. Kemp, and conducted at The Home for Aged and Infirm Hebrews of New York, under the supervision of Dr. F. D. Zeman, Chief of Medical Services, and Dr. Alvin I. Goldfarb, Chief of Neuropsychiatry at The Home.

*It is of more than passing interest to note that in India, for example, the problem of the aged is practically nonexistent, since the average life span is approximately thirty years and comparatively few survive beyond that age.

It is also estimated that by 1970 there will be in the U.S.A. a surplus of six million women of sixty-five and over as compared with men. Most women are widowed at the average age of fifty-one, with a life expectancy of approximately twenty years more, adding problems not only of singleness but also of employment and economic subsistence.

Remarriage following the death of a spouse is much more common among men. Also, aged men, if and when they marry, do so on a basis of the "inverse ratio," which means that the older the man, the younger will be his bride.

†Whereas in 1890 the country's labor force sixty-five years of age and older represented 4.3 per cent of the total population, it had changed to about 4.8 per cent in 1950. During this period, the percentage of persons sixty-five and older was nearly doubled (3.9 to 7.7 per cent) with the general increase of population in this country. The trend of employment of elderly men has been steadily downward, while employment of women, of all age groups, has increased.

there was a definite sag in the employment prospects of elderly workers.

The near-poverty that many of our older persons face may be high-lighted by the following considerations: in 1950, at a time when the median annual income was almost $1,971, about 43 per cent of all families headed by a person sixty-five and older had an annual income of less than $1,500; 30 per cent had an income under $1,000; and 15 per cent had an income of less than $500. The economic fate of the aged person living alone or with non-relatives was even worse, with three out of four such persons having an annual cash income of less than $500.[10,11] Then there is the estimate that three out of four aged persons are without hospital insurance.[10] Considering the health inadequacies of aged persons to be about two and one-half times greater than those of younger people, there is the strongly suggested need for a health insurance program. In brief, although the aged are considered a minority group, their large numbers are constantly increasing. Although many of them are employable, they are more frequently than not categorically denied employment; and although their health needs are greater than those of the younger generation, they seldom have the resources for proper health care.

Housing.—All this has direct implications as to where and how the older person lives. Despite the general misconception that most aged persons live in institutions for the aged, seven out of every ten elderly persons (or 9,000,000 of the 11,000,000 aged persons) lived in their own households in 1951. Of the currently estimated 3,000 homes for the aged in the United States,[12] Zeman[13] points out that between 1850 and 1900 nearly 500 such institutions were established by private philanthropies. Under the pressure of the increasing population of the aged facing fewer opportunities for supporting their longer life spans, a number of these homes have developed fine physical plants and good administrative practices and techniques of every kind. These homes have done much to reduce the long-standing stigma of social inferiority of institutions for older persons and to create a kindly environment as well as better physical care. Yet, in spite of this, only about 700,000 persons sixty-five years and older (5 per cent) live in homes for the aged.[11] This might well indicate the older persons desire for self-determination, demonstrated by (ingrained) resistance to the loss of independent residence even in institutional settings where respectful and considerate treatment are taken for granted.

The elderly person's attitude toward his environment is therefore of paramount importance in the thoughtful planning of present and future institutions. Basically, the question of how and where an older person lives is related to the degree and manner of planning for the future. Is residence under varying restrictive and/or protective institutional conditions related to the individual's feeling about his own future? Is this feeling linked with thoughts of death? Is there any inter-relationship between his attitude towards death, his estimates of the state of his health, and his response to the life around him?

Special Research on Housing

Answers to some of the foregoing questions were sought in a study[14] (of which this paper is a part) which attempted to investigate attitudes of older persons towards aging. As an index to this, attitude toward death was chosen on the assumption that attitude toward death is a reflection of attitude toward living. It was hypothesized that elderly people living in a way comparable to their former independent status in the community would be less fearful of death and more easily adjusted to the life around them. Their attitudes towards death, therefore, were appraised in relation to their own opinions of their health, activity, and general adjustment.

Sixty persons, ambulatory white women, currently unmarried, thirty living in the Apartment Residence* of the Home for Aged and Infirm Hebrews were studied in comparison with thirty persons from the more traditionally supervised and regulated Central House** of the same institution. Basically, the difference between the two kinds of living arrangements is that those living in the Apartment Residence live very much like other elderly people in the community, while those in Central House live in a building set somewhat apart from the regular residential neighborhood. The explicit differences are that in the Apartment Residence there are minimal supervision, independent activity, and private and better-appointed rooms (often with arrangements for serving snacks). In contrast, Central House has ward accommodations, organized activity, and other supervisory details of institutional living.

Both groups of residents were volunteers and were selected from a stratified sample after consultation with the Medical and Social Service departments of the Home. Subjects participated in the study on the basis that the research might have an effect on housing plans for older people and were assured that they would remain anonymous.

*Situated at 302 West 87th Street, New York City.
**Situated at 121 West 105th Street, New York City.

The experimental design of the study consisted of comparing the two groups by means of a psychological test battery of instruments which, except for the Thematic Apperception Test, were especially devised, along with their respective rating scales, by this investigator. The instruments, in order of their standardized presentation, were as follows:

Questionnaire on self-appraisal of health
Questionnaire for adjustment in the Home
Sentence-completion test
Thematic Apperception Test
Questionnaire on claimed participation in activities
Summary scoring for attitudes toward death

Some brief statements about the various instruments in the battery are in order.

The health questionnaire was designed to elicit information on past and current medical history for the self-rating of health, on the basis of five categories ranging from "excellent" to "very poor."

The questionnaire on adjustment consisted of seventeen detailed questions relating to food, supervision, rules and general interpersonal relationships of the resident in the institution.

The questionnaire on claimed participation in activities consisted of a series of detailed questions of possible activities involving physical and social pursuits in which the aged respondent may claim to take part.

A sentence-completion test and ten TAT cards were also utilized.

Specific rating scales were devised for each of these instruments, each based on a 5-point range. Ratings were made by various categories of judges (a physician, 3 psychologists, at least 3 social workers), who rated protocols blind and made pertinent judgments of subjects, who were represented by code numbers to assure anonymity. These ratings were then averaged for the various groups of judges and comparisons were made. However, only the averaged ratings of the 3 psychologists-judges were employed in evaluating attitude toward death (or attitude towards living).

Findings of the Research

The study disclosed that:

1. The elderly persons living in the Apartment Residence under conditions not greatly unlike their previous independent way of living in the community enjoyed better mental health, being less seclusive and suspicious, and showed less preoccupation with death, than the residents of Central House.

2. Residents of Central House indicated a less realistic estimate of their own health than the residents of the apartments.

3. The findings as to adjustment and claimed participation in activities for the two groups yielded no clearly drawn conclusions.

4. Respondents from the more permissive Apartment setting showed greater alertness in social matters and greater productivity than the Central House people. They also seemed able to cooperate more fully in the research program.

5. The sentence-completion test and the Thematic Apperception Test appeared to be more productive than the various instruments of the psychological test batteries in making psychological judgments of death attitudes. In this connection, both groups of subjects reveal mild anxiety, at least in regard to thoughts of death.

Further research is certainly needed to make the findings of the current study explicit. Some suggestions would be: a repetition of the same study in the same institution, with male subjects; similar studies with both men and women from other institutions, both sectarian and non-sectarian, and with various racial groups; a study comparing the population of apartment residences with non-residental care programs; and a long-term study of an aged population before their admission to an institution, and at periodic intervals thereafter.

Implications for Institutional Planning

Implicit in the present study's findings is the need for a de-emphasis in provision of mass-dwelling arrangements for aged persons. Instead, existing institutional facilities should attempt to provide within their settings, features affording the older person as much individual privacy as is practicable, so as to make possible a form of guidance, without interference. There should be provision for more private and semi-private rooms, or for small unsegregated cottage and small apartment plans incorporating details of convenience in living arrangements (shopping areas, theatres, schools, centers, et cetera).

Institutional residences, in whatever form they exist, need not be considered as terminal residences, but as places which the aged person may elect to leave for as long as desired, without forfeiting privileges of resumed residency. Although such provisions would not be without their increased financial costs and administrative complexities, these would be over-balanced by the

advantages in providing an easier and more satisfying mode of living. Furthermore, these new developments would enable the older person to remain in the community, by providing every assistance in maintaining a separate residence and perhaps even employment.

Support is also given to the recent development of "foster care" residency for aged persons, parallel to the similar though less recent development in the area of child care, with its abandonment of mass-housing arrangements.

Implicit in these findings is the realization that programs for older people designed to promote a kind of living approximating previous independent residence in the community have many advantages. Some of the advantages involve helping the aged individual to preserve self-esteem, thereby providing society with benefits that the aged person may yet contribute, and at the same time sparing the great emotional, social and financial expense that are such frequent concomitants of institutionalization.

Implications for the Educational and Psychosocial Aspects of the Elderly Person's Adjustment

Psychosocial research with the aged has long shown that individual hesitancy and disinterest in learning are due more to the aged person's own self-imposed restrictions than to his actual intellectual deficits. When the aged person feels himself squinting a bit more or finds himself asking someone to repeat a comment, he makes the additional inference that his "mind is failing." Although our culture has not been particularly sympathetic to persons beyond thirty continuing with serious educational efforts, many aged persons have demonstrated an ability to learn anything from nonsense syllables to a foreign language on a par with younger persons, even though at a somewhat reduced tempo. This is not to mention the feats of invention, literature, and statesmanship performed by elderly people. Along with the general acceptance that there is relatively little, if any, diminution in intellectual ability in older persons, there is the consensus of scientific thinking that, generally, the aged person's attitude, reflective of the cultural stereotype, stands in the way of new attempts at education or at learning new skills.

Furthermore, since attitude is usually reflective of the aged person's self-image, efforts at enabling the older person to maintain or retain a more flexible or youthful self-regard and resultant attitude is more than suggestive of the need for adequate, satisfying, and at best, casually-supervised independent housing arrangements.

Conclusions

Any research into an aspect of old age is faced by certain methodologic difficulties, and gives rise to some basic questions. Which of the "traits" usually ascribed to old age are endogenic, that is, organically determined, and thus typical for all old people? If these "traits" are not organically determined, to what extent are they basically affected by environmental conditions?

Much of the literature on old age concerns itself with what appears to be common-sense observations. There seems to be a neglect of the more subtle personality characteristics which reflect less what old age is, than what it turns out to be under insufficiently discriminating conditions.

From a review of the literature with its apparent preoccupation with the negative "traits" of old age, one finds it difficult to account for such persons as Bertrand Russell, Eleanor Roosevelt, Albert Schweitzer, Konrad Adenauer, Helen Keller, Grandma Moses, Judge Learned Hand, Winston Churchill, and many less prominent but comparable zestful examples of successful aging. Recent gerontologic studies have only begun to reveal what new attainments might possibly be attributable to old age under more appropriate societal conditions.

Both from the literature and the research on aging there is revealed that an institutional group is more rigid, has less drive, less spontaneity, and is less emotionally involved in activities and situations than is a group of older persons living in the community more or less on their own. Aged persons living under conditions simulating previous mode of independent residence in the community enjoy better mental health than their aged counterparts who are obliged to live under institutional settings. There is in this the strong suggestion of the necessity for a re-evaluation of institutional care, and for maintenance of older people in their own homes or in foster homes, and for a general attempt to enrich the lives of aged persons in their community settings.

Unless we are prepared to give these advantages, along with thoughtful planning, to our senior citizens, we shall deserve one critic's observation to the effect that America's juvenility is its oldest tradition.

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2. Cowdry, E. V. (Ed.): Problems of Ageing. Ed. 2. Williams and Wilkins: Baltimore, 1942.

(Additional References on Page 770)

Senior Citizens Residence, Kalamazoo

Constance M. DeCair
Kalamazoo, Michigan

THE Senior Citizens Residence of Kalamazoo is providing gracious, apartment-type living for fifty older persons, and it will soon be able to increase its capacity to eighty-seven following the completion of an addition to the present unit.

What began in 1947 with a real concern by some of our citizens for better housing for the elderly has resulted in a concerted community effort to at least partially solve the local problem. At that time, the Mayor appointed a study committee which eventually resulted in the formation of the "Senior Citizens Fund," a charitable corporation to consider and endeavor to answer the problems of the aged. In 1949, the Senior Citizens Memorial Fund was established to receive contributions in honor of the living and in memory of friends and loved ones. Interest and response have continued to grow with monthly contributions now maintained at about $1500.00 a month.

In 1950, the Senior Citizens Fund merged its activities and program with Merrill-Home, Inc., which for many years had operated a home for elderly widows, and which had vacant property ideally located for an adjacent building. By 1953, we were ready to conduct a financial campaign for the long dreamed of new building. Generous gifts from individuals, corporations, bequests, and grants from the Kalamazoo Foundation, together with the memorial fund, finally totalled nearly $400,000 and construction of the new building proceeded. The first unit was opened in the summer of 1954, and was immediately filled with a carefully selected group of our older citizens for this new venture in group living. Applications far outnumbered the facilities and continue to do so.

In order to have sound operation of the venture, the Senior Citizens Fund is headed by five Trustees who have supervision and control over all property and assets. They are appointed for varying terms by the Circuit Court Judge, the Judge of the Probate Court, the past three presidents of the Community Chest, the Kalamazoo Foundation, and by the Board of Directors of the Fund. The Board is composed of thirty-five members who carry on the activities of the Corporation. Standing committees include the Executive, Building, Capital Fund Raising, Finance, Operating, Public Relations, Admissions, Medical, Recreation and Research. The Board has more of a function of making policies than the Trustees, and acts as the operational unit for the running of the residence. The staff is also supervised by the Operations Committee.

There are several unique features to the operation resulting from the belief of the Senior Citizens Board that the problems of the aged should not be restricted to the destitute or infirm alone. Frequently, the same problems can be found in the situation of any older person who finds himself in all too frequent isolation and loneliness. We have tried to provide companionship, independent living, stimulus, and fulfillment of interests, as well as relief from housekeeping cares. We try to concentrate on the active, able-bodied elderly person, with the hope that we may extend his period of activity and alertness and make the later years a happier period.

The location of the Residence is ideal, as it is situated close to the center of the city and within easy walking distance to the principal stores, the Mall, the library and museum, churches, theatres, the park and various recreational centers. The building is designed to insure a flexible pattern of living with an opportunity for self-expression and individuality. Each resident has a private room, equipped with a lavatory and toilet, a compact kitchen unit with refrigerator, stove, cupboard space, and exhaust fan, a

THE AUTHOR
Constance M. DeCair

Mrs. DeCair is Admissions Chairman, Board of Directors, Senior Citizens Fund.

telephone connected to the central switchboard, an air-conditioning unit, built-in television antenna, and a spacious closet. Individual lockers are provided in the trunk-room for additional storage. Automatic elevator service is provided.

(Above) Exterior view

(Below) Recreation room

Senior Citizens Residence, 1768 Greenlawn Avenue, Kalamazoo, Michigan

Residents are encouraged to incorporate some of their own personal effects to recreate a feeling of being really "at home." A great sense of security is created by the knowledge that a nurse makes the rounds once each hour during the night to insure everyone's well-being. Another safety precaution which enhances security is the use of hand-rails in the showers and bathubs and an emergency bell in the bathrooms in case anyone should need help.

One of the good end-products of this type of apartment living is the ease with which our residents can select either privacy or companionship as the mood indicates. Meals are served in an attractive cafeteria on the main floor and are planned especially to insure an adequate, balanced diet for older people. Our residents are encouraged to eat most of their meals in the dining room, although enough flexibility is allowed to permit a person to entertain, get breakfast, or a snack, in the individual's own room. There are few rules and even vacations are encouraged with a rebate given. Several of our younger people still drive their own cars. This seems to help a great deal toward combating any possible regimentation so often found in group living. It has been amazing to see how appetites and health have improved after a period in residence with companionship and stimulation at meal time. We, on the Admissions' Committee, have listened to too many heartbreaking stories of lonely old people who have reached the point where cooking for one was "too much trouble" and it was apparent that malnourishment was a foreseeable end-product of living alone.

Contributing to the living comforts of our people are the attractive lounge, equipped with TV, card tables, and the latest magazines; the recreation room in the basement, also with TV and facilities for crafts, group activities, and entertainment. Community groups frequently volunteer their services for concerts, moving pictures, and other entertainment. Also in the basement are free facilities for personal laundry, including an automatic washer, dryer, and steam

Present residents of Senior Citizens Residence

irons. In fair weather most of the residents avail themselves of the lawn chairs and many use the shuffleboard court next to the patio at the rear of the building. It seems as though the central location with its continual outside activity is a great source of pleasure to our residents who can feel that they are still in the busy stream of life.

Senior Citizens Residence does not provide life-time care as it is not a nursing or convalescent home, but we try to protect the health and welfare of our people by requiring a physical examination and chest x-ray prior to admission. We also maintain a small infirmary, staffed by practical nurses, for temporary care of minor illness and for the various health services so frequently needed by older people. We have found that the general health picture of our residents is extremely good and the infirmary is never filled to capacity and is more often vacant than not. The number of people who have left the home because of death or illness is comparatively small.

Our selection of new residents is carefuly worked out and involves several interviews, a physical examination, and the filling out of a comprehensive application form. Residents must be at least sixty years of age, although our median age at present is the early eighties. Three of our people are in the early nineties, two in the sixties, and fourteen in the seventies. We attempt to screen applicants so that we can maintain an age span covering many years, as we feel that the differential in age is a healthy device insuring a more vigorous home and providing a stimulation when younger, physically well people enter the group. Ideally, we would like to divide the age span so that 40 per cent would be in the seventies, 40 per cent in the eighties, and 20 per cent spread between the sixties and nineties.

We require that our residents be Kalamazoo people, as the Senior Citizens Residence is supported by the community. This is one way in which the city can, in a small measure, repay the life-time of giving which our people have contributed to the growth and welfare of our city. The cost of operating the residence is based on a monthly rate of $130.00 per person. This is all-inclusive—room with heat, meals, water, electricity, telephone, weekly housekeeping service and infirmary with nursing care for temporary illness. Some residents are financially able to meet the full charge, while others, who do not have as much, or are receiving state aid, are assisted through special gifts, bequests, and memorials to the Senior Citizens Fund, by individuals, organizations, and corporations. No down payment nor special commitment or obligation is required involving a resident's personal finances or estate. We attempt to select one-third of our residents who are financially independent, one-third with limited means, and one-third who must rely solely on State Aid. It is interesting that several former residents have remembered us generously in their wills.

Once a resident has joined our group we encourage

activities, new interests, part-time employment whenever feasible, and participation in the affairs of the community. One of our men continues his work as a silver engraver and clock repairman; one of our women expects to continue her job as a volunteer librarian; another sells Christmas cards and imported fabrics and has her room arranged as a living-room where she can continue her business. Another man, a former accountant, takes occasional bookkeeping or income tax jobs; several of our women have learned to operate the switchboard to assist in the office and earn a small salary. Another member, a registered nurse, has assisted the nursing staff on occasion. One of our women does personal laundry for the older, less active people, while still another carries on an active dressmaking and alteration program for the residents and board members. One of our men, possessing a "green thumb," formerly worked wonders with the flowers in the yard and was always available for minor repair jobs around the building.

We have been pleased that one of our women still teaches a large Sunday School Class for adults, while still another gives book reviews to clubs and organizations. Many of our women work on cancer dressings, work for political parties and cherish their right to vote, make Christmas decorations, sew and knit for charitable organizations, and engage in various crafts, both at the Residence and at our local "Drop-in Center." Religious affiliations are encouraged, although the Residence is non-sectarian and has had representatives of most of the faiths.

The future of the Senior Citizens project looks busy and encouraging as the old Merrill Home is to be torn down soon to make room for the beautiful new building with its expanded facilities and accommodations for forty-five more residents. We have had inquiries from several more couples who are anxious to live in the attractive larger apartments especially designed for two people, and are anticipating a revitalization of the whole structure with the welcome addition of these new people. Plans are under way for the engaging of an Executive Secretary, as we have grown into a big business which is demanding more than volunteers can give. We have been approached by another Home for the Aged to consider a possible merger of facilities, and are frequently asked by civic groups for help and advice on pertinent problems concerning the Senior Citizens of the community. We of the Board feel that our efforts have been most satisfying in helping to create a pioneer community plan which provides an abundant way of life for the elderly citizen.

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Two Universities Afford Older Adults Opportunities to Continue Learning

Hamilton Stillwell
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THIS IS a progress report on an experiment which is being undertaken by two universities to extend their rich educational resources to the older residents of the geographical area in which the two institutions are located. The test is only six months old and conclusive evidence is not available; however, what has been discovered in this short period is submitted for the information of those interested in the older adult and the manner in which he spends his new found leisure time.

The Division of Adult Education is a comparatively new educational unit which was established jointly by Wayne State University and The University of Michigan in 1957 to coordinate the non-credit educational activities of the two institutions in a six-county area in southeastern Michigan. The administrators of the Division discovered at the end of the academic year of 1958-59 that there were only three dozen adults sixty-five years of age or older among its 4,500 enrolled adults. With the knowledge that there were 250,000 older adults in the six-county area in which the Division operated, the administrators petitioned the two Universities for permission to lower tuition costs for older citizens for one year to see if this would increase their enrollment in the Division's courses.

The approved plan was that all adults sixty-five years of age or older would be allowed to enroll in any non-credit course offered by the Division through the payment of a $2.00 registration fee for each course taken. (The normal charge was $20.00 for a twelve week course.) The number of courses in which an individual might enroll was not limited but the number of such registrations in a course which had a limited enrollment could be restricted to five. Through this plan it was felt that the adult would have some financial stake in the course but the cost would not deprive him of the opportunity of enrollment.

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Results of the Publicity Given to the Experiment

The Division availed itself of every opportunity to publicize this new plan in late August and early September of 1959, and yet the effort should be described as the "soft-sell" approach rather than the "hard sell." Stories were carried in the daily and weekly newspapers and the Division's staff, when interviewed on radio programs, made mention of the new plan. A few, but certainly not all, social agencies which worked with older adults were apprised of the experiment. However, leaflets were not distributed or personal visits were not made to the usual haunts of the retired or aged.

The results of this quiet publicity campaign were soon evident. The Division received scores of telephone calls and dozens of oldsters stopped by the Division's office to discover further information about the policy. These numerous contacts indicated to the Division that the older members of our society are interested in continuing to learn. Of course, the types of courses offered by a university do not appeal to all adults. For example, many men were interested in courses in industrial arts and handicrafts, which courses are not offered by the Division. Many women also were more concerned with the avocational type of course—again not a university-level educational activity. Here the adults were referred to the public school adult education programs in the community.

An early dissatisfaction with the new policy was

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expressed by those who had retired but had not attained their sixty-fifth birthday. Another frequent comment was that as long as the majority of the courses were located on the college campus, they were inaccessible to the older citizen who found it difficult to travel from the suburbs or outer edges of the city. One senior citizen of eighty years remarked that he still drove his automobile but said, "I just don't want to get involved in getting on and off those expressways in Detroit." Another request was that more classes be scheduled during the daytime hours as this made travel easier for the older adult. Of course, the fact that most adult education classes are held in the evening poses a problem for those who are planning broad programs for the older citizens. Despite these criticisms, a sizable number of older persons indicated that they would register for one or more courses.

Enrollment Statistics

A decision made early by the staff of the Division was that it would not request any person who desired to register under the reduced fee policy to furnish proof of his or her age. This policy was adhered to and, although staff members had their doubts occasionally about the age of the registrants, the comparative youthfulness of some of the claiments for the reduced fee was attributed to the restorative powers of our modern drugs and dyes.

The enrollment of older adults in the Division's courses in the fall of 1959 increased 1300 per cent over the fall of 1958. Where there were just eleven individuals over the age of sixty, there were now 144 persons sixty-five years of age and older. Was the reduced fee the cause of this marked increase? Granted that added publicity was given to the fact that older citizens were welcome in the Division's courses, it still appears that the financial inducement was the major factor. The group definitely showed their interest in daytime classes when 33 per cent enrolled in afternoon classes which composed only eight per cent of the Division's total program. The older group also proved to be "bargain hunters" with 26 per cent enrolling in more than one course.

The previous educational level of the older students proved interesting and apparently far above the national average for this age group. Twenty-seven per cent of the older group were college graduates and 66 per cent had completed high school. An encouraging fact was that the group was rather evenly divided according to sex with 53 per cent being women and 47 per cent men.

The Division's registration form contains a space for occupation, although many did not complete this blank or merely replied "housewife" or "retired." Former occupations noted were: teachers, accountants, an engineer, a lawyer, a surgeon, a judge, and a newspaper publisher. Among the women thirteen, or 24 per cent, stated that they were widows.

Subject Interests

The Division did not establish special classes for the older group but encouraged them to enroll in the already constituted courses. Forty per cent of the group enrolled in such liberal arts courses as art, music and literature, thus enabling them to appreciate more fully the arts which they now had time to enjoy. Thirty senior citizens selected self-improvement subjects such as English composition, foreign languages, reading efficiency and creative writing. A goodly number also enrolled in self-understanding subjects such as psychology, philosophy and religion. Understandingly, the vocational subjects had little appeal, as the older adult no longer has this interest at his age. How teachable is this group is a question which cannot be answered at this time. There are many national tests to prove that adults continue to learn throughout life and the continued interest of the group indicates their obtaining satisfaction from the experience.

Observations of the Group

No study in depth of this group has been undertaken by the Division at this time. Certain generalizations can be made after the experience of six months. The older adult: (1) enjoys studying with all age groups and rather dislikes being placed just with "senior citizens," (2) prefers first floor locations and rooms with good lighting and comfortable furniture, (3) insists on professors being prompt and classes being held for the full class hour, (4) is not too confident about his ability to learn and needs encouragement by those who teach him, (5) welcomes counseling and advice during registration periods, (6) prefers daytime classes and classes located close to his residence, (7) has a social interest as well as an academic interest in his adult study, (8) is generally prompt himself and will be one of the first to register when the semester begins, (9) is most interested in the course which will aid him to utilize his leisure time in a constructive manner, (10) is slow to decide on his course and may wish to try more than one course before a decision is made.

Future Plans

At an afternoon tea which the Division sponsored for the over sixty-five-year age group in November of last fall, one of the participants stated that she hoped this plan would continue because it afforded older persons an opportunity "to re-exercise their areas of thought." Interviews and conversations with several of the participants indicated that the reduction in tuition costs was of great importance to the older adult, beset as he is with many other expenses. It was apparent that education was not one of the luxuries he could afford unless it came to him at a reasonable fee.

As this article is being written, registration for the spring semester in the Division has just closed. It was highly interesting to observe that 50 per cent of the older citizens re-registered for spring courses as compared to approximately 30 per cent of the younger adults. There are over 500,000 persons beyond the age of sixty-five years in Michigan and it is submitted that a large number of them believe that learning never ends. As long as they have that belief it behooves those of us in education to make our programs and facilities available at a time, place and fee most convenient to them. As the number of older adults in our population increases in the next decade from ten to fifteen per cent of our population, it is important that this large group have constructive uses for their vast amount of leisure time. Adjustment to retirement and leisure will occur much more easily if there are educational opportunities available.

Lung Cancer, Heart Disease Linked with Cigarette Smoking

Cigarette smoking, which has greatly increased in this country over the past few decades, is a "form of suicide, just as much so as shooting oneself," according to Dr. Alton Ochsner, professor of surgery, Tulane University School of Medicine (New Orleans), in an article in the March issue of the *Journal of the American Geriatrics Society*.

Dr. Ochsner cites excessive smoking as a major culprit in the development of carcinoma of the lung which, he states, "has become the most frequent of all cancers."

"In 1920, cancer of the lung represented 1.1 per cent of all cancers in the United States; in 1930, 2.2 per cent; in 1956, 10 per cent," he says.

Dr. Ochsner predicts that in 1976, unless something is done to prevent it, it will represent 30 per cent or more, that is, one out of every three cancers."

Dr. Ochsner also emphasizes the role of excessive smoking in the development of coronary disease. Noting that cancer of the lung is the only cancer which does not increase with advancing years, he gives as the reason the fact that heavy smokers have developed coronary thrombosis, and, as a result, "have not lived long enough to be afflicted with cancer of the lung."

Dr. Ochsner reports on a six-year study by the American Cancer Society involving 22,000 men between the ages of 50 and 70. The study showed that the over-all death rate among cigarette smokers was 105 per cent higher than among non-smokers. The death rate from heart disease was 115 per cent higher, and the death rate from cancer of the lung was 800 per cent higher!

The study revealed that "we have become a nation of heavy users of tobacco," Dr. Ochsner says. In the 65 and over age group, 20 per cent of the men had smoked a pack or more of cigarettes a day, whereas 21.6 per cent had never smoked. In the 50 to 54 year age group only 15 per cent had never smoked, whereas 43 per cent had smoked a pack or more a day.

Dr. Ochsner further notes that a recent poll among teenagers showed that among those aged 13 to 15 years inclusive, 37 per cent smoked, and among those aged 16 to 19 inclusive, 67 per cent smoked.

The Cancer Society study also showed a relationship between the amount smoked and the death rate. Whereas the death rate per 100,000 for the person who smoked half a pack a day was 51.4, it was 217 for over two packs.

Extensive studies in other countries also point to a causal relationship between smoking and lung cancer, Dr. Ochsner reveals. Moreover, such studies are documented by clinical evidence.

The Sixty-Five Club

David E. Snodgrass
San Francisco, California

TO MEMBERS of the medical profession, a law school may not seem to be quite the place for clinical research of any kind.

But at the University of California's Hastings College of Law in San Francisco we have been conducting clinical research of a sort for almost twenty years. And the results, from our point of view, have been extraordinarily good. Our objective was to determine whether law professors are too old and decrepit to teach effectively after reaching the age of sixty-five.

In embarking on our "research" project, we were acutely aware that most colleges and universities, like most business and industrial establishments, seem to operate on the principle that a person has outlived his usefulness when he reaches a predetermined age, usually sixty-five. Application of this principle means, of course, that careers are to be arbitrarily terminated at that age, without regard to physical, mental or professional fitness.

We at Hastings did not pretend to be scientific about the manner in which our "research" was conducted. We simply hired over-age professors, who had been uprooted by compulsory retirement rules at other law schools, and put them to work. After that, it was strictly a matter of observation and evaluation.

We did not require physical or psychiatric examinations. But we were carefully selective. After all, we were interested only in outstanding law teachers, men who had attained distinction in their profession and who were recognized nationally as authorities in their respective fields. Similarly, we were interested only in men still vigorous enough, mentally and physically, to carry normal teaching loads. But so far as that phase of our selective process is concerned, it was immaterial to us whether a prospect was sixty-five or seventy-five.

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As already indicated, our "research" has been eminently productive and eminently successful. We have demonstrated, at least to our satisfaction, the fallacy of compulsory retirement based on chronological age alone; so much so, that about ten years ago we adopted an ironclad rule against hiring anyone *under* the age of sixty-five for a full-time professorship.

We had to overcome a few obstacles, of course. What "clinical researcher" doesn't? During an early stage, we were heckled constantly by unenlightened critics who even challenged our basic premise. We repelled those attacks with substantially the same arguments which we use in spreading the gospel today. It seems to us that these arguments apply to government and business with just as much force as they do to the teaching profession.

First, we have an unshakeable conviction that chronological age is an unsound test for determining when a man should be retired, and that biological age should be the decisive factor. A man who is qualified, able, experienced and fit to continue with the same work in which he was engaged at sixty-four should not be deprived of the right to do so merely because he has had another birthday.

One man is too old to do effective work at fifty-five or sixty. Another is still approaching his peak of efficiency at sixty-five. History affords some dramatic illustrations.

Benjamin Franklin was seventy in 1776, when he sailed to France to interest that country in the American Revolution. In 1781, he helped to negotiate the only victorious peace in American history, at the age of seventy-five. Six years later, at eighty-one, he saved the Constitutional Convention. Yet in his day, the normal life expectancy of an American was only thirty-five years.

Winston Churchill attained his sixty-fifth birthday

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on November 30, 1939. What the consequences would have been if he had been required to leave the House of Commons on that date can only be left to speculation. Where might the Iron Curtain be now if he had been replaced by a younger man?

Economic problems are inherent in this matter of compulsory retirement, too. Every day, about 3,000 U. S. citizens turn sixty-five. It has been estimated that by 1975 there will be at least 20,000,000 persons in the United States who have attained that age.

The tax burdens of the country already are very heavy. Those which are attributed to Social Security, now 6 per cent, are likely to be doubled within a few years. Yet wage and salary earners are denied the privilege of enjoying the benefits of the program if they continue to work after sixty-five.

In my opinion, there is a great need for industry to develop flexible retirement programs. Industry does both itself and its workers a disservice by imposing retirement at a time when many employes are still capable of productive and satisfying service. Inflexible rules that deprive these workers of the right to be gainfully employed should be re-examined, in the interest of the common good.

Hastings, by reason of the fact that the College has no compulsory retirement age, has an ideal laboratory or proving ground for the theory that retirement should not depend on chronological age. The oldest and largest accredited law school on the Pacific Coast, it was founded in 1878 by Serranus Clinton Hastings, first Chief Justice of the California Supreme Court. Although repeatedly characterized by the Legislature as the Law Department of the University of California, it is governed by an independent board of directors, of which the Chief Justice of the California Supreme Court is ex officio president. Degrees are conferred by the University of California regents, on certification by the College directors. The foundation act says nothing about retirement.

Eventually, our galaxy of over-age professors was dubbed the "65 Club." The reaction was positive and the name stuck. It has become a familiar label among legal scholars throughout the world. In developing it, Hastings has attracted one of the finest law faculties ever assembled.

No so long ago, the great Roscoe Pound, Dean Emeritus of Harvard Law School and the grand old man of American legal education, was quoted by *Newsweek Magazine* as saying that on the whole he regards it as "the strongest law faculty in the country."

Another national magazine, *Coronet*, published a progress report on our "research" project some months ago, stating that we had:

". . . assembled a faculty of professors whose names are remembered with affection by generations of lawyers all over the country. They came from Yale, Harvard, Stanford and such great State Universities as Michigan and Illinois.

"And this eminent faculty began to attract students who might otherwise have gone to better-known law schools. . . . Hastings students are being taught by men whose collective experience, prestige and authority could hardly be matched at any other law school in the country. . . .

"The students have discovered that their professors are not only uniquely dedicated teachers, but that they are also more tolerant and understanding than most younger men would be. . . .

"The members of the '65 Club' are alert, brisk, vigorous and salty-tongued, and they are clearly getting a whale of a kick out of life. For they are doing what they like best."

Again, the *Harvard Law Record*, a weekly publication of Harvard Law School, in a tribute to members recruited from Harvard alumni described the "65 Club" as the country's "only Valhalla for elderly law professors" and noted that the membership has included some of "the leading luminaries in the gallery of legal stardom."

The most recent kudos came from a somewhat unexpected source, an inspection report on Hastings prepared by two representatives (both deans of approved law schools) of the American Bar Association.

This report, referring to the "65 Club," declared:

"The teaching ability of this group is beyond question. The productivity of these men is impressive, especially in view of their age. . . .

"There is no questioning the capacity and ability of this group. It includes some of the finest scholars and teachers in the United States. In view of the fact that they are all over sixty-five, we felt that age might have slowed them up.

"Consequently, we spent some time listening to those who had classes during our visit. The classroom performance in each instance was excellent. . . .

"Your evaluators are of the opinion that the faculty is alert, interested in and insisting upon high standards of legal education and doing an excellent job, not only in the classroom but in public service and research."

It seems appropriate to mention the fact that our Hastings oldsters have racked up an excellent attendance record, too. Year in and year out, they have missed fewer classes on account of illness than the average student. They are finished with diseases and their wives aren't having babies.

Perhaps a footnote should be added about how the "65 Club" happened and about its present membership.

Our "research" project did not begin as such. It stemmed from sheer necessity and was the product of emergency. Dean William M. Simmons, (fifty-five) died, with tragic suddenness, on August 25, 1940. A substitute had to be found for each of his three courses; and the academic year 1940-41 was less than five weeks off.

Younger men were unavailable, on such short notice. There was only one source of experienced teachers: the ranks of the compulsorily unemployed. Three months after giving his last lecture at the University of California School of Law (Berkeley), Emeritus Dean Orrin K. McMurray (seventy) returned to the classroom at Hastings, where he had taught as a novice, in 1902-04. Two years after being dropped from the Stanford Law Faculty (officially, "retired"), Professor Arthur M. Cathcart resumed his distinguished career in the fields of Torts and Constitutional Law.

Then came World War II, with young men even scarcer than before, and with it, replacing Dean McMurray, came Edward S. Thurston (sixty-seven), for whom there had been no room at Harvard Law School when he attained the age of statutory senility, in 1942. There matters rested until 1946, when the law school world was turned upside down.

On V-E Day, in 1945, the Hastings student body had numbered thirty-seven; in August, 1946, attendance soared to 483. More professors were needed and young men with teaching experience were all but impossible to find. The lesson of 1940 had not been forgotten. Hastings offered teaching positions to two more victims of compulsory retirement: Oliver L. McCaskill (sixty-eight), of the University of Illinois, and Chester G. Vernier (sixty-five), of Stanford University.

One year later, in the wake of 583 war veterans, came Professor Augustin Derby (sixty-five), of New York University, and within two academic years thereafter Ernest G. Lorenzen (seventy), of Yale University, Dudley O. McGovney (seventy-one), and Max Radin (sixty-eight), of the University of California School of Law (Berkeley), and Emeritus Deans Everett Fraser (seventy), of the University of Minnesota, and William G. Hale (sixty-eight), of the University of Southern California, and George G. Bogert (sixty-five), of the University of Chicago.

In 1948, Professor Lawrence Vold (sixty-two), of the University of Nebraska, who was not yet eligible for the "65 Club," became a member of the Faculty, as a "Pledge." He has had no successor.

We have added other distinguished names to the roster during the past twelve years. The great University of Michigan Law School has contributed four: Professors Lewis M. Simes, John B. Waite, Ralph W. Aigler and Edwin D. Dickinson.

The full-time faculty of 1959-60 consists of a registrar (forty-eight) and fifteen senior professors, whose ages range from sixty-five and one-half to eighty-four and average seventy-two and one-half. Professors in their late fifties and early sixties are turned away as "under age." A new form of discrimination!

During its first twenty years, the "65 Club" has had thirty members, exactly half of whom are active at the present time. They will be more numerous in the 1960's, when the College which they serve will be turning students away for lack of space.

It is self-evident that California's first Chief Justice did much more for Hastings in 1878 than to endow the College with $100,000. He left its board of directors free to employ teachers of law at any age, and to keep them as long as their services are needed.

So much for our "research" project. We hope that the findings will be accepted as an important contribution to the science of gerontology.

Golden Weddings Increase

According to the Health Information Foundation, about 150,000 couples each year celebrate a Golden Wedding Anniversary. Due to increases in life duration, a groom aged twenty-one and a bride aged seventeen now have forty-two chances in one hundred of living together for fifty years (barring divorce!).

Aging in a High Energy Society

Wilma Donahue, Ph.D.
Ann Arbor, Michigan

A POSITIVE and dynamic attitude toward aging is replacing the older concept of aging as a period of decline, poor health and unhappiness. The change in emphasis is brought about because the great majority of all who are alive today can expect to live through the highly productive years and to enjoy a period of retirement activity with a reasonable income. The added years of life are becoming healthier and more vigorous. Improved nutrition, easier homemaking and working conditions, a better health environment, new discoveries and procedures in medicine and rehabilitation are having a measurable impact.

Recently, the Surgeon General of the U. S. Public Health Service was able to report from the National Health Survey that 43 per cent of the people sixty-five years of age and over have no illness or impairment which interferes with the pursuit of their normal activities. Another 40 per cent report conditions which interfere only slightly or moderately. Only 17 per cent, one in six, are so severely disabled as to require assistance in living. These are encouraging figures. While they leave much to be desired, they suggest that the means to improve them lies within our group.

Of greatest importance is the improved income status of the aged because there is considerable evidence pointing to the association between economic status and health. Over the past decade, the proportion of older people with no income from employment or a public maintenance program decreased from three in ten to less than one in ten. While the proportion is heavily weighted with those which include an employed member, one-half of the families in which the head is sixty-five years of age or over and nearly one-half of the unattached older persons have incomes sufficient to meet basic needs, except for the costs of catastrophic illness.

More than a million retirees are drawing pensions from private industry, nearly two-thirds of the older male family heads own their own homes, and personal savings and privately held insurance and annuities are increasing. While we clearly have a long way to go in achieving economic security in the later years, we can see a brighter road ahead of us.

Beyond the extension of life itself, the outstanding achievement, as I see it, lies in the increasing opportunity to live independently in the later years and to devote more time to the pursuit of activities of one's own choosing.

Shortening the hours of work and increased life expectancy alone have given us 45,000 hours or twenty-two years of additional free time over the past century. Completion of parental responsibility between ages forty-five and fifty-five years and retirement from work between ages sixty and seventy add a great many more. It is significant that independence and free time come when maturity, growing out of accumulated experience and wisdom, and the potentials for full self-development and for broader social usefulness are greater than in any other period of life.

Making the most of maturity is a matter of individual choice and development: hence, it will always be basically the responsibility of the individual himself. Yet older people, like all people, need to find a climate of opportunity within which they can satisfy their requirements and aspirations. Modern technology has provided the productivity and manpower to produce the income, goods and services, and free time essential to meaningful maturity. The continuous expansion and growth of productivity through the high energy technology of the present has created a situation of abundance. We have had a more than six-fold increase in total gross national product and

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an almost three-fold increase in per capita gross national product in the period 1900 to 1957. Projections to 1970 indicate marked further rises based on increased productivity.

Whether our national output of goods and services increases at 3 per cent, 4 per cent, or 5 per cent in the future, the rate is considerably faster than the rate of increase in the population itself. This means continually rising income will be available for individual purchases of goods and services, for storing up retirement income credits, and for community expenditures for health, welfare, educational, and recreational programs.

Another factor, even more frequently overlooked in estimating the ability of society to support a large number of older persons is the effect of rising life expectancy on the length of work life, hence on the availability of manpower. The work life of the average male has been extended by ten years since the turn of the century. This 30 per cent increase in the length of working life has been achieved despite the postponement of entry into the work force and lengthening of the period of retirement. It also offsets the reduction in the length of the work week. We are, in fact, contributing approximately the same number of hours to the work force over our working lifetimes as our parents did when they worked a six-day, sixty-hour week. There is every prospect that this trend will continue. Life expectancy at birth, at ages twenty, thirty, and so on will continue to rise, with more and more of us living through the period of greatest economic productivity in the life cycle.

Still another consideration is the decline in the proportion of children and young people, plus the extension of life through the middle years, which have more than offset the increase in the elderly. Today, there are about eighty-five persons under twenty years of age and over sixty-five years of age in our population for each 100 between the ages of twenty and sixty-five years. This represents a decline from 94 per 100 in 1900. Forecasts for the remainder of the century indicate the ratio of the so-called dependency groups to those in the middle years will remain constant if it does not actually fall. Certainly, there is no indication that the rising number of old people is going to swamp the economy.

One final point is related to the effects of automation on our national economy and hence, on our ability to support the old. Opposing arguments are put forth with considerable vehemence. On the one hand, automation is said to decrease work opportunities. On the other hand, it is claimed that automation increases the number of jobs. Actually, over the past half century it has done both. It has enormously increased output and, hence, our purchasing power so that we are all able to enjoy a rising amount of goods and services (which creates more jobs) and, at the same time, it has greatly reduced the length of the work week and has given us retirement as a part of our way of life.

For all of these reasons, it appears that we are justified in assuming a continuing rise in the incomes of older people and the availability in our economy of the wherewithal to develop the programs and services which will give our older people a favorable climate of living. There can therefore be expected a continuing improvement in attitudes toward retirement and leisure because the older people will be reassured of their welcome place in society. When this is true, concern about working until infirm will be dissipated. In the past, a job has been a means and not an end. The current generation of Americans is developing new attitudes toward leisure as a desirable value and a crucial change which will determine the extent to which a new orientation to life in retirement will be developed—a necessity to the positive and healthful approach to aging.

Problems of All

Frederick C. Swartz, M.D., Lansing, chairman of AMA's Committee on Aging, stresses that in considering problems of the aged, it should be remembered the problems are those of individuals.

"We are at the point," he said, "where there are no problems, except those fostered by retirement, that are not the problems of both the over 65 age group and other age groups. And there is no uniform list of needs or wants of any age group."

Medical Manpower in Michigan

Supply of Physicians and Type of Practice

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STUDIES of medical manpower in Michigan were undertaken for the Committee on Medical Education Needs in Michigan as part of its charge "to develop specific recommendations on the next steps to be taken to meet the expected needs of medical education in the State of Michigan."[3] This report deals with the supply of physicians in Michigan and the nature of their practice. A previous report analyzed the distribution of physicians in Michigan with reference to rural-urban differences.[2]

Supply of Physicians

Physician-Population Ratio.—The most commonly used measure of the supply of physicians, the physician-population ratio, is the number of physicians relative to the population they serve. This ratio, obtained for a given area, is usually compared with a "standard" such as the physician-population ratio of another state, a group of states, or the United States as a whole.

The *American Medical Directory* is the best source for the number of physicians in each state. In the preparation of this report, the 1950, 1956 and 1958 editions were used. The listings of physicians are for the middle of the year preceding the year of publication.

From 1920 to 1957, the number of physicians in Michigan increased from 4,593 to 8,118 as shown in Table I. During the same period the state's population increased at a greater rate and the physician-population ratio decreased from 125 per 100,000 in 1920 to 104 in 1957.

Figure 1 shows that since 1920 Michigan has had fewer physicians relative to population than the East North Central states (Ohio, Indiana, Michigan, Illinois and Wisconsin) and the United States as a whole. From 1920 to 1939, the East North Central states, as well as Michigan, maintained their positions relative to the United States as a whole. Since 1939, the physician-population ratio of the United States has remained about the same, with 134 physicians per 100,000 population in 1939, and 133 physicians per 100,000 in 1957. Both the East North Central states and Michigan, however, show a rather sharp decline since 1939. Michigan's population is increasing more rapidly than that of the United States and the East North Central states, and the increase in the number of physicians in Michigan has not kept pace, as shown in Figure 2.

TABLE I. NUMBER OF PHYSICIANS, POPULATION AND PHYSICIAN-POPULATION RATIO, MICHIGAN, SELECTED YEARS, 1920-1957

Year	Number of Physicians	Population In Thousands	Physicians Per 100,000 Population
1920	4,593	3,668	125
1930	5,589	4,842	115
1939	6,362	5,156	123
1949	6,937	6,332	110
1955	7,900	7,358	107
1957	8,118	7,803	104

Source: American Medical Directory, 1958; Statistical Abstracts, 1958.

When the states are ranked according to the number of physicians per 100,000 population in 1957, about half the states have a higher ratio than Michigan, as shown in Table II. Michigan's relatively low rank is somewhat unexpected since wealthy industrialized states like Michigan are among the states better supplied with physicians.

There are limitations to the physician-population ratio as a measure of the supply of physicians. Both the age distribution of the physicians in a state and the proportion of the physicians who are available for care of the sick influence the effectiveness of the total supply of physicians. In those states with a high concentration of osteopaths, the services they provide should be considered in evaluating the total supply of medical manpower. With regard to the population served, its age and sex composition obviously influences the need for physicians' care. Older people and women in the child-bearing ages need more medical care than other age-sex groups. If a state differs

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markedly in the age-sex composition of its population from that of the United States as a whole, this difference should be taken into account. However, states with fewer older people generally have a higher proportion of women in the child-bearing ages. These two population characteristics tend to neutralize each other in influencing the need for medical care. For this reason, the age-sex composition of the population is usually ignored in computing physician-population ratios. For more precise comparisons between states, it is necessary to make adjustments for differences in the age-sex composition of their populations.

In order to determine the effect of the above-mentioned factors on Michigan's rank among the states in the ratio of physicians to population, adjustments were made for the age distribution of physicians and for the age-sex characteristics of the population for each of the states for 1950. The United States as a whole was used as a standard. Both Michigan's physicians and her population are relatively young, the former indicating greater effectiveness per physician; the latter, less need. These adjusted physician-population ratios improve Michigan's rank among the states somewhat. Further adjustments in the physician-population ratios of the states were made by taking into account the proportion of physicians available for care of the sick (physicians in "active private practice," interns and residents and physicians in "other full-time hospital services") and the number of osteopaths in the state. The net effect of all these adjustments is to improve Michigan's rank, placing the state somewhere between fifteenth and twentieth among the states according to physician-population ratios for 1957.*

Michigan is in the middle third of the states according to this adjusted physician-population ratio. Compared with the fifteen or twenty states with higher adjusted physician-population ratios, Michigan's need for

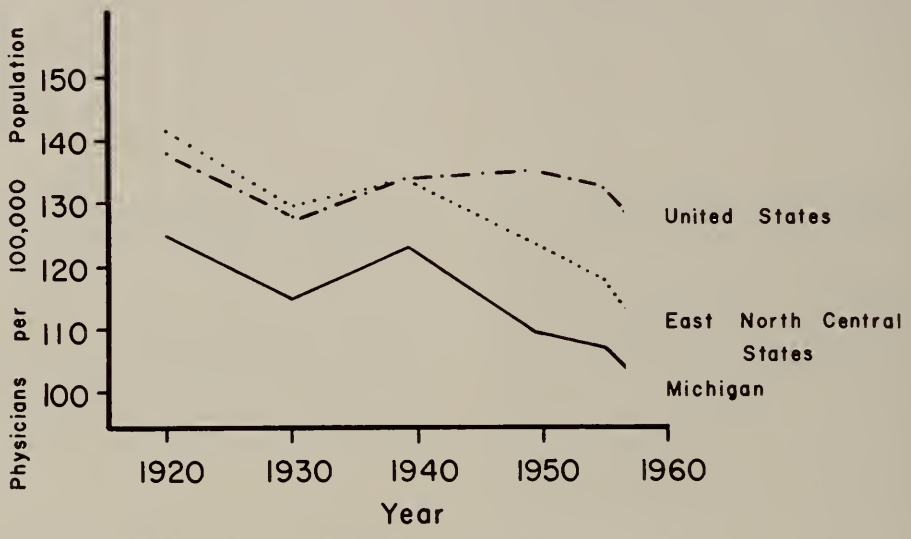

Fig. 1. Number of physicians per 100,000 population, United States, East North Central States, and Michigan during selected years, 1920-1957. Source: American Medical Directory, 1958; Statistical Abstracts, 1958.

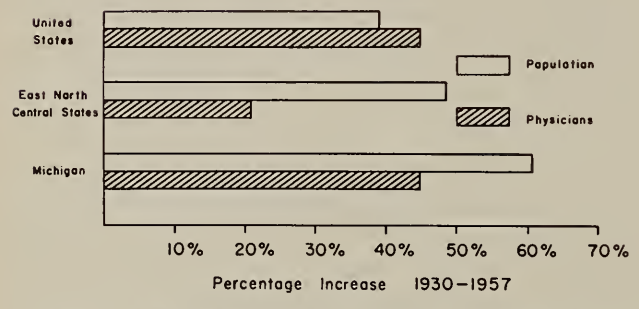

Fig. 2. Percentage increase in number of physicians and population, United States, East North Central States, and Michigan during selected years 1930-1957. Source: American Medical Directory, 1958; Statistical Abstracts, 1958.

*Adjustments for age differences among physicians and the age-sex composition of the population were based on 1950 data. Adjustments for proportion of physicians available for care of the sick and for the number of osteopaths were based on 1955 data. Since all the above data are not available for 1957 and since all four factors were not adjusted for simultaneously, only an approximate adjusted rank can be assigned for 1957.

TABLE II. RANK OF STATES BY NUMBER OF PHYSICIANS PER 100,000 POPULATION, 1957

Rank	State	Number of Physicians	Population In Thousands	Physicians Per 100,000 Population
1	New York	30,786	15,888	194
2	Massachusetts	8,701	4,866	179
3	Connecticut	3,906	2,252	173
4	California	21,803	13,922	157
5	Vermont	550	376	146
6	Colorado	2,390	1,673	141
7	New Hampshire	771	572	135
8	Maryland	3,824	2,895	132
9	Pennsylvania	14,507	11,043	131
10	Minnesota	4,281	3,321	129
11	Illinois	12,211	9,637	127
12	New Jersey	6,825	5,627	121
13	Oregon	2,142	1,769	121
14	Utah	1,026	851	121
15	Rhode Island	1,035	862	120
16	Washington	3,269	2,722	120
17	Florida	4,912	4,098	120
18	Ohio	10,986	9,200	119
19	Delaware	514	438	117
20	Missouri	4,752	4,255	112
21	Louisiana	3,387	3,068	110
22	Nebraska	1,515	1,452	104
23	MICHIGAN	8,118	7,803	104
24	Maine	978	943	104
25	Kansas	2,199	2,136	103
26	Wisconsin	3,920	3,862	102
27	Tennessee	3,466	3,463	100
28	Iowa	2,715	2,799	99
29	Virginia	3,677	3,797	97
30	Indiana	4,364	4,533	96
31	Texas	8,770	9,138	96
32	Nevada	255	267	95
33	Arizona	1,075	1,136	95
34	Montana	629	666	94
35	Oklahoma	2,143	2,277	94
36	North Carolina	3,991	4,498	89
37	Idaho	364	640	88
38	Georgia	3,320	3,779	88
39	Arkansas	1,550	1,768	88
40	Kentucky	2,581	3,040	85
41	West Virginia	1,671	1,976	85
42	Wyoming	256	316	81
43	New Mexico	647	830	78
44	North Dakota	483	644	75
45	Alabama	2,344	3,151	74
46	South Carolina	1,735	2,370	73
47	Mississippi	1,576	2,185	72
48	South Dakota	490	702	70
	United States	226,625	170,337	133*

Source: American Medical Directory, 1958; Statistical Abstracts, 1958.

*Excluding those physicians on active duty with the reserve corps of the Army, Navy and Air Force (such physicians are excluded from the state totals presented in this table) decreases the ratio for the United States from 133 to 129.

additional physicians is clear. If Michigan's physician-population ratio continues to decrease as it has over the past twenty years, this need will become even greater.

Need and Effective Economic Demand.—The physician-population ratio is a measure of the supply of physicians relative to need. A distinction is commonly made between the *need* for physicians resulting from the amount of illness in the population, and the effective economic *demand* for physicians' services resulting from the willingness and ability of the population to purchase physicians' services. The effective economic demand for physicians' services can be measured by the amount of money spent for physicians' services. The greater the expenditure for physicians' services, the greater the demand. The number of physicians represents the available potential for meeting this demand. In a given area, the amount of money spent for physicians' services divided by the number of physicians gives the average gross income of the physicians. This figure, which represents the relationship between the demand for physicians' services and the supply of physicians, measures the degree to which the effective economic demand for physicians' services is being met. States whose physicians have lower incomes on the average are the states best supplied with physicians relative to the effective economic demand for their services. On the other hand, states whose physicians have higher incomes on the average are the ones most poorly supplied with physicians relative to demand. To illustrate this point, Alabama, a state whose physicians have relatively high average incomes, is poorly supplied with physicians relative to demand. New York, where physicians' incomes are relatively low, is well supplied with physicians relative to demand. Michigan's physicians have incomes which are among the highest in the nation. Michigan is therefore a state which is poorly supplied with physicians relative to demand. According to the best available information on physicians' incomes, over two-thirds of the states are better supplied with physicians than Michigan when the supply of physicians is compared with effective economic demand.[4]

Gains and Losses in the Number of Physicians, 1949-1955.—From 1949 to 1955, the number of physicians in Michigan increased by 963, from 6,937 to 7,900, an increase of 14 per cent.** By comparing the listing of Michigan physicians in the 1950 and 1956 editions of the *American Medical Directory* it is possible to learn something about the characteristics of those physicians who entered practice in Michigan and those physicians who left. While there was a net gain of 963 in the total number of physicians over this six-year period, the net gain is reduced to 805 when only practicing physicians are considered.† Table III shows the nature of the gains and losses in the number of practicing physicians in Michigan in the six-year period 1949 to 1955. In this same period, 1,073 physicians graduated from the two Michigan medical schools. Of

**In this same six-year period the number of osteopaths increased from 909 to 1,261, an increase of 39 per cent. According to the 1959 American Osteopathic Association Yearbook and Directory of Osteopathic Physicians, there were 1,484 osteopaths in Michigan in 1958.

†"Practicing physicians" are those physicians in active private practice plus physicians with a hospital address (interns and residents and those in full-time hospital services).

TABLE III. GAINS AND LOSSES IN NUMBER OF PRACTICING PHYSICIANS IN MICHIGAN, 1949-1955

Replacements by graduates of Michigan medical schools	
Graduates of Michigan medical schools, 1949-1954	659
Losses through retirement and death	765
Net loss	−106
Migration by physicians in practice in 1949	
Into Michigan	587
Out of Michigan	816
Net loss	−229
Replacements by graduates of non-Michigan medical schools, 1949-1954	1,140
Total gains	1,140
Total losses	335
Net gain	805

Source: Special tabulation, American Medical Directories, 1950 and 1956.

these, 659 of them were practicing in Michigan in 1955. This number was exceeded by the number of physicians who retired or died, resulting in a net loss of 106 (Table III). It is probable that some of the 1949-1954 graduates in training outside of Michigan will subsequently return to Michigan. Nevertheless, the state's two medical schools are not providing a sufficient supply of physicians to take care of the losses through retirement and death and the increased need due to the state's expanding population.

Considering physicians who already were in practice in 1949, we find an excess of out-migrants with a net loss of 229. Further analysis of the physicians who migrated indicates that about half the out-migrants left the state at the completion of their internships and residency training programs. In view of this, Michigan should be regarded as an important training center for physicians from other states rather than an unattractive place to practice. From 1949 to 1955, 1,140 graduates of non-Michigan medical schools entered the state, many of them for internships and residencies. This group far exceeded the losses during the six-year period and produced a net gain of 805 practicing physicians. It is clear that much of the movement of physicians into and out of Michigan is accounted for by interns and residents. As the hospital becomes more central in the practice of medicine, this group of physicians represents an increasingly important segment of the medical manpower resources of the state.

Type of Practice

In Michigan, the proportion of physicians who are in active private practice has decreased from 85 per cent in 1930 to 66 per cent in 1957, as shown in Table IV.†† This decline should not be interpreted to mean that a smaller proportion of Michigan's physicians are available to care for the sick. The decline in the proportion of active private practice physicians has been balanced by an increase in the number of physicians whose practice is confined to the hospital, that is, interns, residents, physicians in full-time hospital service. This group increased from 12 per cent of all of Michigan's physicians in 1937 to 26 per cent in 1957. As a result, about the same proportion of Michigan's physicians are available to care for the sick, but now more of these physicians' services are being provided in the hospital.

TABLE IV. NUMBER OF PHYSICIANS IN MICHIGAN, BY ACTIVE PRIVATE PRACTICE STATUS, SELECTED YEARS, 1930-1957

Year	In Active Private Practice		Not In Active Private Practice						Total Physicians	
			Interns, Residents, Full-Time Hospital Staff		Administration, Teaching, Research, Retired, "Not In Practice"		Total			
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1930	4,725	84.5	*	*	*	*	860	15.5	5,585	100.0
1937	4,958	80.7	722	11.8	462	7.5	1,184	19.3	6,142	100.0
1949	5,343	77.0	1,172	16.9	422	6.1	1,594	23.0	6,937	100.0
1955	5,168	65.4	2,063	26.1	669	8.5	2,732	34.6	7,900	100.0
1957	5,384	65.8	2,119	25.9	675	8.2	2,794	34.2	8,178	100.0

*Information not available.

Source: American Medical Directories, 1950, 1956, 1958; Number of Physicians in the United States by County, July 1, 1938, Directory Department, American Medical Association; Report of the Committee on Survey of Medical Service and Health Agencies, Michigan State Medical Society, 1933.

The increase in the number of physicians in hospitals has been due to the greater use of hospitals in the care of the sick and in the training of specialists. As shown in Table V, there has been a marked increase in the number of internships and residency training programs in recent years. While the number of physicians in full-time hospital service, other than interns and residents, almost doubled between 1937

††The term "active private practice" as used by the *American Medical Directory*, means physicians other than interns and residents, physicians in full-time hospital service, physicians in teaching, research, and administration, retired physicians and "others not in practice."

and 1957, the number of interns and residents increased almost four-fold. Michigan has a very extensive internship and residency training program. Only one state, Louisiana, had a higher proportion of physicians who were interns and residents in 1957.[1]

Studies of the type of practice of physicians are generally based on information contained in the *American Medical Directory*. The information given under the listing of each physician is not always complete enough for a precise classification of his type of practice. In this report, a classification system is used

TABLE V. NUMBER OF PHYSICIANS IN MICHIGAN IN FULL-TIME HOSPITAL SERVICE, BY TRAINING STATUS, 1937, 1955 AND 1957

Year	Interns and Residents	Full-Time Hospital Staff	Total
1937	414	308	722
1955	1,451	612	2,063
1957	1,548	571	2,119

Source: 1937: Number of Physicians in the United States by County, July 1, 1938, Directory Department of the American Medical Association.
1955: American Medical Directory, 1956.
1957: American Medical Directory, 1958.

TABLE VI. PHYSICIANS IN MICHIGAN, BY AVAILABILITY FOR PROVIDING CARE, 1949 AND 1955

Type of Practice	1949		1955	
	Number	Per Cent	Number	Per Cent
Available for care of general population	6,355	91.6	7,171	90.8
Active private practice, office not in a hospital	4,973	71.7	5,226	66.2
Hospital address	1,382	19.9	1,945	24.6
Active private practice and salaried physicians	385	5.5	539	6.9
Interns	220	3.2	390	4.9
Residents	777	11.2	1,016	12.9
Available for care of special beneficiaries only	55	0.8	62	0.8
Federal government hospitals	52	0.7	55	0.7
College health service	3	—	7	0.1
Not providing care	530	7.6	664	8.4
Teaching and research	117	1.7	176	2.1
Administration	164	2.4	181	2.3
Retired	160	2.3	204	2.6
All others not in practice	89	1.3	103	1.3
Grand total	6,940	100.0	7,897	100.0

Source: Special tabulations from American Medical Directories, 1950 and 1956.

which recognizes the limitations of the Directory data. This classification system separates physicians providing care for the general population into two groups, those with an office address outside the hospital and those with a hospital address (Table VI). The use of an objective criterion, office address, reduces inconsistencies in classifying physicians over several time periods. All physicians in Michigan listed in the 1949 and the 1955 editions of the *American Medical Directory* were classified by the scheme (Table VI).

The only major shift which has taken place in the work setting of Michigan's physicians from 1949 to 1955 has been within the group of physicians providing care for the general population. Physicians in active private practice with offices outside the hospital decreased from 72 per cent of all physicians in 1949 to 66 per cent in 1955. During this same period, physicians with a hospital address increased from 20 per cent of all physicians in 1949 to 25 per cent in 1955. This increase was shared by all types of physicians with hospital addresses. Despite the tremendous expansion of medical research activities and the growing need for physicians in teaching and administrative positions, there has been virtually no increase in the proportion of physicians devoting themselves to these careers.

It has been suggested that an increasing proportion of physicians providing day-to-day care for the general population receives its income as salary. Except for interns and residents, there is insufficient information in the *American Medical Directory* to confirm this. However, it is known that some physicians listed as being in active private practice are employed by other physicians on a salaried basis, and not all physicians with a hospital address are salaried.

Specialization.—Specialization is viewed by some as creating problems by increasing the costs of medical care, exaggerating the rural-urban maldistribution of physicians and introducing difficulties in patient-physician and physician-physician relations. Others regard specialization as a necessary condition for advancing the science of medicine and improving the quality of medical care. Regardless of the value judgments which may be made concerning the impact of specialization on medical practice, there is an unmistakable trend toward greater specialization in medicine.

Michigan's physicians show this trend. The proportion of physicians in active private practice in Michigan who designate themselves full-time specialists increased from 16 per cent in 1930 to 48 per cent in 1957 (Table VII). During this same period, the proportion of general practitioners decreased from 64 per cent to 35 per cent, while the proportion of "partial specialists" changed very little.

TABLE VII. NUMBER OF PHYSICIANS IN MICHIGAN IN ACTIVE PRIVATE PRACTICE, BY SPECIALIZATION STATUS, SELECTED YEARS, 1930-1957

Year	Specialization Status						Total Active Private Practice	
	Full-Time Specialists		General Practice		Part-Time Specialists			
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1930	770	16.3	3,040	64.4	907	19.3	4,717	100.0
1949	2,106	39.4	2,380	44.5	856	16.0	5,343	100.0
1955	2,296	44.4	2,082	40.3	790	15.3	5,168	100.0
1957	2,599	48.3	1,906	35.4	879	16.3	5,384	100.0

Source: 1930: Report of the Committee on Survey of Medical Services and Health Agencies, Michigan State Medical Society, 1933.
1949: American Medical Directory, 1950.
1955: American Medical Directory, 1956.
1957: American Medical Directory, 1958.

TABLE VIII. DIPLOMATES OF AMERICAN SPECIALTY BOARDS IN MICHIGAN, 1957

American Specialty Board	Number	Per Cent
Internal medicine	289	14.4
Surgery	282	14.1
Pediatrics	209	10.4
Obstetrics and gynecology	187	9.3
Radiology	174	8.7
Psychiatry and neurology	171	8.5
Ophthalmology	138	6.9
Otolaryngology	123	6.1
Pathology	85	4.2
Orthopaedic surgery	76	3.8
Urology	60	3.0
Dermatology	51	2.5
Anesthesiology	40	2.0
Preventive medicine	37	1.8
Neurological surgery	23	1.1
Thoracic surgery	23	1.1
Plastic surgery	13	.6
Proctology	12	.6
Physical medicine and rehabilitation	8	.4
Total	2,001	99.5

Source: American Medical Directory, 1958.

Physicians designating themselves "partial specialists" are often classified with general practitioners. Some have questioned whether the partial specialist should not more appropriately be regarded as a physician moving toward full-time specialty practice. When general practitioners in Michigan in 1949 were compared with the partial specialists, it was found that the general practitioners were more likely to have become full-time specialists by 1955. Apparently the partial specialist does not progress to full-time specialty status more frequently than does the general practitioner.

The use of American Specialty Boards as certifying bodies has served to formalize the designation of specialists and has substituted objective criteria for self-designation in determining specialty status. The proportion of full-time specialists in Michigan who are certified by American Specialty Boards has increased from 45 per cent in 1949 to 60 per cent in 1957. If this trend continues, certification by an American Specialty Board will soon define the full-time specialist.

Table VIII shows that of the 2001 Board-certified specialists in Michigan in 1957, almost half are in four fields of specialization: Internal Medicine, Surgery, Pediatrics, Obstetrics and Gynecology. The smallest number is found in Physical Medicine and Rehabilitation with only eight physicians with their Boards. Each of the nineteen American Specialty Boards is represented.

The proportion of full-time specialists with Board certification varies among the several specialties. In 1957, almost all radiologists in Michigan, 98 per cent, were certified by their American Board. Eighty-eight per cent of all Michigan's neurosurgeons and 86 per cent of the thoracic surgeons were certified. By way of contrast, only 46 per cent of the full-time specialist internists were certified by the American Board of Internal Medicine, and only 54 per cent of the full-time specialist surgeons and the obstetricians-gynecologists were certified by their Boards. It may be that the fields of specialization which involve the most highly technical skills, for example, radiology and neurologic surgery, are more likely to require a formal system of designating professional competence.

Summary

This report of the supply of physicians in Michigan and the nature of their practice may be summarized as follows:

1. From 1920 to 1957, the number of physicians

(Continued on Page 792)

Hematuria: Comparison of Chemical with Microscopic Examination

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RAPID TABLET test methods have been introduced recently for the detection of occult blood in urine and other body fluids. These tests are simple and designed for use in the small clinical laboratory as well as the larger hospital department. The tablet tests are especially useful for detection of hematuria in patients receiving anticoagulant therapy.[1]

Caplan and Descombe[2] found that the 0-tolidine test, such as the Occultest* will detect 5 x 10^4 cells per milliliter, equivalent to 0.15 mg. of hemoglobin per 100 milliliters of urine. Routine microscopic examination of a centrifuged deposit will detect between 10^3 and 10^4 cells per milliliter, according to the details of the technique. Other workers, using urine specimens to which blood was added in the laboratory, have also attested to the value of the chemical test.[3,4,5]

This report describes the results of studies in the Department of Pathology at Hurley Hospital in which the accuracy of the rapid tablet test (Occultest) was compared to microscopic study of routine urine specimens for the presence of erythrocytes. In addition, particular attention was paid to the possible effect of the presence of large numbers of leukocytes on the tablet test results.

Method

Two thousand seven hundred random urine specimens up to twelve hours old from newly admitted and in-patients were checked independently of the microscopic examinations for the presence of varying amounts of blood by a rapid tablet test according to accompanying instructions.

Rapid Tablet Test

The Occultest tablet reagent method is based on the property of the peroxidase-like activity of the blood cells to reduce peroxide and liberate oxygen. The oxygen is detected in an acid medium by orthotolidine. Orthotolidine and strontium peroxide are compressed with tartaric acid and calcium acetate into a tablet. Oxygen liberated from strontium peroxide when reduced by peroxidase is detected by the orthotolidine; the tartaric acid and calcium acetate supply the necessary acidity.

Tablet Technique

One drop of urine was placed on a piece of filter paper. A test tablet was placed in the center of the moist area and two drops of water were placed on the tablet so that they would run down onto the paper. If a significant amount of blood was present, a distinct blue area formed within two minutes on the paper surrounding the tablet; if negative, the paper did not change color even though the tablet turned slightly bluish. Only the discoloration of the filter paper was considered of significance.

Microscopic Examination of Urine Sediment

Approximately 5.0 milliliters of well-mixed urine was transferred from the specimen to a 7.0 milliliter test tube and centrifuged at 300 RPM for five minutes. The supernatant was equally divided and poured into two test tubes for the Exton's sulfosalicylic acid reaction. This left approximately 0.5 to 1.0 milliliters of urinary sediment and supernatant fluid in the bottom of the tube. The sediment was examined immediately by inverting and tapping the test tube over a clean glass microscopic slide and covered by a 22 x 22 mm. plastic coverslip. The urinary sediment was scanned by the low power objective of the microscope with a magnification of 100 x. In this manner it was determined if the elements of the sediment were evenly dispersed beneath the coverslip. Erythrocytes and leukocytes were then counted in 10 fields under

TABLE I.

Microscopic Examination	Occultest			
	Negative	Small	Moderate	Large
Negative	1752	57	12	2
Rare	443	55	18	1
0- 5 Erythrocytes/HPF	80	71	26	0
5-10 Erythrocytes/HPF	9	16	23	9
10-25 Erythrocytes/HPF	3	19	16	6
25-50 Erythrocytes/HPF	0	2	2	8
Innumerable	2	2	5	61

From the Department of Pathology, Hurley Hospital, Flint, Michigan.

Supported in part by a grant from the Ames Co., Elkhart, Indiana.

*Occultest is a trademark of the Ames Co., Elkhart, Indiana.

the high dry power objective with a magnification of 430 x, and the average number of cells was recorded.

Each urine was then placed in one of the following categories:

1.	Negative	No erythrocytes seen in 10 HPF
2.	Rare	Only 1 erythrocyte in 3 or 4 or less of 10 HPF
3.	0-5	0 to 5 erythrocytes in nearly each of 10 HPF
4.	5-10	5 to 10 erythrocytes in each of 10 HPF
5.	10-25	10 to 25 erythrocytes in each of 10 HPF
6.	25-50	25 to 50 erythrocytes in each of 10 HPF
7.	50-75	50 to 75 erythrocytes in each of 10 HPF
8.	Innumerable	More than 75 erythrocytes in each of 10 HPF

Microscopic and chemical testing were performed independently and without knowledge of the results on corresponding samples. All microscopic examinations were performed by a resident in clinical pathology (G.M.L.).

Results

Of the 2,700 specimens examined, 948 showed the presence of varying amounts of blood with the Occultest, on microscopic study, or by both methods. This figure (35.1 per cent) was a rather high proportion of the total and was partially attributable to receipt of many uncatheterized specimens from females and many specimens from the obstetrical service. These results are summarized in Table I.

The number of leukocytes seen on microscopic examination was also compared to Occultest results, and Table II shows these results.

A positive Occultest in the presence of small or large numbers of leukocytes was in all instances accompanied by microscopic evidence of erythrocytes.

Discussion

It is apparent from Table I that the rapid tablet test and the microscopic findings correlate very closely. In urines which gave small and moderately positive tests to Occultest and showed no or rare erythrocytes on microscopic examination, it seems quite probable that here we were dealing with samples which had been voided for some time and that hemolysis of the erythrocytes had occurred. If this were the case, the positive tests could be attributed to free hemoglobin present in the urine specimens. The two specimens which showed a large positive test by the rapid tablet test yet were negative by microscopic examination might possibly be explained by hemolysis but more likely represent laboratory errors.

TABLE II.

Occultest Results	Leukocytes Per High Power Field					
	0	Rare	1-9	11-20	25-50	Innumerable
Small—slight positive	46	35	76	18	22	10
Moderately positive	23	16	28	10	14	8
Large positive	7	3	10	7	8	30
Negative	0	589	465	104	66	11

For uniform and correct results, it is imperative to read the test exactly two minutes after the addition of two drops of water to the tablet as the final step in the procedure.

It is also apparent from Table I that a rare erythrocyte seen on microscopic study may not, and probably will not, give a positive tablet test. When 0 to 10 erythrocytes are seen per high power field, the tablet test results are somewhat variable but for the most part give satisfactory correlation, particularly if more than five cells are seen per high power field. While the chemical test therefore is a satisfactory screening test for occult blood, a positive result is an indication for microscopic examination.

Table II shows no apparent relationship between positive tablet tests for occult blood and the presence of leukocytes in the specimens.

Summary

A simple, rapid tablet test (Occultest) for the detection of occult blood in urine and other body fluids has been compared with microscopic study of centrifuged urine sediment. The test is accurate, with a sensitivity comparable to the average standard microscopic study of urine sediment for erythrocytes. The test is simple to perform, but for satisfactory results it must be read at precisely two minutes after the final step in the procedure. The presence of small to innumerable leukocytes in the specimen does not influence the test results. The test should not be considered a substitute for careful microscopic examination but is valuable in the detection of occult blood, particularly in the frequent instances where hemolysis has occurred.

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Aging Is Part of Life

Aging always has been such a natural and inevitable part of life for all human beings that few persons have paid particular attention to it as a process or to the aging persons as having unique problems until recent times.

Illness always has been slightly more prevalent among older persons but physicians have undertaken to look after such individuals when they were ill regardless of their age and without making an issue of aging. There are no diseases or circumstances peculiar to the aging alone. Anyone can be without health and strength or friends and finances at any age.

Since the advent of social service activities and the entry of what might be called political expediences into the field of social inquiry and planning there has been more concern about aging. Numerous "do-good" programs have arisen.

Perhaps it is a new area for exploitation. The aging citizens may have become such a large segment of the voting population that the politicians are beginning to notice them. The politicians are sensitive about there being occasional hardship cases and are quick to exploit them by proposing a governmental panacea to be administered to all when only a few are in need.

The idea that a person should retire from active work when he reaches sixty-five years of age and thereafter live in complete idleness is a great fallacy. Subsisting on pensions derived from funds provided by employers or the federal government may be a way of life but it does not have the historic sanction that work has and it is not in the best interests of the workmen.

Probably primitive man worked at the time of the chase and battle but did not work very hard during the intervals. Modern man has become adjusted to work and modern economics demand it of him.

The maintenance of independence generally requires an income producing occupation.

The person who retires to the "Life of Riley" and does nothing is soon disappointed and his remaining years are less satisfying.

Many retired individuals are compelled to undertake new or different work after being forced out of previous employment. The work often is more strenuous than that done with such familiarity before retirement. Generally there is substantially less remuneration for almost any employment secured after sixty-five years of age. The exceptions are noteworthy.

Every man with a well-developed social consciousness assumes some responsibility toward other persons and must lend his efforts in trying to develop a more mature attitude toward persons in their later years.

In reality, the problems attributed to aging have been overstated and the experience, skill and mature judgment of such persons have been undervalued.

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A great many old timers continue in good health and to function rather well far into later life. A majority of them manage their own affairs in a satisfactory manner or have them handled within their own families. A minority may develop certain problems of health and finances or how to make the most of their assets. Inflation tends to make this a little difficult at present.

Aging persons should have the privilege of thinking and acting for themselves for the majority of them are quite capable and may resent interference. The vital processes remaining after a lifetime of competition with environment and the surviving memories, habits, ideas and precepts make up a rich storehouse for old age.

There are various attitudes toward aging. Negative concepts are to be avoided. Aging persons should expect to maintain passable health and to avoid becoming wards of a paternalistic government in old age.

The road back from the welfare state to individual and family responsibility may be long and rough but it is the most satisfying and will make aging a respected and integrated part of life.

(Guest editorial by Charles W. Sellers, M.D., Member of MSMS Geriatrics Committee)

The Reading Public and Medicine

It has been noticed many times previously that the public will read avidly almost anything which is published in the lay press or the national magazines bearing upon the practice and problems of the medical profession.

Articles in several magazines the last few months have indicated an improved and increasingly accurate and valuable use of this type of publication, to build a good feeling of respect for the profession. The past ten or twenty years has produced a wonderful improvement.

Recently, another group of articles has come to our attention. An educator asked if it was true that hospitals have set up procedures which doctors are supposed to follow in caring for certain accident cases.

The reference was to a report in *Look* magazine for March 1, 1960 which carried a cover page title, "TV's Roger Smith, How He Survived His Doctor's Mistakes." The article was six profusely illustrated pages with the heading "Five Hours From Death" in half inch type. There was a glowing case history about an accident, about the patient's numerous trips in and out of hospitals, about tests made and tests not made, and with names of doctors who cared for the patient publicized and criticized.

Without considering the right or wrong of diagnosis, treatment, etc., the ending demands serious thought.

We quote two paragraphs in the summation:

> "Negligence in the legal sense means carelessness or the failure to act as a reasonably prudent careful person would have acted under similar circumstances. Negligence for a doctor comes under the heading of malpractice."
>
> "The patient had consulted his attorneys and has been advised that he has a cause or action of malpractice against the first three physicians who attended him. Only a court can decide that issue."

We were astounded that such an article would be published, naming names and discussing procedures, mentioning neglect. Our response to the educator who asked the question was that this would stimulate a malpractice suit, but the magazine risks suit for defamation of character. The doctors have brought suit against the magazine for $3,450,000 damages.

Attention having been called to *Look* magazine, we found that for four issues it has published articles involving the medical profession in one way or another. On February 1, *Look* carried a 21-page, illustrated article on "Psychiatry—The Troubled Science," discussing what they claim is disagreement among psychiatrists as to whether the patient needs pills, medication or psychoanalysis, whether mental disease may be treated with drugs, etc., or with long continued psychoanalysis. On March 15, an article "Where Does Your Charity Dollar Go?" described most of the methods for raising money for charitable and other purposes including medical programs, United Funds, Community Chests and others. This article was very critical of most of these programs including some centered in Michigan. The next article was in the March 29 issue—"Our New Hospital Crisis." This is a well-written research into the methods of securing interns and house physicians for our hospitals. There is a lack of sufficient medical graduates in America to fill vacancies and the attempt is to fill these vacancies with foreign graduates, some of whom are very poorly trained.

The growing feeling among hospital patients that prices are too high, that the insurance fees are increasing too fast should be explained and calmed, this article said. Hospital and medical care must be given the patient, and there aren't enough internes or enough M.D.'s being graduated to fill the vacant places in our hospitals.

Can there be good in this group of articles by presenting medical problems to the public in a style of writing so suggestive of "muckraking" of the era up to two decades ago? That method of communication outlived its usefulness but helped to produce a better America. We are not taking issue, we are calling attention to a new or renewed type of communication with many qualms in our thinking.

Anniversary

The month of March this year was an anniversary. Blue Shield made no special celebration or announcement. However, at the meeting of the Board on March 2, Gordon Goodrich invited attention to the fact that Michigan Medical Service was having a twentieth anniversary.

Michigan Medical Service was officially opened the first of March, 1940, in a small 20-foot square room with a desk and a clerk, ready for business. The first activity was a service contract to cover surgery in the hospital for the Ford Motor Company employes, 78,000 of them.

So far as anyone in Michigan knew, that was the first Blue Shield contract.

Development of the Michigan Medical Service had occupied the attention of the various MSMS committees over a period of years. A very active one under Ralph H. Pino, M.D., after several years of study, reached the point where expert insurance, economic and legal advice was essential and no progress being made. He turned the material and the problem back to the Executive Committee of the Council of the Michigan State Medical Society who worked on it for another two years. After various consultations a special enabling act was deemed necessary from the legislature and was sponsored by Mrs. Dora Stovkman, a member of the legislature representing the farm groups.

The Governor signed the enabling act on May 18, 1939. The MSMS Council then completed the development of detailed plans which were presented to the House of Delegates and approved September 18, 1939. The first Board of Directors was established November 30, 1939. The Board consisted of seventeen men, fourteen of whom were M.D.'s and three of whom were laymen, namely: Henry R. Carstens, Andrew S. Brunk, Burton R. Corbus, Howard H. Cummings, L. Fernald Foster, Wilfrid Haughey, Ralph H. Holmes, William A. Hyland, Henry A. Luce, Vernor M. Moore, Ralph H. Pino, Phil A. Riley, Oscar D. Stryker, and P. H. Urmston. The laymen were Wm. J. Burns, Executive Director of the Michigan State Medical Society; William J. Norton, Administrator of the Cousins Children's Fund; and Dora H. Stockman of the legislature who had sponsored and was responsible for passing our enabling act.

At that time in history, Michigan Medical Service and its sponsors did not know of any other organization providing pre-payment of medical services. Some years later we discovered that the California State Medical Society had preceded us by a few months. There were also several small county groups in Oregon and Washington.

Pioneers in Michigan Medical Service had consulted with the American Medical Association and been told that they could not do this "insurance" job. They had consulted with insurance advisors, begging them to start it, but were told that medical services were uninsurable.

The first contract sold covering the 78,000 Ford employes presented problems which had to be solved. The group was fortunate in some ways. They were actually pushed into accepting this contract. Ford Motor Company was making available $1 per month for each employe, and was negotiating with the Michigan Society for Group Hospitalization (the original name for Michigan Hospital Service). Ford would pay 60c a month for the hospital bill and 40c was available for Michigan Medical Service to guarantee a service. What this 40c would cover nobody knew. There were no actuarial figures for there was no experience. The medical officers agreed with the membership to take this contract and service it, pay our doctors as far as the money would go—prorating if necessary. That was the original participating certificate. This first contract paid out. There was no loss in it. Later experience was different.

On September 25, 1940, the Michigan Medical Service Board was increased to 25 members with the addition of Drs. Earl I. Carr, H. A. Haynes, W. H. Huron, and F. J. Sladen, and laymen George Burke, John Reid, Richard Frankensteen and Harry Taliaferro. John Reid at that time represented the American Federation of Labor and later was state Commissioner of Labor. Messrs. Frankensteen and Taliaferro represented the CIO.

On September 17, 1941, the Board was expanded to thirty-five, adding the following medical men: O. O. Beck, T. E. DeGurse, H. J. Kuhlman, P. L. Ledwidge, R. S. Morrish, R. L. Novy, and hospital representatives Robert Greve and Mrs. Kate Hard, and lay representatives E. H. Fletcher and Earl Finney. Mr. Fletcher was a Certified Public Accountant.

What's Public About Health?

Today's world is not geared to those who still retain a love of privacy. The picture window, the Vistadome train, the open-floor-plan office, the ubiquitous television lens, the man-on-the-street interview, the bedroom telephone—these are all a part of the public era. Today, it seems that almost everything is a matter of public concern, from public schools to public welfare, from public roads to public health.

What, in short, is public about health?

Although we have never been asked that question in exactly that way, it is not merely rhetorical. On occasion, a practicing physician has been known to ask something like it. Oh, he may be willing to concede that the presence of dangerous communicable diseases require some public control but beyond that he is usually reluctant to go. We do not mean to imply that most, or even a great many physicians hold to this opinion. But it would be foolish to deny that there are some who do, and often they are most articulate about it.

This is unfortunate because it can deprive people of a quality of health care that is possible but is not too often realized—the quality of health care which can result from the close working together of physician specialists in public health and private physicians.

For, the fact is that a boil and a backache, vomiting, and a cervical smear are matters of public health concern. The fact is that whatever distinctions there may have been between private medicine and public health are now largely academic. For both are involved in the prevention, diagnosis, and treatment of disease and the promotion of health. The woman with a boil must be treated by her physician certainly. But what about the responsibility to the public to see to it that staphyloccocal infections do not endanger all persons, especially mothers and infants, who are in our hospitals. Control of such infections is not a problem with which the private physician alone can effectively deal. It requires organized community action. It is a *public* health matter.

A backache? It might, of course, be simply muscular pain. On the other hand, it might be an early symptom of heart disease. The private physician must diagnose, treat, and even try to prevent heart disease. But what about the necessity for organized action to help get people in for a periodic health appraisal so that an early diagnosis can be made? What about the need to help the victim of a cardiovascular accident regain the use of his arms and legs and even his mind, so that he may become a useful human being again rather than a vegetable? What about the necessity of assuring good nursing homes that really care about their patients and help them to recover instead of merely storing them until they die? These are all problems associated with heart as well as other chronic diseases. Without organized public action and support the private physician is helpless to solve them. They are *public* health matters.

Vomiting? It might mean any number of things. But what if it is a result of exposure to toxic levels of any one of a number of substances in an automobile repair shop or an industrial plant? Is this a problem that can be handled by the traditional doctor-patient relationship? Or is it not instead a problem to be dealt with by public health officials in cooperation with plant management so that the conditions which resulted in the exposure are corrected and the health of the workers protected?

And finally, a cervical smear. This definitely is a matter of physician-patient relationship. But it is also very much a public health problem. Cervical cancer, practically 100 per cent curable when found in time, last year killed 419 women in Michigan. As one of its functions then, the public health agency develops and promotes programs designed to detect cervical cancer early. They can do so only in close cooperation with local physician groups. It is in this way—and only in this way—that public health and private medicine together can save many lives which otherwise would be lost.

The examples are only a few of many which could be cited but they serve to emphasize the fact that there are many health programs which demand concerted public action for their solutions. That action finds its focus in public health agencies. This is not to say that it is solely of concern to "public health officials," for it emphatically is not. Every parent, every child—yes, and every physician, whether he recognizes it or not—is actively engaged in public health. For public health is literally everyone's business and everyone's responsibility.

A picture window has no appeal for us unless it overlooks our private back yard. We relish our privacy and will defend our right to and need for it, as loudly and as long as the next man. We are more than anxious to leave to each person the contemplation of his own navel, or ingrown toe-nail for that matter. But, when the health of the people is affected—as it often is—by conditions or events with which no individual family can cope, then it is a public responsibility.

That's what's public about health.

ALBERT E. HEUSTIS, M.D., M.P.H.

Veterinary Medical Group Invited to Join MAP

The Michigan Association of the Professions, with all its officers renamed for 1960, announces that the Michigan Veterinary Medical Association will become the fifth state organization member.

The veterinarians also become the first new group to be admitted to membership since MAP was organized.

* * *

THE NEW MAP BOARD of directors, chosen at the first annual Congress of the Professions, re-elected all officers for a second term. William M. LeFevre, M.D., Muskegon, will continue as president; serving with Floyd D. Ostrander, D.D.S., vice president; Elmer J. Manson, A.I.A., secretary, and Frederick Von Voigtlander, P.E., treasurer.

Plans are underway to hold hearings of the various MAP committees in different localities throughout the state. The hearings will be similar to the Pre-Congress Hearings in Detroit where experts in the related fields testified before the committees and recommended activities and policies.

* * *

THE 1960 BOARD of directors of MAP includes the following: for two-year terms—Alden B. Dow (architecture), Elmer J. Manson (architecture), Dr. Floyd D. Ostrander (dentistry), John S. Reed (engineering), N. O. Saulter (engineering), Maxwell F. Badgley (law), Luther R. Leader, M.D. (medicine), William M. LeFevre, M.D. (medicine), John E. Manning, M.D. (medicine), for one-year terms—Adrian N. Langius (architecture), Frederick E. Wigen (architecture), Philip N. Youtz (architecture), Dr. Henry L. Homan (dentistry), Dr. John G. Nolen (dentistry), Richard A. Little (engineering), Frederick Von Voigtlander (engineering), George H. Cary (law), and Gilbert B. Saltonstall, M.D. (medicine).

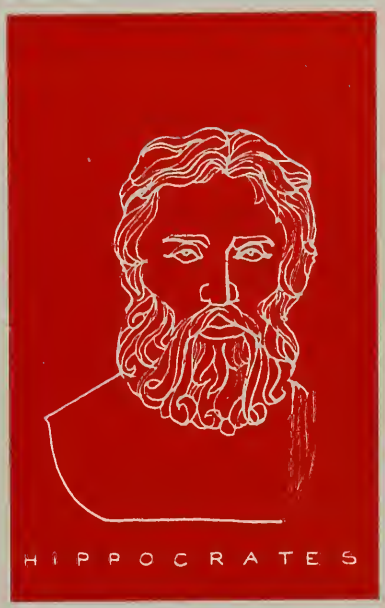
M.D.'s Contribute to New Comparative Medicine Meeting

Doctors of medicine, veterinarians and others in the health field joined together for the first annual Michigan Conference on Comparative Medicine at Michigan State University in March.

This first interdisciplinary meeting dealt with the basic and comparative aspects of cancer, which annually kills more than 250,000 Americans.

Organizer of the conference, W. W. Armistead, dean of the M.S.U. College of Veterinary Medicine, explained that the conference was the first to exchange information on a disease which man shares with the lower animals.

Michigan doctors of medicine who participated on the program were Samuel Albert, M.D., Detroit; H. E. Bowman, M.D., Grand Rapids; N. D. Henderson, M.D., Lansing; A. E. Heustis, M.D., Lansing; Clayton Lewis, M.D., East Lansing; W. J. Nungester, M.D., Ann Arbor; W. L. Simpson, M.D., Detroit; A. J. Vorwald, M.D., Detroit; L. W. Walker, M.D., Lansing.



ACS Unit Elects Officers

The American Cancer Society, Southeastern Michigan Committee, Inc., has elected Harry M. Nelson, M.D., who had been chairman of the Committee, as its president. Dr. Nelson, Detroit, was national president of the American Cancer Society in 1953.

Jerry J. Tobias, chairman of the board of Allen Industries, was named chairman of the Committee's Board of Directors.

Elected as vice-presidents were John R. McDonald, M.D., Detroit, and Mrs. Edward S. Wellock, Bloomfield Hills. Stanford C. Stoddard, vice-president of the Michigan Bank, was named treasurer and Henry Earle, senior vice-president of the First of Michigan Corporation, was elected secretary.

The Board elected Jason L. Honigman, senior partner of the law firm of Honigman, Miller & Schwartz, to be chairman of its executive committee.

The Committee's executive secretary is John L. Swan.

The Society's Southeastern Michigan Committee, Inc., with headquarters at 2895 West Grand Boulevard in Detroit, carries out this program in Wayne, Oakland and Macomb Counties.

Dental Association Studies Prepayment Plan Possibilities

The Michigan State Dental Association held a recent conference in Lansing to examine the possibilities of applying the prepayment concept to dental care in Michigan.

Kenneth J. Ryan, D.D.S., conference chairman, urged dentists to "put forth a plan through their association." He warned dentists against labor or management-operated plans which, he said, constituted "a distinct invasion of our right to control dental health, a right given to us by Michigan law."

Thomas C. Paton, Director of Professional Relations of Michigan Blue Shield, speaking from Blue Shield's experience, asserted that the most equitable and effective dental care plan would be one sponsored by Michigan's dental profession, and incorporating service and community rating principles.

American Medical Women's Association

The American Medical Women's Association will hold its annual meeting, June 9-12, 1960, at The Carillon Hotel, Miami Beach, Florida. Physicians are welcome to attend the scientific sessions. All women physicians attending the AMA meeting are cordially invited to the luncheon on Friday and the dinner on Sunday evening; both are complimentary. Reservations must be received in the Association office, 1790 Broadway, New York 19, New York on or before June 1.

Medical Manpower in Michigan

(Continued from Page 784)

in Michigan increased, but the state's physician-population ratio declined steadily.

2. Michigan's physician-population ratio has been consistently below that of the East North Central states and the United States.

3. When the supply of physicians is compared with effective economic demand for their services, over two-thirds of the states are better supplied with physicians than Michigan.

4. The two medical schools in Michigan are not providing a sufficient supply of graduates to take care of the loss of physicians through retirement and death and the increased need due to the state's expanding population.

5. The movement of physicians in and out of Michigan is accounted for largely by interns and residents.

6. The proportion of physicians in active private practice has decreased since 1930, but this decrease has been made up by an increase in the proportion of physicians whose practice is confined to the hospital.

7. Since 1930, the proportion of physicians who are full-time specialists has shown a striking increase.

8. In Michigan, the partial specialist is no more likely to become a full-time specialist than is the general practitioner.

9. The proportion of full-time specialists who are Board certified has shown a marked increase in the last decade.

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It is fully expected that Aldactone will change present medical concepts of the therapeutic limitations of managing edema. Many patients living in a greater or lesser state of edematous invalidism can now be edema-free. To others, gravely ill, Aldactone will be life-saving.

When used alone, Aldactone will produce a satisfactory diuresis in about half of those patients whose edema is resistant to conventional diuretic agents.

When Aldactone is used in a comprehensive therapeutic regimen, which includes a mercurial or a thiazide diuretic, a satisfactory diuresis and relief of edema may be expected in approximately 85 per cent of edematous patients *who would not otherwise respond.*

DOSAGE: For most adult patients the optimal dosage of Aldactone, brand of spironolactone, is 100 mg. four times daily. Aldactone should be administered for at least four or five days before appraising the initial response, since the onset of therapeutic effect is gradual when it is used alone. Aldactone manifests accelerated activity with greater response as early as the first and second days when used in combination with a mercurial or thiazide diuretic.

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Cancer and the Community

Mortality—Michigan is included among the north central states which have the highest cancer death rates in the nation. State mortality statistics show cancer was sixth as a cause of death in Michigan in 1900, second in 1930, and has not changed since. Cancer deaths increased from 1,450 reported in 1900 to nearly 11,000 in 1958. Lung cancer, alone, increased from 347 deaths in 1940 to 1,616 in 1958. Considered apart from other forms of cancer, lung cancer would rank as the sixth leading killer, ahead of diabetes and arteriosclerosis. Cancer causes over 16 per cent of all Michigan deaths—about one in six. Nearly half of the people dying of cancer are under age 65. The death rate is 139 per 100,000 people, compared with a total death rate of 840 per 100,000 from all causes.

Morbidity—There is little knowledge of cancer incidence on a community or statewide basis. The disease was made reportable on May 1, 1947, but because of alleged legal questions, few cancer cases are reported. Some type of cancer reporting is needed to provide meaningful information about people living with cancer. Cancer registers also are needed to add to our knowledge of where, when, and under what conditions cancer is occurring, and for follow-up of patients.

Detection—As well as emphasizing periodic physical appraisal, particularly for older persons, increasing emphasis has been placed upon finding lung cancer earlier with the aid of chest x-ray. However, as experience has shown, by the time most tumors are found on film, it is already too late. There is a time-lag of about three months between the initial interpretation of the screening film and treatment. In 1959, the state health department's four mobile units gave 281,894 chest x-rays, finding 515 suspected lung tumors, or 1.8 per 1,000 persons screened.

In 1954, the state health department Division of Tuberculosis and Adult Health participated for the first time in a cervical cancer screening program, involving local health departments, physicians, pathologists, and cancer societies. In the period 1954-58, nine such programs were held, reaching 8,500 women, finding almost four cases of cervical cancer for every thousand examined. It may be of interest to note that health department's x-ray units screened more than 1,500,000 persons for tuberculosis in the same five-year period, that 8,500 women were checked for cervical cancer in community programs. Yet, in 1958, cervical cancer claimed the lives of 419 Michigan women, while tuberculosis caused 395 deaths.

Care—The registration of radiation devices and radioactive materials indicates the gains made in providing resources for cancer treatment. There is a combined registration total of 105 superficial and deep therapy machines in doctors' offices; 140 in hospitals; six cobalt 60 in operation and eight more in developmental stages; along with 49 hospitals using isotopes for diagnosis and treatment purposes.

While much has been done to provide technical equipment for use in cancer therapy, we have not done so well in other areas. Local health departments are short of staff and able to make only spotty efforts at home nursing for cancer patients. In fact, in 1957, local health departments, serving areas where nine out of ten Michigan people live, reported providing only 4,200 clinical or nursing visits or services for cancer patients. This compares with over 240,000 clinical or nursing services for tuberculosis control in the same year. There is no chronic disease or home nursing service at all for nearly half of the state's population. We also lack adequate chronic disease facilities and quality nursing homes to care for cancer patients in terminal stages. The average terminal patient requires 91 days of care, with about four hours of skilled nursing care a day. This becomes exceedingly expensive when it is provided in an acute general hospital.

Goals—While there is reason to hope for better cancer screening tests and improved treatment methods, much more should be done with the knowledge and weapons already in the arsenal.

We should—

- Sharpen education against quackery, and also emphasize specific types of cancer in the age groups where the incidence is highest, or where known dangers exist.
- Establish some kind of meaningful cancer reporting, and set up case registers.
- Continue to be vigilant in protecting against carcinogenic substances, and also extend efforts in industrial health to combat air pollution, with its possible implications in cancer control.
- Expand cytologic screening to save the lives of women, speed the follow-up of x-ray findings and explore the potentials of sputum cytology.
- Develop chronic disease care facilities, quality nursing homes and home nursing services in many areas where such service now is lacking.

Through expanded cooperative action, much progress can be made against cancer, and at a faster pace.

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Each tablespoonful (15 ml.) contains 0.33 Gm. (5 gr.) equivalent to 0.16 Gm. (2½ gr.) Theophylline U.S.P. Supplied: Bottles of 1 pint and 1 gallon.

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Cancer Comment

Cancer of the Cervix

Harry M. Nelson, M.D.

By using present established diagnostic methods, cancer of the cervix can be detected early enough so that, with prompt and effective treatment, 85 to 90 per cent will survive five years or more, compared with the present average survival rate of less than 50 per cent. But to achieve this end, the disease must be diagnosed during its preclinical or silent stage.

Just as the periodic health examination is incomplete without a thorough vaginal examination, so the pelvic examination is incomplete without a vaginal cell examination and visualization of the cervix.

Ulcerative and fungating lesions are easily recognized, but the diagnosis should always be confirmed by a biopsy.

The early invasive carcinoma and carcinoma *in situ* deviates very little or not at all from the normal. If carcinoma *in situ* is detected and treated, the cure rate is practically 100 per cent.

Vaginal and cervical smears should be taken and and sent to an approved laboratory for expert interpretation.

* * *

SMEARS MAY BE OBTAINED in several different ways. The pathologist generally provides the directions for the method which he prefers. He also supplies the necessary materials.

The patient should not take a douche before coming to the office. Always obtain the smear prior to the pelvic examination and before any instrumentation is attempted. It should be fixed immediately in 95% alcohol and ether.

Scraping material directly from the cervix is an excellent way of obtaining a smear for early diagnosis of that organ. A spatula, tongue blade, or cotton applicator may be used. It is important to get the cells from as far up in the canal as is possible. But one must avoid scraping vigorously.

Some pathologists prefer at least one smear from the posterior fornix and one from the cervix (scraping). Two smears are better than one.

The tampon method of obtaining smears does not appear sensitive enough for general use.

* * *

WHILE THE PATHOLOGIST CAN BE counted on to do his part in preserving the doctor-patient relationship, he requires specimens that are properly collected and preserved. It should be remembered that he must correlate the cytological findings with the biopsy as well as with clinical status of the patient.

Most positive smears, as is to be expected, come from symptomatic patients who consult the physician because of the spotting, discharge or frank vaginal bleeding. But it is the positive smears discovered in asymptomatic patients, showing no physical indications, that make the laborious work of screening all patients so eminently worth while.

In a recent study of a group of almost 16,000 asymptomatic women, examined at the Yates Memorial Clinic, Detroit, who underwent routine vaginal cell examinations, an accuracy of 87.8 per cent has been demonstrated.

It is particularly significant to note that a quarter of the invasive and approximately three-quarters of the pre-invasive carcinomas of the cervix were not recognized on vaginal inspection. In each of these cases, before the smear was found to be positive, a thorough history was taken and a physical examination performed, including a pelvic examination with direct visualization of the cervix, by a staff physician, at which time no evidence of neoplasm was found. Without the smears as a routine screening procedure, these lesions would have been missed at a stage most amenable to cure.

* * *

HISTORY AND PHYSICAL EXAMINATION are not, therefore, reliable methods for the diagnosis of cancer of the cervix. Routine cell examination for uterine cancer has been found a most effective diagnostic aid in cancer detection and is credited with the primary detection of 42.8 per cent of all cancer of the cervix at the Yates Clinic.

A definitely positive cell examination indicates that the patient has cancer. The clinician must then assume the responsibility of proving it beyond a doubt by obtaining a proper biopsy. The most effective way to achieve this is to hospitalize the patient for cold conization and a diagnostic curettage. This, in our experience, is the only sure method of obtaining sufficient tissue and of determining the extent of the lesion.

So accurate is the vaginal cell examination in the diagnosis of cervical cancer, that continued follow-up of every false positive report should be resumed until each and every case has been resolved to the satisfaction of all concerned.

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EDITORIAL COMMENT

Aged Deserve Lasting Help

Detroit Free Press, March 24, 1960

HEALTH CARE for the elderly already has become one of the major political issues of this presidential election year.

All problems of the aged have been under wide study and discussion for several years. The medical profession, deserving of credit for first recognizing that the growing numbers of aged would create specific problems, began extensive studies about 10 years ago in a new field it elected to call geriatrics.

Lately, however, the field has been pre-empted by some politicians who see the problems mostly as an opportunity to gather votes with an issue seemingly as invulnerable as motherhood and patriotism.

The Forand bill, which would provide free hospitalization and medical care for Federal social security pensioners, has Congress and the two major political parties in turmoil.

The topic has become super-heated by those who see the issue of medical care as a black-or-white choice between all-out "socialized medicine" for all elderly people or doing absolutely nothing to help that percentage of the aged who are in really dire need.

To those whose concern for the aged is more responsible and reasoned, there ought to be a middle ground on which the pressing problems can be solved immediately without making the elderly the pawns in an opportunistic political scramble for votes, and which also will provide time for the needed observation and formulation of long-term solutions to problems that will continue to exist.

* * *

FIRST OF ALL, portraying all retired people as living in poverty-stricken misery, scarcely honors those many retired people who have managed their lives (with considerable assistance from the ever-increasing trend to personal or organized pension plans) so as to provide themselves with at least a reasonably comfortable life.

This fast-growing tendency of private business and industry to assist people in the long-range task of providing for their so-called nonproductive years also should do much to alleviate what now appears to be a mass problem.

Many elderly persons with severe problems and desperately in need of immediate assistance were caught in the interval between the social era when sons and daughters provided for their aged parents and the more modern time when social security and private pension plans took over the job.

During the last few years when the problems—material, medical and personal—of the aged have been under study, the situation has changed constantly. No definite patterns of long-range need have been agreed upon by the experts. Therefore, the adoption of solutions on a mass scale appears unwise.

* * *

IF QUICK REMEDIES for the many who are in truly abject circumstances are needed, there are many alternatives to a massive program of compulsory health insurance—which would carry with it the bureaucratic high costs, inefficiencies, inequities and inflationary effects of all such blanket schemes.

Combatting inflation—the retired person's greatest enemy—might be considered the most pressing task.

Without doing any harm whatsoever, the earned income allowable under Federal social security could be increased greatly, thus permitting many who want to work to do so. Tax relief for the aged and for those who contribute to their support could be granted. President Eisenhower's known wish to provide voluntary health insurance, with assistance to those subject to catastrophic illness and unable to buy such insurance, is another worthwhile approach.

Such remedies might turn out to be a permanent solution to the changing needs of the aged.

And at least these and other means could provide quick relief for those who need it most and give the nation the time it needs to meet in a considered and rational manner its recognized and accepted responsibilities to its valued and respected senior citizens.

New Dimension

The PR Doctor, March, 1960

The Michigan State Medical Society has added an unusual dimension to medical TV production with its series of live regional or "outstate" telecasts, which have the advantage of providing county societies with a locally oriented public relations vehicle.

Titled "Family Doctor," three of the four planned productions have already been presented in various Michigan cities—the first show in Detroit during the 1958 MSMS Annual Session, the second in April, 1959, from Kalamazoo, and the third last fall from Grand Rapids. The series is being produced by

(Continued on Page 802)

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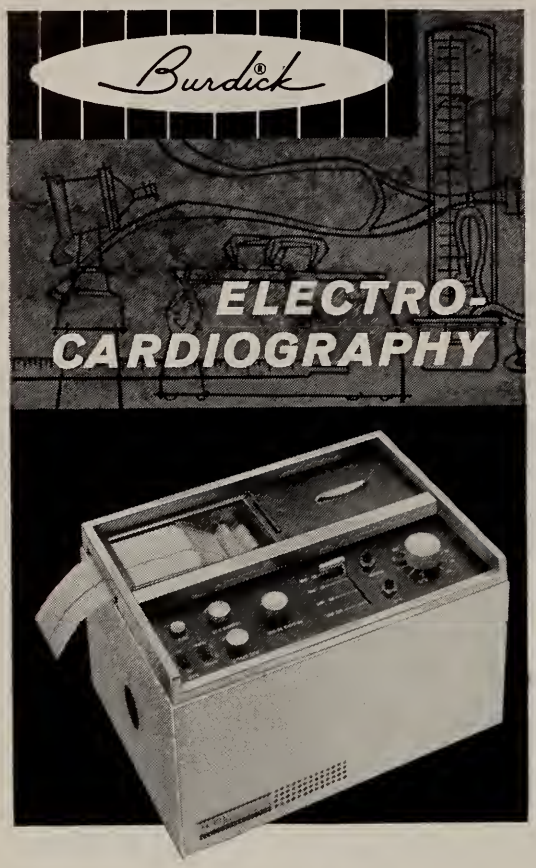

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New Dimension

(Continued from Page 800)

MSMS, the Michigan Health Council, and the local county medical society, and has featured dramatizations of the facilities and services obtainable in a modern doctor's office as well as demonstrations of surgical procedures.

With more and more societies realizing the virtues of medical broadcasting, the immediate problem becomes one of bridging the gap between the TV studio's idea of what constitutes high quality medical programming, and the individual society's own ideas on how best to utilize medical "talent." Here again the answer lies in closer ties with local TV producers.

In order to insure the best possible programming with the resources available, medical societies should sit down with TV experts, get their suggestions and take advantage of their "know-how" in the field. This is obviously the best policy for all concerned!

The Michigan Health Council's M.D. Placement Bureau will help Michigan doctors obtain a locum tenens to cover the office while a doctor might be on an extended leave from the office or absent on a holiday. Inquiries may be addressed to M.D. Placement Bureau, Michigan Health Council, 712 Abbott Road, East Lansing.

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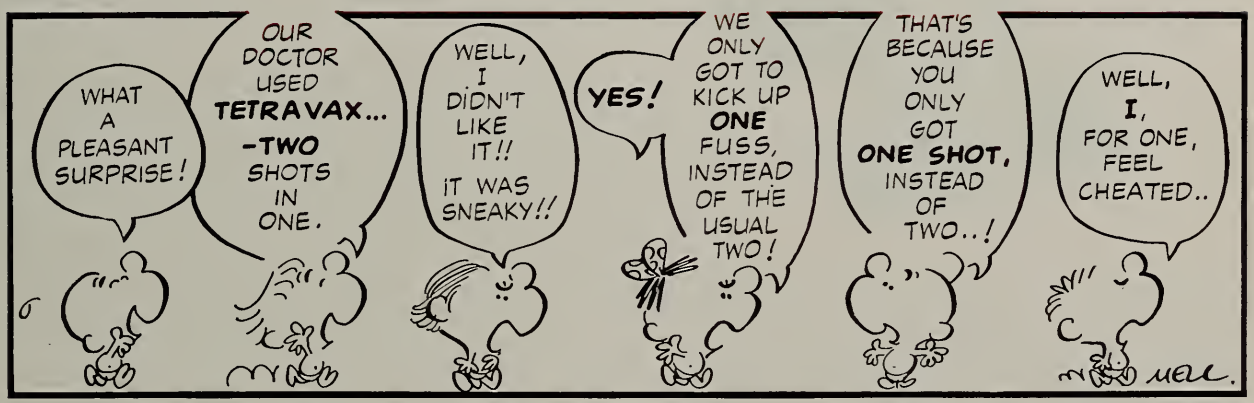

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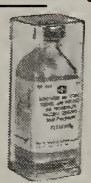

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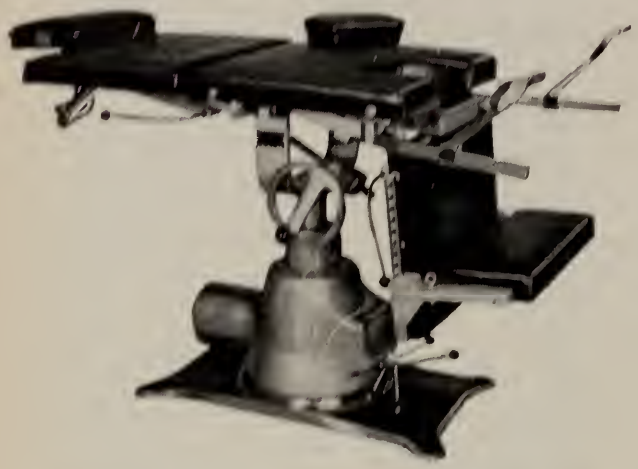

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Obstetrical Brevits

(This column is sponsored by the Michigan Society of Obstetrics and Gynecology)

On Maternal Mortality Review and Staphylococcus Infections

For quite some years, men in Michigan have reviewed Maternal Mortality Statistics. The Evaluation committee is part of this study. Unidentifiable case histories are sent from the State Health Department to this committee and the cause of death is classified and discussed. Doctor Norman Miller has been chairman. The original committee consisted of Drs. Norman Miller, George Kamperman, Charles Stephenson and for a while Alexander Campbell. When Doctor Kamperman asked to be relieved I was fortunate enough to replace him. The experience has been one of the highlights of my life.

We meet in Doctor Miller's office on a Thursday afternoon and read the case histories of the obstetrical fatalities. All of us do, or have done, obstetrics and these presentations often frighten us very personally as we think of the patient and the physician involved. After working the afternoon we adjourn to dinner and informal talk. Doctor Behney of the Health Department, a certified obstetrician, and a man of private obstetrical experience, has been a fine addition to our group. He replaced Doctor Alexander Campbell of Grand Rapids who many of you fondly remember.

Out of these reviews and discussions pictures appear. The polio deaths during pregnancy and the results of the Salk Vaccine; in October of 1957, the frightening death rate from influenza (better than 10 per cent of the total maternal deaths for that year were from this disease); in 1958 we saw a new threat appear—the staphylococcus puerperal mortality. Seeing these puerperal infections occur brought back to us memories of previous days, days before antibiotics, days that we hoped were gone forever. The helpless feeling of attending sepsis, uncontrolled, is a real nightmare—we remembered.

We called a meeting of the State Maternal Health Committee and presented papers on the handling of sepsis and its reference and application to the present situation. These papers will be presented in forthcoming brevets. Further progress of the possible epidemic will be presented as the picture unfolds.

Improved technique helps combat puerperal sepsis. Simmelweis, years ago, discovered that if attendants washed their hands in chlorine water before a delivery the mortality was reduced from ten to one per cent. However, important as it is, technique never eliminated sepsis until after the advent of antibiotics. Then for several years, except for septic abortion, thrombophlebitis and neglected cases, the incidence of serious infection was tranquilizing.

If we have an antibiotic "breakthrough" we must find another answer. For this reason we urge you to cooperate with the regional consultants, get autopsies and cultures wherever infection is suspected and cooperate with local infection committees. If possible send tissues from autopsies to the tissue registry in Ann Arbor. Doctor French, head of the University of Michigan Pathology Department, is cooperating in this study.

Say you saw it in the Journal of the Michigan State Medical Society

Needs Consent of Patient

Dear Doctor:

Your request for legal opinion presents a state of facts which can be summarized as follows: A young woman was admitted to a local hospital suffering from a physical illness. She appeared to be despondent and members of the staff felt that she might become suicidal. The hospital administration requested of her physician that he obtain psychiatric consultation. The physician advised consultation but both the patient and her relatives refused to consent. Could the physician arrange such consultation against the wishes of the patient and her relatives?

In my opinion the foregoing question must be answered in the negative.

To bring another physician into the picture under such circumstances would not only deprive the patient of a right of free choice of physicians but would be apt to place the attending physician in the position of disclosing privileged matters and of violating the patient's right to privacy. It would also place the consulting physician in the position of an unauthorized volunteer. In short, I am of the opinion that the physician-patient relationship cannot be established, even on a consulting basis, without the consent of the patient or of someone qualified to consent in her behalf.

Although, perhaps, beyond the scope of your inquiry, it should be pointed out that the refusal to accept consultation might well justify the attending physician's withdrawal from the case, upon proper notice, if he felt that continued proper handling of the case required consultation.

Very truly yours,
LESTER P. DODD
Legal Counsel, MSMS

New York Verdict

This case was an action by a patient of a private hospital against the owner and operator of the hospital and the attending surgeon for injuries allegedly sustained as a result of the defendant's failure to prevent, or to detect within a reasonable time, the infiltration into his tissue of a drug being administered by a resident physician as a component of an intravenous injection. The jury rendered a verdict of $22,500 for the plaintiff. On appeal, the New York Supreme Court, Appellate Division, Second Department, reversed the judgment against the surgeon. The judgment against the owner and operator of the hospital was also reversed, and a new trial granted unless the patient would stipulate to reduce the judgment to $17,500. The Court held that the surgeon had the right to rely upon the competency of the hospital staff, particularly that of the resident physician, to insert the needle properly and to check frequently the intravenous flow after the drug had been added. (*The Citation*, December 3, 1959).

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IN MEMORIAM

ROBERT E. ANSLOW, M.D., sixty-four, a Detroit physician for forty years, died March 16, 1960.

A native of Ionia, Doctor Anslow was a graduate of Olivet College and received his medical education at the University of Michigan. He was an eye, ear, nose and throat specialist.

In addition to his medical affiliations, he was a member of the Detroit Boat Club, Grosse Pointe Congregational Church, Phi Rho Sigma Society and the Alumni Association of the University of Michigan.

M. W. BUCKBOROUGH, M.D., fifty-six, a South Haven physician, died March 25, 1960.

Born in Sault Ste. Marie, Doctor Buckborough was a graduate of Albion college and the University of Michigan Medical School.

Doctor Buckborough was chief of staff at South Haven Hospital.

He was a boat enthusiast, a member and one of the founders of the South Haven Yacht Club and a member of the River Bend Boat Club. His other memberships included South Haven First Methodist Church and the Masonic Order.

LEWIS M. CAREY, M.D., eighty-three, a former Detroit-Pontiac area physician for forty-three years, died in Smyrna Beach, Florida, February 29, 1960.

Doctor Carey, born in Port Huron, was graduated from the old Michigan College of Medicine and Surgery, Detroit, now Wayne State University College of Medicine.

He was a Spanish-American War veteran.

Doctor Carey was a member of the Doctor William Beaumont Foundation, St. Clair, Michigan. Other affiliations included life membership of Hazen S. Pingree Camp 5, United Spanish War Veterans, New Smyrna Beach, Florida, Community Church and membership in the Alumnus of Wayne University College of Medicine.

CLARENCE D. CHAPIN, M.D., eighty, a Columbiaville physician since 1904, died March 20, 1960.

Doctor Chapin was a graduate of the Detroit Medical College.

In 1954, Doctor Chapin received a Fifty-Year Award from the Michigan State Medical Society, honoring him for having practiced medicine for half a century.

He belonged to Lapeer Post No. 16, American Legion and the Columbiaville Rotary Club.

KENNETH H. COWDERY, M.D., forty-nine, St. Joseph physician for twelve years, died February 22, 1960.

Doctor Cowdery was born in Warren, Ohio, attended Western Reserve University in Cleveland and was graduated from medical school in 1939. His internship was taken in Cleveland City Hospital and his residency at City Hospital in Glenville, Ohio. He enlisted in the Army in World War II and became a battalion surgeon in a ski troop division. Upon

(Continued on Page 808)

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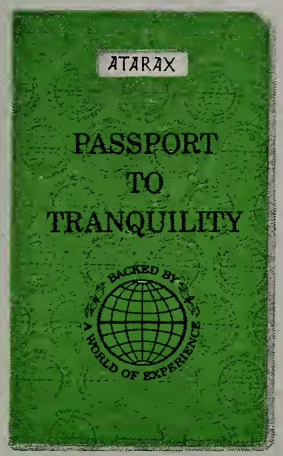

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IN ELDERLY PATIENTS well tolerated by debilitated patients	"...seems to be the agent of choice in patients suffering from removal disorientation, confusion, conversion hysteria and other psychoneurotic conditions occurring in old age." Smigel, J. O., et al.: J. Am. Geriatrics Soc. **7**:61 (Jan.) 1959.	Settel, E.: Am. Pract. & Digest Treat. **8**:1584 (Oct.) 1957. Negri, F.: Minerva med. **48**:607 (Feb. 21) 1957. Shalowitz, M.: Geriatrics **11**:312 (July) 1956.
IN ALLERGIC PATIENTS useful adjunctive therapy for asthma and dermatosis; particularly effective in urticaria	"All [asthmatic] patients reported greater calmness and were able to rest and sleep better...and led a more normal life....In chronic and acute urticaria, however, hydroxyzine was effective as the sole medicament." Santos, I. M., and Unger, L.: Presented at 14th Annual Congress, American College of Allergists, Atlantic City, New Jersey, April 23-25, 1958.	Eisenberg, B. C.: J.A.M.A. **169**:14 (Jan. 3) 1959. Coirault, R., et al.: Presse méd. **64**:2239 (Dec. 26) 1956. Robinson, H. M., Jr., et al.: South. M. J. **50**:1282 (Oct.) 1957.
IN HYPEREMOTIVE ADULTS does not impair mental acuity	"...especially well-suited for ambulatory neurotics who must work, drive a car, or operate machinery." Ayd, F. J., Jr.: New York J. Med. **57**:1742 (May 15) 1957.	Garber, R. C., Jr.: J. Florida M. A. **45**:549 (Nov.) 1958. Menger, H. C.: New York J. Med. **58**:1684 (May 15) 1958. Farah, L.: Internat. Rec. Med. **169**:379 (June) 1956.

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KENNETH H. COWDERY, M.D.

(Continued from Page 806)

returning to civilian life, he established a practice at Huron, Ohio, where he served until moving to St. Joseph.

Doctor Cowdery was a staff physician at Mercy and Memorial hospitals, and served one term as chief of staff at the St. Joseph institution.

Fraternal and social affiliations included the Masons, St. Joseph Kiwanis, the St. Joseph River Yacht Club, the Berrien Hills Country Club and Phi Rho Sigma.

FRED H. DRUMMOND, M.D.,

sixty-eight, Kawkawlin general practitioner for thirty years, died March 31, 1960, after a brief illness.

Doctor Drummond was an MSMS Councilor from the 10th District for ten years. He was also past chairman of the Publication Committee of the MSMS Council and a Past President of the Bay-Arenac-Iosco County Medical Society.

A native of Bay City, Doctor Drummond graduated from Northwestern University, Chicago, in 1920, and interned at Kansas City General Hospital, Kansas City, Missouri. He served in the Army Medical Corps in 1918.

Dr. Drummond served as chief of staff for both Mercy Hospital and General Hospital in Bay City. Memberships included the American Legion and Sigma Chi fraternity.

HAROLD J. DAMSTRA, M.D.,

fifty-seven, a Grand Rapids physician and member of the staff of Butterworth hospital thirty years, died February 26, 1960.

He was also a staff associate of Blodgett Memorial hospital and specialized in obstetrics and gynecology. Doctor Damstra, a native of Holland, practiced at Wayland from 1930 to 1938, at which time he moved his office to Grand Rapids.

He was a graduate of Hope college and Northwestern University School of Medicine.

He served in the army medical corps from 1942 to 1945, spending two years in the European theater.

In addition to his medical affiliations, he was a member of the Central Reformed church and South Kiwanis club.

CHARLES A. NEAFIE, M.D.,

seventy-seven, for thirty-five years Pontiac health director, died March 23, 1960.

Doctor Neafie was a native of New York City. He interned in New York hospitals, after graduating from University of Maryland in 1909. In 1912, he practiced as a resident physician at Pontiac State Hospital.

In 1918, Doctor Neafie became the city's first full-time health officer, a post he held until his appointment as director of health in 1921. He retired four years ago.

Doctor Neafie was cited for outstanding services four years ago by the Oakland County Medical Society. He is a past president of the Oakland County Medical Society and past exalted ruler of Elks Lodge No. 810.

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AMA Forms Fifty-Year Club

The American Medical Association has announced the establishment of a Fifty-Year Club, being organized primarily as a social function for physicians who have been in practice fifty years or more. There are no dues. The plans are to have a room set aside at each clinical meeting of the American Medical Association for members to meet. A luncheon or breakfast will be decided upon at each meeting. Members will be given fifty year buttons. Usefulness and benefits will depend on the desires of the membership.

J. H. McCurry, M.D., of Cash, Arkansas, is the organizer. He would be pleased to receive a note stating from doctors interested in becoming a member, give the date of graduation with the printed name and address.

WRITES MANUAL—Robert M. Heavenrich, M.D., Saginaw, Chairman of MSMS Child Welfare Committee, is the author of a book entitled, "Care of Children in Hospitals," published by the American Academy of Pediatrics. Dr. Heavenrich is a member of the Academy's Committee on Hospital Care which prepared the manual to help communities with the problem of planning hospital construction and organizing and operating pediatric service in a community hospital. Copies of the manual will be distributed to all Michigan pediatricians and hospitals with the cooperation of the Michigan Branch of the American Academy of Pediatrics and the Michigan Health Department.

OFFER HELPFUL CARD—Forty thousand wallet-sized cards with 12 simple rules for emergency childbirth for expectant mothers are being distributed by the Michigan Office of Civil Defense. The cards were developed by the MSMS Committee on National Defense, Max L. Lichter, M.D., Melvindale, Chairman.

The cards will eventually be distributed to patients by local physicians.

HONOR GALESBURG G.P.—James C. Breneman, M.D., of Galesburg, was named winner of the 1960 Ross awards of $1,000.00 given annually by the American Academy of General Practice for outstanding scientific articles published in GP, the association's monthly journal.

HEADS STATE GROUP—Joseph A. Witter, M.D., of Highland Park, began duties in March as the new president of the Michigan Chapter of the American College of Surgeons. He assumed office at the eighth annual meeting at Flint.

The new president is a graduate of the University of Michigan Medical School and has been practicing since 1934. He is chief of the Department of Surgery at the Highland Park General Hospital.

NATIONAL PRESIDENT—Ross V. Taylor, M.D., of Jackson, was chosen president-elect of the American Society of Internal Medicine at its meeting in San Francisco April 1. Doctor Taylor was president of the Michigan organization in 1958, and will succeed to the AAIM presidency in April, 1961.

AMA GOLF TOURNAMENT—The American Medical Golfers Association will hold its 44th Annual Tournament at the Diplomat Hotel and Country Club, Hollywood, Florida, Monday, June 13. All MSMS members, who are golfers, are invited to participate.

MTA RESEARCH GRANTS—The Michigan Tuberculosis Association will award grants-in-aid to qualified persons wishing to carry out research in the field of tuberculosis and pulmonary disease, announced John W. Towey, M.D., of Powers, Michigan, chairman of the Medical Research and Education Committee of MTA.

Application forms for grant-in-aid of medical research may be obtained from: The Chairman of Medical Research & Education Committee, Michigan Tuberculosis Association, 403 Seymour Avenue, Lansing 14.

OFFER BOOKLET—A question-and-answer booklet about drug prices is offered by the Pharmaceutical Manufacturers Association as a public service. Copies may be obtained from the Association, 1411 K Street, NW, Washington, D. C.

SPEAKS—Samuel J. Levin, M.D., Detroit, participated in a symposium on "The Allergic Child" at New Haven, Connecticut, April 6.

NEW FEDERAL PUBLICATIONS—The U. S. Department of Health, Education and Welfare has published two new numbers of "Health Statistics" from the U. S. National Health Survey. Series B—No. 13 deals with "Heart Conditions and High Blood Pressure," while Series D—No. 1 deals with "A Study of Special Purpose Medical-History Techniques."

SEEK FUNDS—The Dartmouth Medical School has launched a drive for $10,000,000 in capital funds. Among principal objectives of the fund campaign are the construction of a new $3,000,000, seven-story Medical Science Building, now under way, and construction of library and auditorium facilities.

HELPS HOPE COLLEGE—John Heneveld, M.D., retired Muskegon doctor and a past president of the Muskegon County Medical Society, recently gave an endowment, valued at $200,000, to the Hope College Endowment Fund.

TAKES NEW POST—Charles I. Herrington, M.D., of Bad Axe, has been named the first full-time medical director of the Huron County Health Center. The appointment had been authorized by the State Welfare Department and made by the Huron County Department of Social Welfare.

APPOINTED—David Jacknow, M.D., Detroit, has been appointed to the Advisory Council of the State Industrial Safety Commission by Governor Williams.

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports that the following topics were covered during the month of March on the weekly Sunday morning program over WJBK-TV in Dertoit: Michigan Clinical Institute, Nephrosis, Epilepsy and Tuberculosis.

M.D.'S ART EXHIBIT—The 23rd annual exhibition of art works by American physicians will be held June 13-18 at the Miami Beach Exhibition Hall and Auditorium. Held in conjunction with the annual convention of the American Medical Association, the show will include over 300 works of art in oil, water color, sculpture, crafts, photography and lithography. Prospective exhibitors may obtain further information from Kurt F. Falkson, M.D., Secretary of the

American Physicians Art Association, 7 East 78th Street, New York City.

WSU RESEARCH GRANTS—The Wayne State University's Board of Governors has accepted a grant of $127,480 from the U. S. Public Health Service, National Institutes of Health, for six projects. Included was $80,736 to continue a survey in cervical cancer; $30,404 will be used to continue the postgraduate training program in psychiatry.

The Michigan Cancer Foundation gave $26,497 for research in lung cancer.

DOCTOR DORSEY LECTURER—John M. Dorsey, M.D., professor and chairman of Wayne State University's department of psychiatry, presented the final lecture in the 1960 Leo M. Franklin Memorial Lecture Series. "The Growth of Self Insight," was the topic for Doctor Dorsey.

ELECT HOSPITAL OFFICERS—The Detroit Memorial Hospital Board of Trustees has elected the following officers for 1960: Mervyn G. Gaskin, president; Gordon K. Glasgow, M.D., vice-president; Simpson C. Leonard, secretary; William J. Thomas, treasurer; and James E. Lofstrom, M.D., assistant secretary-treasurer.

EXPANDS WARNINGS—A new trade advisory service on label warnings for drugs and therapeutic devices available without a doctor's prescription was announced today by the Food and Drug Administration. A compilation has been printed of such label warning statements for guidance of drug manufacturers in devising labels which meet the requirements of the Federal Food, Drug, and Cosmetic Act for "such adequate warnings . . . as are necessary for the protection of users.

FDA said consumers can take advantage of this health protection only by reading carefully and following the directions for use on the label of drug products and by paying particular attention to the warning statements.

MHC PLACEMENT—The Michigan Health Council reports that it has assisted Don G. Davis, M.D., to a practice in Kalamazoo.

OFFER CAMPING—The second annual summer camp program for children with epilepsy will be held in June at the National Children's Rehabilitation Center at Leesburg, Virginia. Applications for admission are now being accepted, according to Charles Kram, M.D., director.

PROGRAM CHAIRMAN—James L. Wilson, M.D., Ann Arbor, will be program chairman for the First International Conference on Congenital Malformations to be held in England in July. Under auspices of the National Foundation, the conference is designed to focus world-wide attention on the subject of birth disorders.

MEET IN EUROPE—The 6th International Congress of Internal Medicine will be held August 24-27 at Basle, Switzerland. Principal subjects will include Pathogenesis and Therapy in the Edema and also Enzymic Regulations in the Clinic.

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1. Pomeranze, J. et al.: J.A.M.A. 171:252, Sept. 19, 1959. 2. Walker, R. S.: Brit. M J. 2:405, 1959. 3. Odell, W. D., et al.: A.M.A. Arch. Int. Med. 102:520, 1958. 4. Pearlman, W.: Phenformin Symposium, Houston, Feb. 1959. 5. Lambert, T. H.: ibid. 6. Skillman, T. G., et al.: Diabetes 8:274, 1959. 7. Sugar, S. J. N., et al.: Med. Ann. Dist. Columbia 28:426, 1959.

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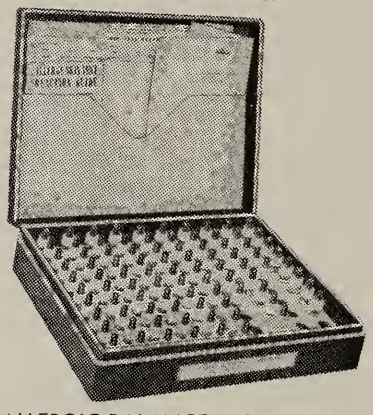

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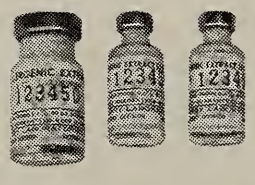

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Sixty-eight Federal Emergency Hospital units like this one are stored in Michigan for possible use in Civil Defense emergencies. The "unseen" hospital units were on display during March and April at Kalamazoo, Bay City, Gaylord, Marquette, Ann Arbor, Grand Rapids and Lansing for doctors, CD workers and the public officials. The photo was taken at the U-M campus.

NURSING RESEARCH—The U. S. Public Health Service has announced four new grants for research in nursing, including one to Mable A. Wandelt, of Wayne State University School of Nursing.

NEW APPOINTMENT—Edward J. Connors, assistant professor of hospital administration at the University of Michigan, has been appointed superintendent of hospitals at the University of Wisconsin.

CANCER CONFERENCE AT WAYNE—National authorities discussed the nature and treatment of cancer at a symposium April 6 held at Wayne State University College of Medicine.

Eugene Pendergrass, M.D., University of Pennsylvania Hospital, gave the opening paper on "Treatment of Inoperable Carcinoma of the Breast." Dinner speaker was Shields Warren, M.D., Harvard University on "Cancer Research—Tomorrow's Cure." Other speakers were Murray Copeland, M.D., Georgetown University Medical Center, "Benign Tumors of the Breast;" Harry W. Southwick, M.D., University of Illinois, "Cancer of the Head and Neck," and Howard Ulfelder, M.D., Harvard University, on "Carcinoma of the Cervix—Early Diagnosis and Treatment."

DR. POLLARD SPEAKS—The American Gastroenterological Association held its annual meeting in New Orleans April 1-2. H. Marvin Pollard, M.D., the president of the Association, is professor of internal medicine at the University of Michigan. He gave his presidential address April 2. A number of Michigan physicians participated.

PATHOLOGY REPORT—John R. Cummings, M.D., of the University of London and the Institute of Neurology, Queen Square, London, was a guest lecturer at the University of Michigan Medical Center, March 21. His topic was "Cerebral Lipidoses." The program was sponsored by the Department of Neurology, in the University Hospital.

Say you saw it in the Journal of the Michigan State Medical Society

SPEAKS AT WORKSHOP—I. M. Altshuler, M.D., St. Clair, was a speaker at the Michigan Congress of Parents and Teachers "Family Life Workshop" held this spring at Western Michigan University.

HIDDEN HAZARDS—The American Medical Association has published a 20-page booklet, "Hidden Hazards" about the unlabeled poison problem. Latest U. S. statistics show that as many as 1422 persons died in a year from accidental overexposure to packaged chemicals in one year.

The American Medical Association is urging all state and county medical societies to launch educational programs based on this booklet as well as to inform congressmen of their official support of the bill.

To obtain the booklet, write American Medical Association, 535 North Dearborn Street, Chicago.

PLAN NEW SERVICE—The Board of Governors of Wayne State University, March 16, accepted gifts and grants totaling $288,400 for various purposes. The largest single gift was $132,469 from the McGregor Fund, another from the Ford Foundation was $114,170. Another $19,612 came from the U. S. Public Health Service, National Institutes of Health and also included was $5,000 from the Research Corporation.

A total of $111,969 of the McGregor Fund grant will be used over a three-year period to develop an out-patient service for emotionally disturbed children at Receiving Hospital under the direction of James H. Graves, M.D., of the University's College of Medicine.

MEDICAL MEETINGS U.S.A.

The Forty-Fifth Session of the Trudeau School of Tuberculosis and Other Pulmonary Diseases, June 6-24, Saranac Lake, New York.

Seventh Institute on Science in Law Enforcement, June 20-25, Western Reserve University, Cleveland, Ohio, announced by Oliver Schroeder, Jr., director of Western Reserve University Law Medicine Center.

Two-week Course in Neuromuscular Diseases of Children with Special Emphasis on Cerebral Palsy, June 20 to July 1, Cook County Graduate School of Medicine, Chicago; for information, write to John J. Neal, Registrar, Cook County Graduate School of Medicine, 707 South Wood Street, Chicago.

The Second Annual Oregon Cancer Conference, July 7-8, Portland, Oregon; for information write Roscoe K. Miller, Executive Secretary, Oregon State Medical Society, 2164 S.W. Park Place, Portland 5, Oregon.

Ninth Annual Symposium for General Practitioners on Tuberculosis and other Pulmonary Diseases, July 11-15, Saranac Lake, New York; for information write John N. Hayes, M.D., General Chairman, Box 627, Saranac Lake, New York.

13th Annual Summer Institute on Survey Research Techniques, July 18-August 13, University of Michigan Survey Research Center, Ann Arbor; for information write Survey Research Center, University of Michigan, Ann Arbor.

14th Annual Rocky Mountain Cancer Conference, July 20-21, Denver Hilton Hotel, Denver, Colorado.

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Third International Congress of Physical Medicine, August 21-26, at The Mayflower Hotel, Washington, D. C.; for information write Dorothea C. Augustin, Executive Secretary, Third International Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2.

Annual Otolaryngologic Assembly, September 24-30, University of Illinois College of Medicine Department of Otolaryngology, Chicago, Illinois; for information write direct to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12.

Eighth Congress of the Pan-Pacific Surgical Association, September 27-October 5, Honolulu, Hawaii; for information write F. J. Pinkerton, M.D., Director General of the Pan-Pacific Surgical Association, Suite 230, Alexander Young Building, Honolulu 13, Hawaii.

13th Annual Conference on Electrical Techniques in Medicine and Biology, October 31-November 1-2, Sheraton-Park Hotel, Washington, D. C.

67th Annual Convention of the Association of Military Surgeons of the United States, October 31, November 1-2, Mayflower Hotel, Washington, D. C.

ATTENDS MEETINGS—James M. Robb, M.D., Detroit, attended several society meetings when he recently visited in Florida. He attended sessions of the American Otological Society, American Triological Society, American Bronchoesophagological Society, American Laryngological Association, and the seventh annual Pan-American Congress of Oto-rhino-laryngology and Bronchoesophagology.

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The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

WORTH QUOTING

"The purpose of the medical reader is to broaden his view, not merely to find a simplified set of rules for earning his bread and butter."—JOSEPH GARLAND, M.D., editor, *New England Journal of Medicine.*

HERITABLE DISORDERS OF CONNECTIVE TISSUE. By Victor A. McKusick, M.D., Associate Professor of Medicine, Johns Hopkins University School of Medicine; Physician, Johns Hopkins Hospital; Assistant Professor of Epidemiology, Johns Hopkins University School of Hygiene and Public Health, Baltimore. Second Edition. Illustrated. St. Louis: C. V. Mosby Company, 1960. Price, $12.00.

The reviewer failed to have the opportunity to examine the previous edition (1956) of this interesting and well-written book, but the current edition should be stimulating to many physicians in widely divergent fields, as well as dentists and geneticists. The author points out that the otologist, the ophthalmologist, the internist, and the hematologist see these patients, as well as the more acutely interested generalist, orthopedist, pediatrician and dermatologist, and they view such disorders as the Marfan syndrome, Hurler's disease, and other hereditary connective tissue entities from different diagnostic aspects.

A terminal chapter offers a good discussion of questionably inclusive diseases with such obtruse conditions as Leri's pleonosis among them.

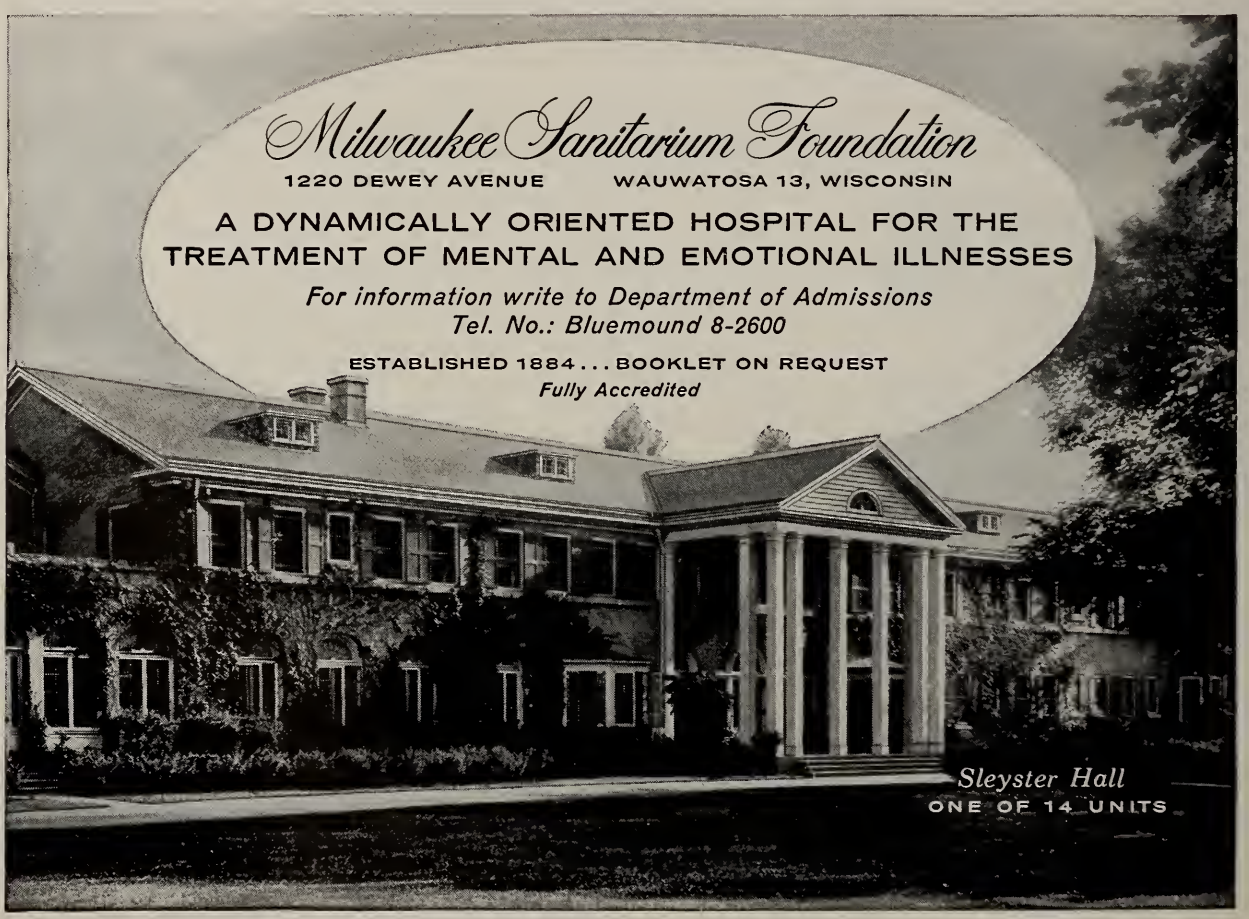
The historical background of the various conditions is given more than usual emphasis, examples being observations as those noted under Osteogenesis Imperfecta, where "an early case was Ivar the Boneless, the master mind behind the Scandinavian invasion of England in the ninth century. He is said to have cartilage where his bones should have been. He could not walk on his legs and was carried into battle on shields."

The text is profusely and very well illustrated, extending through the gamut from autopsy material to x-rays. The chapter on Marfan's syndrome occupies 92 pages and is particularly good. Recommended to the many of us who have seen, but failed to diagnose, or properly advise.

A.A.H.

THE LIFE EXTENSION FOUNDATION GUIDE TO BETTER HEALTH. By Harry J. Johnson, M.F., President, The Life Extension Foundation. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959. Price, $4.95.

This is an interesting book written for general public consumption. It is a guide to basic health care based on certain common sense rules of good health. It is derived from



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the experience and knowledge accumulated by the Life Extension Examiners over a period slightly less than fifty years. It is written in plain spoken non-technical terminology. This group, whose avowed purpose is to "disseminate and apply knowledge of science of disease prevention" has, through its director, succeeded in an interesting presentation of health knowledge for the average reader. Well selected anecdotes are used successfully in putting across the various points. Brief summaries follow each chapter.

The book is well printed and the material is well presented.

R.W.B.

ADVANCES IN GYNECOLOGIC SURGERY. Edited by S. B. Gusberg, M.D.

CESAREAN SECTION. Edited by Edwin J. De Costa, M.D. Paul B. Hoeber, Inc. (Medical Book Department of Harper & Brothers), December, 1959. Price, $18 a year.

The December volume contains two excellent symposia dealing with Cesarean Section and Advances in Gynecologic Surgery, written by today's leading authorities. The indications, techniques, anesthesia, mortality and complications receive thorough discussion. A provocative section is included presenting the legal aspects of Postmortem Section. The experienced gynecologist will find little that is new in the surgical portion of the volume, but a pleasant review of progress in operability. This volume concludes with a complete outline of the newest concepts of the Gynecological Examination.

J.R.P.

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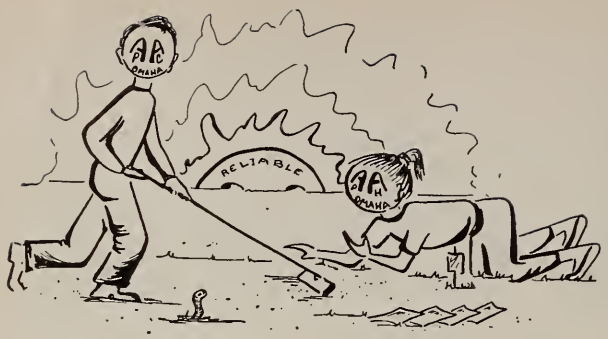

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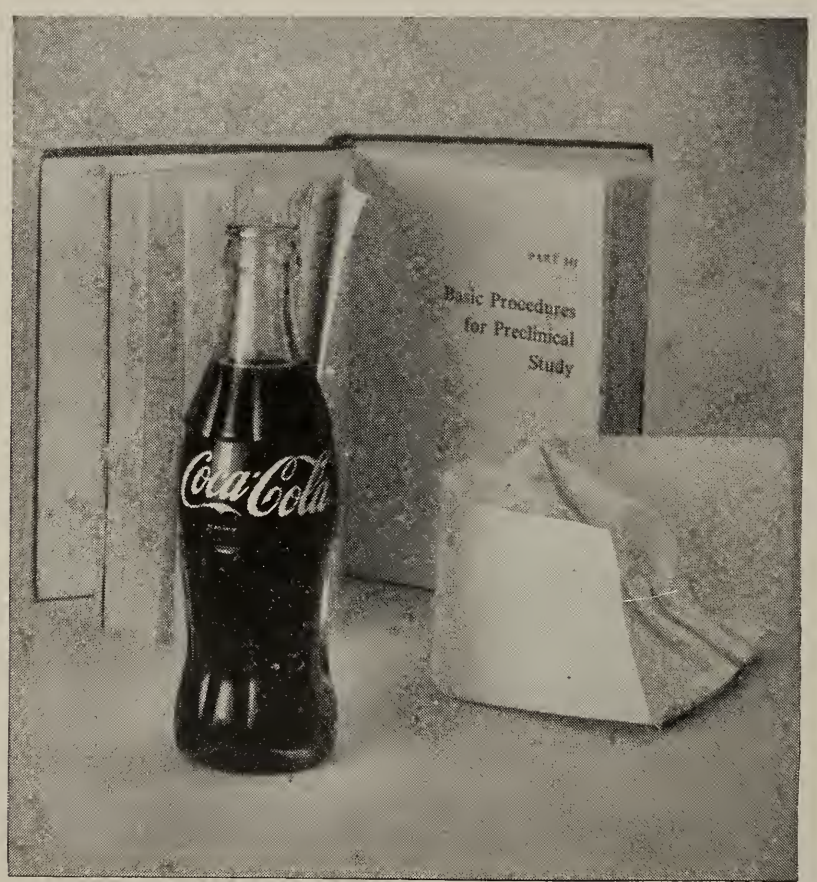

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THE COVER

The JOURNAL each June reports the activities of the Michigan Medical Service, and this year MMS marks its 20th year of service.

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	District		*Term Expires*
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C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
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D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M.D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1963
B. M. HARRIS, M.D.	14th	Ypsilanti	1964
R. J. MASON, M.D.	15th	Birmingham	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1964

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DELEGATES TO A. M. A.

Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Creek	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

*To fill unexpired term of R. W. Shook, M.D., deceased.

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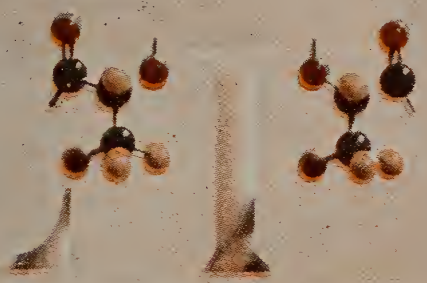

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President's Page

THREE IMAGES

Milton A. Darling

President

Michigan State Medical Society

Recently a metropolitan newspaper commented upon the public's image of the doctor. It pointed out that "just as the earlier image of the doctor (dispensing medicine and good advice in his office, bringing reassurance to an anxious household at a grim hour of night) has been romanticized, so today's caricature of an impersonal healing machine with a built-in cash register is distorted beyond reality."

Perhaps the newspaper was right and today's image is such. But it is equally possible that we are dealing with not one but three images existent in the public mind:

1. Medicine: Viewed by the people as an entity in itself. A highly advanced entity of which, if they get enough, and at the right time, all pains can be overcome and death can be deferred.

2. The individual Doctor of Medicine: Considered by the public generally to be a reasonably nice guy who has been well-trained, talks mainly to other doctors about medicine, is "opinionated" when he talks about subjects other than medicine, and makes a "lot of money."

3. The Medical Profession: The polite name the public uses for the doctor's union epitomized by the AMA—to them a powerful lobby group that needs better public relations.

Split into these three images, it's not so good. But we wouldn't fare too badly PR-wise if we merged these three images into a single image and added one indelible gravure—our primary desire to serve the people in the public interest.

Merged, these could evolve into a single image of a group of nice, well-trained, prosperous, civic-minded people who are controlling a valuable, constantly improving commodity, and protecting its application, so that the public can be better served.

That's a pretty good image.

* * *

WE CAN HAVE THAT IMAGE if each of us, jointly, works as hard to deserve and gain it as do some of our detractors and the socializers who work to divide us.

Medicine—the Doctor of Medicine—and the Medical Profession are one and the same.

Somebody said our public image is our shadow cast in bold relief by the light of public opinion against the background of modern society.

* * *

LET'S BE SURE THAT, individually and collectively, we do our part to keep the light of public opinion white and in steady focus so that our shadow is our true image. Above all, don't buy the bunk that we can escape the light. We're **too** valuable a part of today's civilization to do that.

This adds up to the fact that we must communicate. To repeat: communication is carried out best by the doctor in his office through his word and *deed*.

We've got a job to do. Right now.

State Society Testifies At Insurance Hearings

The support of the Michigan State Medical Society for the requested increase in Michigan Medical Service premiums was voiced at two public hearings held in May by the Insurance Commissioner of Michigan.

"The public interest can best be served by the increase in premium rates requested," stated H. J. Meier, M.D., Chairman of The MSMS Council, at the Detroit hearing. "We are confident that the Insurance Commissioner will find that the new premium rate structure offered by Michigan Medical Service is fair and just," he added.

Doctor Meier explained that premium rates were based upon the previous utilization experience of Blue Shield and projected to cover the new services. These estimates of the premium were too low because utilization of the services increased. More people needed more services than anticipated. Consequently, it is necessary that additional income be obtained by Michigan Medical Service in order to continue to offer the services of Blue Shield."

Doctor Meier added:

* * *

"WE KNOW THAT THE management of Michigan Medical Service has been carried out on an efficient and economical basis.

"We believe that the fees for services paid by Blue Shield are not excessive and that no decrease in payments for individual services to doctors is fair or warranted.

"We believe that the subscribers want and need the services of Michigan Medical Service contracts and are on the whole willing to pay the amount necessary to receive Blue Shield protection.

"We believe that the public is not informed as to the amount that they are paying for these services and are confusing these payments with amounts paid for other services. Only about one-third of their total health care premium goes for medical and surgical services.

"We contend that in the final analysis, it is the public itself which will determine what the premium rate must be, since that rate is based on desired benefits and utilization."

Doctor Meier, J. W. Rice, M.D., chairman of the MSMS Medical Care Insurance Committee, and Donald N. Sweeny, Jr., M.D., of Detroit, who is chairman of the prepaid medical care plans committee of the Wayne County Medical Society, represented the State Society at the hearings. They had been authorized by The MSMS Council.

At Detroit, Doctor Meier read the official statement and Doctor Sweeny, in response to questions raised by other testifiers, described grievance and mediation procedures in operation by the medical profession.

At Grand Rapids, Doctor Rice read a new MSMS statement and Doctor Meier described activities of MSMS in meeting challenges posed by the aged.

THE HEARINGS FOLLOWED A similar pattern. At both Detroit and Grand Rapids, the sessions opened with statements by G. Thomas McKean, M.D., president of Michigan Medical Service, and L. Gordon Goodrich, executive vice-president of MMS. They were followed by Doctor Meier at Detroit and Doctor Rice at Grand Rapids.

Then Michigan Insurance Commissioner Frank Blackford called upon organized groups to present their statements. At both hearings, officials of organized labor opposed the request for the 19½ per cent rate increases. At both hearings, individuals in the audience were permitted the opportunity to make statements and to ask questions.

Some of the questions raised at Detroit by labor representatives and by spokesmen for retired workers were answered in the statement of Doctor Rice at Grand Rapids.

In part, Doctor Rice said:

* * *

"WE ARE CONSIDERING TODAY the basic problem of utilization of services under Blue Shield contracts because this utilization determines the total cost of executing these contracts. There seems to be, even in the minds of those opposing Blue Shield, no doubt that the fees paid to the doctors are fair and reasonable. In view of inflationary costs for physicians' overhead, it could well be said that fees paid by Michigan Medical Service are less than they should be. This is indicated by the fact that whereas in 1938 the physician's fee approximated 31 per cent of the dollar spent for medical care, today the physician's fee represents but 24 per cent of the same dollar. It is a recognized fact that physicians' fees have not increased at a pace comparable with the cost of living index or the cost for other health services.

"It is important to remember that the Blue Shield Plan is a service plan and that only doctors can guarantee their own services. These have been guaranteed through the efforts of the Michigan State Medical Society. At the present time, 80 per cent of the members of the Michigan State Medical Society have agreed to accept the fees paid by Michigan Medical Service as full payment for services rendered under the Michigan Medical Service contracts.

"It is a not-too-well-known fact that of all services rendered to the public, medical services are subject to closest scrutiny and review. Every approved hospital in which these services are rendered has medical audit and tissue committees which review surgery performed and hospital length of stay of all persons receiving care. Blue Shield's continual review of payments reveals any deviations from the number of services normally rendered.

"Despite these protections, it is still possible for misunderstandings to occur between the physician and his patient; therefore, in order that the public may be assured that it has recourse of any question which may arise, the Michigan State Medical Society and each of its 55 component county and district medical societies covering the entire state have established ethics committees, grievance and mediation committees, medical care insurance committees and other state medical society machinery for appeal, to which the patient may go to adjudicate any problem arising in his relationship with the doctor.

* * *

"IN VIEW OF THE RISING number of services performed under the Blue Shield contract, it is difficult to believe that there has been any great scarcity of doctors to render these services. As a matter of fact, it was through the efforts of the medical profession that the supply of doctors in Michigan has increased by nearly one-third in the last twenty years. The Michigan State Medical Society successfully urged the Legislature to increase the teaching facilities and personnel of both the University of Michigan Medical School and Wayne State University College of Medicine. Today the University of Michigan is one of the largest medical schools in the world in number of graduates, and Wayne State's medical school has increased its freshman class by 67 per cent. Here again, the policy of the State Medical Society to help increase the number of doctors in Michigan is clearly evidenced.

"Charges have been made that doctors have increased their fees because the patients had insurance coverage. We have investigated every such charge brought to our attention. The misunderstanding that such increased charges have been made has been based upon the fact that if the patient has an income higher than $7,500 or where the patient has abrogated other terms of his contract, the doctor is entitled to the privilege of charging an equalizing fee. That fee may be commensurate with what that doctor would normally charge if the patient were not insured by Blue Shield. In other words, as is the case with many insurance policies, the policy holder does not understand the limits of his coverage even though these limits may be generous."

MSMS annually provides thousands of medical facts to thousands of people in hundreds of meetings.

HIGHLIGHTS of MSMS Council Meeting

Meeting of April 13, 1960

At this meeting, held in Grand Rapids, sixty-nine items were presented to The Council. Chief in importance were:

- Recommendations of Council Chairman H. J. Meier, M.D., to aid communication between The Council and the MSMS membership and to increase efficiency and conduct of Council meetings. The Council endorsed in principle three of the four recommendations of the Chairman, and commended Doctor Meier for his detailed study and his recommendations to improve liaison and communication within the Michigan State Medical Society.

- Report on 1960 Michigan Clinical Institute. Executive Director Burns reported on the excellent scientific program and a total attendance of 2,671 including 1,261 doctors of medicine. The Council recommended to the 1961 MCI Committee on Arrangements that the Institute next year begin on Wednesday morning and end Friday at 1:00 p.m. A Committee of The Council was authorized to develop recommendations for improving this refresher course through use of more closed circuit television (including wet clinics), scientific panel discussion in depth, inc.

  Milton A. Darling, M.D., Detroit, was appointed Chairman of the 1961 MCI Committee on Arrangements.

- Student AMA. Request for financial assistance to send a delegate and an alternate from each of the two SAMA units in Michigan was approved by The Council.

- MSMS Workshop on Aging at Kellogg Center, April 3. A report on this meeting was reviewed by The Council and detailed discussion was given to the ten suggestions emanating from the Conference, which were approved with instruction that they be implemented and activated wherever possible. Report of this Workshop had been transmitted to program participants, county society officers, MSMS Councilors, members of the MSMS House of Delegates, and AMA Delegates and Alternates from Michigan.

- President Milton A. Darling, M.D. reported that Paul Dudley White, M.D., Boston, will be Biddle Lecturer at the 1960 MSMS Annual Session in Detroit.

- The House of Delegates Press Committee and the Scientific Press Committee for the 1960 MSMS Annual Session were appointed.

- Report was given on "Kellogg Center Health Conference" held April 1-2-3, in East Lansing, called by G. Mennen Williams to develop a liberal health program for possible use by the national Democratic party. In discussion of policy of the Michigan State Medical Society regarding solutions to the health needs of the aged, the following motion was adopted: "That the stated policies of the Michigan State Medical Society, including the ten suggestions emanating from the MSMS April 3 Workshop on Aging, be referred to the MSMS Public Relations Committee for communication to MSMS members and to the public, and that the component societies be asked for their advice and suggestions regarding these items."

- President Elect K. H. Johnson, M.D., presented monthly progress report on the erection of the new MSMS headquarters building.

- MSMS History Questionnaires. It was reported that 4,507 MSMS members have returned their questionnaires.

- The annual reception in honor of members of Michigan Health Officers Association was authorized; this will be held at the Pick-Fort Shelby Hotel, Detroit, on May 11. The Officers and Councilors in the southeastern area of Michigan were requested to act as hosts.

- Legal Counsel's Report. Lester P. Dodd, LL.B. presented correspondence from the Michigan Board of Pharmacy re proposed rule for use of generic name drugs in lieu of brand names with permission of the physician—which matter was deferred to the May 18 Council meeting, in order to gain further information from various interested groups and individuals.

- MSMS plan for retirement trust if the Keogh bill (HR 10) becomes law: the Council Chairman was authorized to appoint a Council Committee on Retirement Trust Plans to study and prepare a suitable plan for offer to MSMS members providing HR 10 is enacted. The Committee personnel: W. M. LeFevre, M.D., Muskegon, Chairman, H. H. Hiscock, M.D., Flint, G. B. Saltonstall, M.D., Charlevoix, D. Bruce Wiley, M.D., Utica, and Legal Counsel Lester P. Dodd, Detroit.

  The Council urged that members be warned of the possible flooding of their mail with retirement trust plan offers, upon passage of HR 10, and that Michigan physicians be advised that the MSMS is developing a sound plan for their consideration. 1. Two improvements in the MSMS group life con-

tract were presented by Mr. Dodd: (a) The policy is altered so that those not in active practice at the time the policy was inaugurated can be paid benefits until April 1, 1959; and (b) the definition of membership is altered so that those who retire before age 70 may continue with the policy until age 70. The necessary papers to include these two improvements in the MSMS group life contract were authorized to be signed by the Secretary. 2. Correspondence from Wayne County Medical Society regarding report on Peoples' Community Hospital Authority situation in the Wayne-Washtenaw area, was referred to President Darling and Legal Counsel Dodd who were authorized to prepare a letter setting forth the legal problems involved in connection with the activities of the Authority.

- Financial Report. The monthly financial report, including a comparison of expenditures versus budget for the first four months of the Society year, was presented by Finance Chairman O. B. McGillicuddy, M.D. Bills payable were presented, approved, and payment was authorized.

- The Wayne County Medical Society was invited to collaborate in the selection of the MSMS field secretary who is to be based in Detroit, and his duties are to be confined mainly to Wayne, Macomb, and Oakland Counties.

- Public Relations Counsel H. W. Brenneman reported on legislation, both Federal and State; plans for the Michigan State Fair exhibit which were approved by The Council; plans for the annual Congressional breakfast in Washington, D. C., May 2-3; on Regional White House Conferences on Aging in various parts of Michigan; and on the advisability of recommending M.D. delegates to the National White House Conference on Aging (January 1961) for submission to Governor Williams; and on the Oakland County Medical Society Awards to radio station WPON and to the Pontiac Press.

- Committee reports: (a) Advisory Committee to Executive Director, meeting of April 13, reported on twelve items discussed. The motion of The Council was: "That The Council commends the Executive Office staff which is working diligently and harmoniously to carry out the instructions of the House of Delegates and of The Council and the purposes of the Society." (b) CDMCIC members—length of terms: the action of The Council was "that the Councilor District Medical Care Insurance Committees shall be reappointed each year, and that not more than two-thirds of each committee shall be new members." (c) Progress report on Michigan Relative Value Study was presented by Luther R. Leader, M.D., Chairman, whose written report stated that the results of the questionnaire survey had been tabulated on IBM cards and that conferences with specialty groups are being scheduled in April and May, every weekend. Doctor Leader was invited to present a verbal report to The Council on May 18. (d) Report from L. W. Gardner, M.D., Detroit, on meeting of Board of Directors of North Central District Blood Bank Clearing House, held March 11 in Chicago, was received with thanks. (e) Report from C. P. Anderson, M.D., Detroit, on meeting of AMA Council's Committee on Disaster Medical Care, held in Chicago, was received with thanks.

- Appointments: (a) The Council Chairman was authorized to appoint a representative to the Michigan State Nurses Association Committee on Nursing in National Defense. (b) The Council Chairman was authorized to appoint representatives to the Michigan Advisory Committee on Psychiatric Nursing of the Michigan State Nurses Association: I. A. LaCore, M.D., Pontiac, Wm. A. Scott, M.D., Kalamazoo. (c) MSMS representatives to the University of Michigan Conference on Aging, Ann Arbor, June 27-29, were selected: A. H. Hirschfeld, M.D., Detroit, H. J. Meier, M.D., Coldwater, A. Hazen Price, M.D., Detroit, F. C. Swartz, M.D., Lansing, R. W. Teed, M.D., Ann Arbor, and H. B. Zemmer, M.D., Lapeer. (d) The Council Chairman appointed the personnel of the Advisory Committee on Vocational Rehabilitation: S. D. Steiner, M.D., Detroit, Chairman, S. E. Andrews, M.D., Kalamazoo, C. W. Sellers, M.D., Detroit, J. W. Rae, M.D., Ann Arbor, and Harvey Hansen, M.D., Battle Creek. (e) Glen E. Millard, M.D., Detroit, was appointed as Vice Chairman of the MSMS Advisory Committee to the Michigan State Medical Assistants Society.

Hospital Services and Costs

More people are entering hospitals now than ever before because more are going to physicians, and physicians are caring for many of these patients in the hospital—where equipment, supplies, and trained teams of workers are centered to aid in diagnosis and treatment and to speed recovery.

There is now an average of 2.2 hospital employees for each patient treated in a general hospital, compared with 1.5 in 1946. Nearly two-thirds of these employees work in the professional service departments, such as nursing service, operating and delivery rooms, x-ray, laboratories, and pharmacy. The others work in the operation and maintenance, food service, and administrative areas.

Payroll accounts for two-thirds of total hospital costs, compared to one-third for industry. But unlike industry, the hospital must be ready to function 24 hours a day, 365 days a year. And the hospital cannot automate, except behind the scenes. Direct patient care is a personal service, to meet the individual human need.

Explains MSMS Presidential Program

At the County Secretaries-Public Relations Seminar, President Darling, in conjunction with President-Elect Kenneth H. Johnson, announced a new five-year MSMS program. Here is a review of Doctor Johnson's remarks delivered on January 31, 1960, in Detroit. A review of Dr. Darling's speech appeared in the April number of THE JOURNAL.

Pioneers of the Future

By Kenneth H. Johnson, M.D., President-Elect
Michigan State Medical Society

The Michigan State Medical Society is ninety-five this year, 1960.

The significance of this lies not in the number, but in the fact that its members have been continuously engaged during this period in efforts to bring good medical care and the finest service possible to the citizens of this State.

Through extensive programs in post-graduate medicine, it has provided the means for all of its 6000 members to avail themselves of up-to-the-minute information in scientific medicine. Through its various committees it has been active in a variety of problems in preventive medicine, public health, mental health, geriatrics, veterans programs, as well as many others. Its concern in the fields of sociological and economic progress are reflected in a strong public relations program with extensive facilities for education to the public; by the development of a program for prepayment of medical care costs; by continuing efforts to secure more information through documentation of public opinion in these problems.

While its members are particularly noticeable by their absence in the field of politics, the Society has maintained an active committee and lent much assistance in efforts to provide factual information to those whose duty it is to legislate.

No Time to Rest

It might be justifiable for the MSMS to rest on its laurels, to point with pride, to be satisfied with the present status. However, it seems that this would be ignoring a great challenge which is presently before our Society. One needs only to follow the daily reports from various news agencies to realize that there are many destructive forces at work in today's world.

A strongly unified, carefully worked out program aimed at holding together the ideals which remain basic in our human family might do much to counteract those forces which tend to split us apart. Our efforts would not be as dramatic as will be those which eventually change the destructive force of the atom to peaceful work, but in the field of human relationships in this State such a program could result in a terrific stimulus toward the "better life."

Thus, in the history of our Society we stand at a most challenging time when next September, we dedicate a new headquarters building for the Michigan State Medical Society.

It will be a beautiful building symbolizing the inherent dignity

and respectful pride of Michigan Medicine The architectural attractiveness of this building will speak for itself but there is a far more potent functional attribute being built into our new headquarters. It has been designed to reflect the idealistic purpose and constructive activity of the Michigan State Medical Society. This was not by mere chance. We intend that this structure shall not be a mausoleum of the past nor a monument to the present, but it shall represent a working and workable function of the future.

Five-year Project

The Council of the M.S.M.S has approved a project whereby the Society will undertake to lead all interested parties in achieving a goal for all the citizens of this State. It has been suggested that this be called "The President's Program" since it is hoped that we may enlist the aid of others at the top level of organizational activity. Very briefly, the project proposes that starting in 1960 with the 95th year of the existence of the State Society and with a functional new building—we will use the next five years, culminating in our 100th anniversary in 1965, to increase life expectancy in Michigan by five more "good" years.

It is most important that we understand that this project is not specifically contemplating adding five years onto the end of the present life span of the inhabitants of the State. What is proposed is that we attempt by a concerted effort, to increase the "good" years of life by five for any or all age groups.

If we use as an example, our perinatal mortality problem and strenuously try to improve it, it is easy to visualize that we have a golden chance to accomplish a tremendous purpose in this one field alone. There are other areas just as significant.

We in the State Society already have the set-up to do this job with little increase in expense to us. We already have the organizational structure to do it. It is a natural, for us. All we need to do is to intensify our efforts, and to coordinate our thinking and activity towards a common goal for the next five years.

There is no question that we shall have the complete cooperation of the Michigan Department of Health. Dr. Heustis, the Commissioner, has already given enthusiastic approval of the idea. We shall have the help of other groups already absorbed in a variety of efforts in this broad field and having a direct relationship to the State Society.

To Enlist All

We propose additionally to enlist the aid of industry, labor, social groups, service organizations, and any other group or individual who is concerned with the best chance for good health and for a happy life for every citizen of this State.

I am sure you understand that this program cannot be implemented until it has been approved by the House of Delegates next September. There is much that must be done in the way of ground work, before we can present the idea to the House of Delegates. We must spell out the details so that the House may evaluate it properly. Thus we hope to secure—

1—The enthusiastic support of each County Medical Society.
2—Make immediate contact with those committees most concerned with this project within the organization of the State Society.
3—Discuss with our professional associates this project.
4—Contact other organizations and individuals to enlist their enthusiastic support.
5—Ascertain what specific support may be obtained in the way of money or services or both.
6—Arrange meetings between our Project Committee and the Presidents of other organizations.
7—Pull all the facts together and spell out a plan to present to the House next September.

We believe this idea will work. We trust in having the enthusiastic support of the entire profession in this united effort toward our always basic goal—the alleviation of suffering and the saving of human life.

Honor Science Fair Winners

In March, the Saginaw County Medical Society honored 20 school pupils having the top exhibits pertaining to medicine entered in the Saginaw County Science Fair. The pupils were guests of the Society at a luncheon at the Bancroft Hotel where they were presented certificates by Society officials.

In Lansing, the Ingham County Medical Society presented the two top Grand Award winners in the junior science fair with $25 savings bonds and each received an engraved plaque.

Two medical-science division winners in Midland received awards from the Midland County Medical Society following the annual Midland Science Fair held in April.

MSMS Members Spoke to Many Service Clubs During MCI

Once again, the 1960 Michigan Clinical Institute provided the opportunity for many MSMS members to appear as guests speakers for meetings of the Detroit metropolitan area service clubs. Several photos are presented here; the complete report of the project appeared in the May number of THE JOURNAL.

A. H. Hirschfeld, M.D. *(right)*, Detroit, addressed the meeting of the Detroit Kiwanis Club No. 1. Also shown at the speakers table are John E. Wells *(left)*, program chairman, and Frank Gofrank *(center)*, club president.

"The main burden of any public relations program necessarily falls on the individual members and they must recognize that a good reputation has to be deserved and earned." —THOMAS G. HIGGINS, president of the New York State Society of Certified Public Accountants.

C. Howard Ross, M.D. *(center)*, of Ann Arbor, spoke about geriatrics at the meeting of the Excalibur Club. F. W. Miller *(right)*, club program chairman, pins a "guest" badge on Doctor Ross while Wallace MacHesney *(left)*, club president, watches.

C. J. Hipps, M.D. *(right)*, Detroit, used slides to help illustrate his address to the Civitan Club. Shown with him is John Chase, club vice president.

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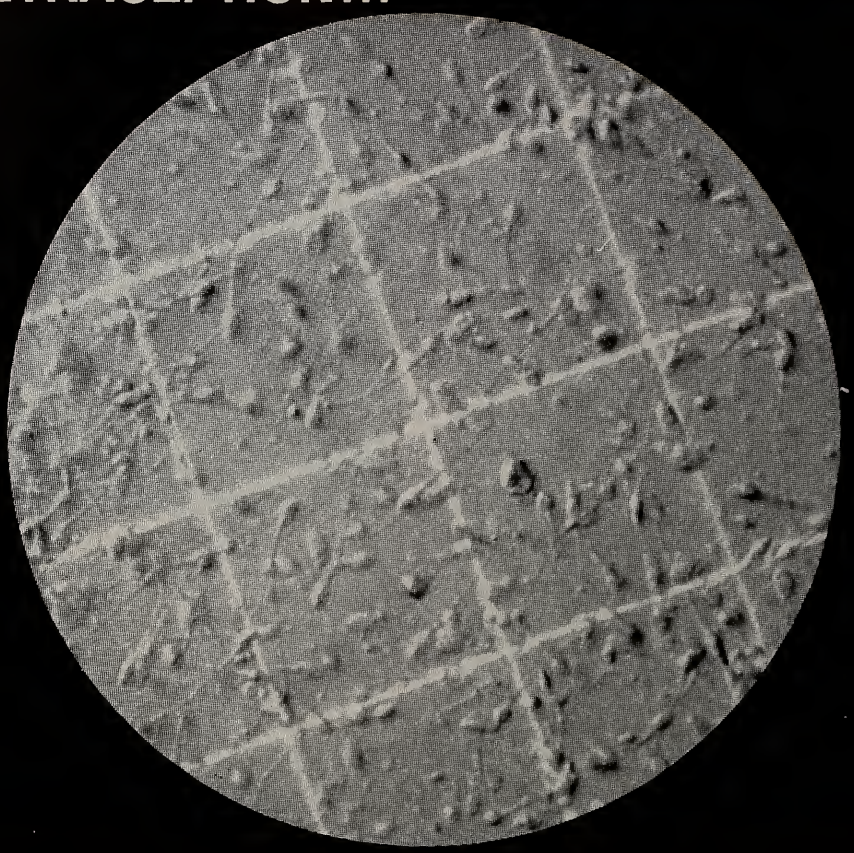

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Manufacturers to Study Use and Cost of Drugs

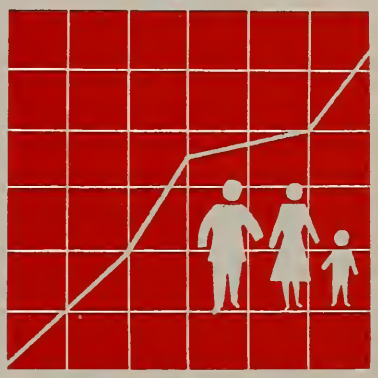
The Pharmaceutical Manufacturers Association have started a full-scale study of the impact of medicine costs on the American public. This is part of a major public service program of the association, according to its president, Austin Smith, M.D.

Doctor Smith said the full resources of the association will be available for a broad study which will "bring together in one place information which has never been gathered in this country by any source, public or private."

Doctor Smith said the PMA will determine:

1. The extent of use of prescription drugs by the general population.
2. The segments of the population using drugs and under what circumstances.
3. The ways in which drugs are being provided in medical care programs.
4. Whether needed drugs are not available to patients.
5. Which elements, if any, of the population may be deprived of necessary drug therapy and the reasons for such deprivation if it exists.
6. The true relationship of prescription drugs to medical care needs and costs.

Helping to provide leadership for this study is the new association board chairman, Harry J. Loynd, president of Parke, Davis & Co. New chairman-elect of the group for 1961-62 is Eugene N. Beesley, president of Eli Lilly and Company, who spoke at the 1960 MCI in Detroit.



Report Half of Aged Have Health Insurance

The number of senior citizens covered by health insurance has increased from one out of four back in 1952 to a current one out of two.

This report, showing that 49 per cent of all Americans 65 and over had insurance at the beginning of 1960, is made by the Health Insurance Association of America.

Of the 15.7 million persons in this age group, an estimated 7.7 million had health insurance, the Association said in issuing the first analysis made on a nationwide basis since early 1958 of the extent of health insurance coverage among "senior citizens."

The report was based on coverage trends revealed in government and private surveys taken during the last decade and on developments in the health insurance business.

Because of accelerated activity by insuring organizations in this area, the growth of health insurance protection among persons sixty-five and older during the past eight years has been at a more rapid pace than for the population as a whole, said the Association, which is composed of 270 insurance companies.

In addition to the 49 per cent of the sixty-five-and-over who now have health insurance, the Association said, another 15 per cent, or 2.4 million persons, are officially classified as indigent, and provision is

made for their medical needs through Old Age Assistance, supported by Federal State matching fund programs. Such persons also receive money for food, housing, clothing and other needs.

Since 1952, the growth in coverage for the total population was from nearly six out of every ten persons to a little more than seven out of ten.

Indiana Study Shows Most Hospital Cases for Surgery

"A study of Indiana hospital records gives little support to the criticism that great numbers of patients are unnecessarily admitted to general hospitals or could be treated less expensively elsewhere."

That statement is made by George Bugbee, president, Health Insurance Foundation, following a study of the 1956 records of the Blue Cross Hospital Service of Indiana.

Mr. Bugbee pointed out that almost two-thirds of the cost of hospital care in the study group went for surgery, including obstetrical care—services in which hospitaliation is clearly indicated.

The study also showed that hospital costs vary according to what ails the patient, and while the average cost per admission in one study was $166, the range was from a low of $54 for diseases of the upper respiratory system to $503 for digestive cancer.

Among the major findings of the study were these.

1. Diseases of the digestive system accounted for a larger share of total hospital days than any other category—145.2 per 1,000 insured individuals a year, or one-sixth of the total days for all admissions.
2. Of all the major diagnostic categories analyzed, cancer was responsible for the longest average hospital stay, 15.5 days. Cancer patients also averaged the highest bills per admission, $387.
3. One-fifth of all hospital admissions were for obstetrical care, with an average stay per case of 4.6 days and a total hospital bill per admission $119.

According to this Indiana study by the Health Insurance Foundation, there were 115.5 hospital admissions per 1,000 in the covered population for all causes, and the average length of stay per admission was 7.3 days. Total hospital use, the product of the two factors, amounted to 838.8 days per 1,000 persons annually.

Hospital bills submitted to Blue Cross averaged $22.91 a day for room rate and other charges, or $166 for each hospital stay. These bills, when spread over the entire insured population (whether or not they were hospitalized) came to $19.22 per person per year, which corresponds closely to the average annual expenditure on hospital services of $22 in 1957-58 as reported by H.I.F. in February of this year.

Although the study was limited to Indiana, Mr. Bugbee stated, it has nationwide implications, particularly since hospital costs in Indiana appear to be close to national averages.

Health Insurance Benefits In State Up in 1959

Health insurance benefit payments by insurance companies to the people of Michigan climbed to a new high during 1959. In the period from January 1 through December 31, 1959, an estimated $157 million was paid out to help cover the cost of doctor and hospital bills and to replace income lost through sickness or disability.

This represented a gain of 2.2 per cent over the 1958 figure of $153 million, and is based on reports from insurance companies doing business in the state.

The rise in benefit payments in Michigan was reflected in the figures for the nation as a whole, the national Health Insurance Institute points out. Persons with health insurance received a total of more than $2.9 billion in benefits from their insurance company policies in 1959, up 9.6 per cent over the previous year's high of more than $2.6 billion.

Explains Armed Forces Need for Physicians

The Armed Forces continue to require the services of most physicians liable for military service under the Universal Military Training and Service Act.

Lt. Gen. Lewis B. Hershey, Director of Selective Service, issued this reminder to physicians when it became apparent recently that the Armed Forces would not call to active duty a small number of physicians in a few specialties who had been deferred for residency training under the Armed Forces Reserve Medical Officer Commissioning and Residency Consideration Program.

All reserve officers deferred for residency in most specialties will be called.

Shortages exist and will continue in certain specialties and in the group of officers who have not specialized.

The Selective Service Director urged physicians not

(Turn to Page 876)

Schaffer's Diseases of the Newborn

Here is richly detailed and immediately usable help on the recognition and management of diseases, disorders and anomalies of the newborn child. Dr. Schaffer pays full attention to *both common and uncommon* diseases. The book's 358 vivid illustrations make up a virtual atlas of neonatal pathology.

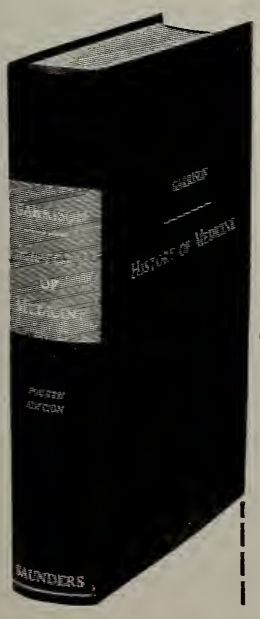
The physical examination which should be performed on all newborn children is described in meticulous detail. Special attention is given to signs and symptoms, definite or questionable, which may indicate the presence of disease. Common and puzzling signs such as dyspnea, cyanosis, jaundice and diarrhea are thoroughly discussed with thoughtful investigation of differentiating features. Case histories are frequently cited.

Sound advice is given on etiology, pathology, clinical course, diagnosis, treatment and prognosis of such disorders as: atelectasis, congenital diaphragmatic hernia, aortic stenosis, meconium ileus, omphalocele, undescended testicle, acute pyelonephritis, etc. Inborn errors of metabolism, disorders of the blood, the eye, the skin, and the endocrine system are all well covered.

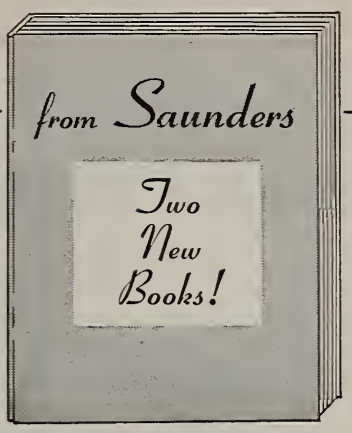
By Alexander J. Schaffer, M.D., Associate Professor of Pediatrics, The Johns Hopkins Medical School and Pediatrician to The Johns Hopkins Hospital. With the assistance of Milton Markowitz, M.D. About 1078 pages, 6½" x 10", with 358 illustrations, some in color. About $20.00. *New—Ready in June!*

Special Reprint!—Garrison's History of Medicine

You'll find this classic work an intriguing addition to your library. A special limited edition of the *Fourth Edition (published in 1929)* has just come off press. Although the book has been out of print for nearly 15 years, copies of it have constantly been sought after. *The Journal of the American Medical Association* said of it: "Compact and crowded with facts, but pleasant reading throughout, clear and concise, rich in happy phrases, apt quotations, with occasional flashes of humor, and many historical and cultural allusions."



By the late Fielding H. Garrison, M.D., formerly Lieutenant-Colonel, Medical Corps, U.S. Army, Surgeon General's Office, Washington, D.C. 996 pages, 6" x 9", with numerous portraits, many rare. $13.50. *Reprint of Fourth Edition!*



Moyer & Fuchs—EDEMA: Mechanisms & Management

Here is an up-to-the-minute and practical guide to what you *can* and *should* do for your patients with edema. It presents all the useful information to come out of the Symposium on Salt and Water Retention held at Hahnemann Medical College this past December.

123 authorities tell you what they have learned about the mechanisms and management of edema. Immediately usable help is given on the treatment of edema associated with such problems as: hypertension, pregnancy and premenstrual tension, renal disorders, liver disease, and congestive heart failure.

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Edited by John H. Moyer, M.D., Professor and Chairman of the Department of Medicine; and Morton Fuchs, M.D., Assistant Professor of Medicine, Hahnemann Medical College and Hospital. 883 pages, 6½" x 9¾", with 286 illustrations. About $15.00. *New—Just Ready!*

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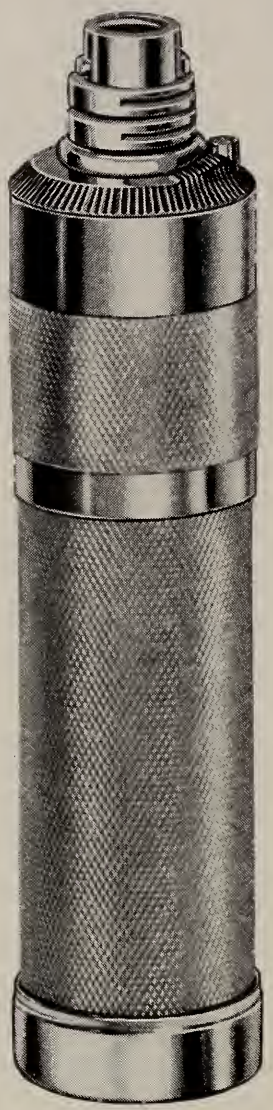

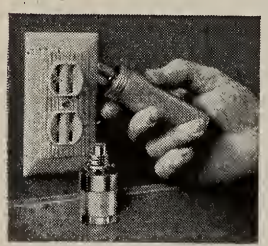

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Explains Armed Forces Need for Physicians

(Continued from Page 874)

to draw erroneous conclusions concerning the need of the Armed Forces for their services. If a substantial number of physicians, basing their decision on knowledge that a few reserve medical officers in a few specialties are not being called to active duty after residency, conclude they are not needed, existing shortages in the Armed Forces will be aggravated.

The Department of Defense has found it unnecessary to requisition physicians through the Selective Service System since early in 1957. This has been so only because sufficient numbers of physicians sought reserve commissions and thus made themselves available for call to active duty.

There is a continuing need for applications for the residency program, as well as for reserve commissions and active duty at the conclusion of internship, General Hershey stressed.

There are temporary surpluses in some specialties in the residency program. Estimates of needs must be made four or five years ahead. Other factors are revisions in Armed Forces strength, redistribution of troops, reorganization of the hospital system, specialists choosing a military career, and voluntary extension of duty tours by reserve officers.

New Connecticut Plan Popular with Aged

One phase of the problem of assuring medical attention for the aged—low-cost prepaid medical coverage—is being successfully attacked by Connecticut Medical Service, that state's Blue Shield Plan, in cooperation with the Connecticut State Medical Society.

It is a voluntary, prepaid medical policy, known as the Special Individual Contract, available regardless of age, occupation, or condition of health. Within three months after it was launched, on April 1, 1959, some 23,000 members were enrolled, 42.6 per cent of whom were 65 years of age or older, and hundreds of new applications poured in each week thereafter, according to the physicians.

The contract, which is continuously available, carries benefits identical to the C.M.S. Preferred Contract—for members not eligible on a group enrollment basis—except that maternity benefits are excluded.

Say you saw it in the Journal of the Michigan State Medical Society

Hematuria—With Special Reference to Asymptomatic Microhematuria

Laurence F. Greene, M.D.
Rochester, Minnesota

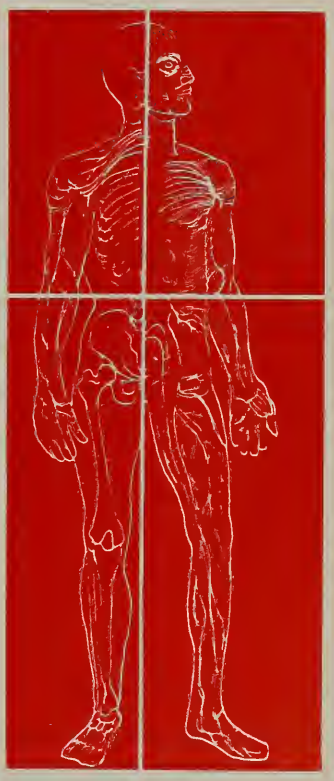
"Always he kept asking
Where did that blood come from?"
—*Ossawatomie* . . . Carl Sandburg.

Gross Hematuria

Hematuria, although only a symptom, is indeed a significant symptom. There is an ancient Egyptian curse that says "May your blood turn to water." This imprecation would be equally effective if reversed.

A discussion of hematuria frequently begins with a scathing criticism of physicians who neglect to investigate every case of hematuria thoroughly. It is probable that the overwhelming majority of physicians are alert to this problem. Although patients who have extensive advanced lesions of the genito-urinary tract have been treated with drugs for months or years, too often it is the patient who refused the advice of his physicians and insisted that symptomatic treatment by given. Only an insignificant minority of physicians attempt to treat hematuria by medications. To this small minority of physicians, I earnestly suggest the reading of Carl Sandburg's somber poem "Ossawatomie," an excerpt from which heads this paper.

In the study of each patient with gross hematuria, a careful history is both desirable and necessary. However, it must be borne in mind that the history may be of little help, or even misleading, in regard to diagnosis. Only a few generalizations can be made in respect to the history. Thus a patient who complains of hematuria but no other urinary symptoms *probably* has a vesical neoplasm. Likewise, a patient who has noted moderate to severe flank pain and hematuria *probably* has a renal neoplasm. Finally, a patient who has scanty bleeding and severe colic is *probably* suffering from a stone. These probabilities require substantiation from urologic investigation. Furthermore, some physicians attempt to obtain diagnostic information from the fact that hematuria is initial, total or terminal in men. Here again, such observations represent probabilities. It is probable that if the bleeding is initial, which indicates that during the act of micturition the urine is first bloody but clears as micturition continues, the bleeding is prostatic in origin. However, it is possible for a vesical neoplasm to ooze blood which is washed out at the



Read at the meeting of the Wayne County Medical Society and the Detroit Urologic Society, Detroit, Michigan, April 13, 1959.
From the Mayo Clinic and Mayo Foundation, Rochester, Minnesota.

start of urination and thereby to cause initial hematuria. Similarly, one might expect that total hematuria, in which case the urine is bloody throughout micturition, represents a renal or vesical lesion. This

TABLE I. SOURCE AND CAUSE OF GROSS HEMATURIA IN 5965 CASES*

Source	Cases, Per Cent	Cause	Cases, Per Cent
Kidney	42.7	Inflammation	31.3
Bladder	29.6	Neoplasia	27.9
Prostate	14.1	Foreign body	20.0
Ureter	8.7	Tuberculosis	9.4
Urethra	4.6	Trauma	3.7
		Other	7.4

*After Doss.

is likely, but it may represent bleeding from the prostate with the blood passing back into the bladder and mixing with the urine. Finally, terminal hematuria, a condition in which blood appears only toward the end of urination, is usually due to an enlarged or inflamed prostate. On the other hand, it may result from pinching of a papilloma of the bladder when the bladder collapses.

Similarly, the physical examination, by virtue of absence of findings, may be misleading. Thus a diagnosis of renal neoplasm with probable metastasis can be made readily in the case of a cachectic patient who has renal pain, a hard mass, gross hematuria and an enlarged supraclavicular node. However, such gross findings will be encountered only rarely. Unless a neoplasm is of fair size, located in the lower pole and the patient thin, it is probable that it will not be detected by physical examination. A carcinoma of the renal pelvis may cause death and not be palpable. Furthermore, one cannot usually distinguish between a renal neoplasm, cyst, pyonephrosis and hydronephrosis by means of physical examination. The deficiencies of the history and physical examination, therefore, indicate the need for urologic investigation of all cases of gross hematuria. The form that such investigation will take will consist of, at a minimum, excretory urography and cystoscopy. More complicated cases may require other urologic diagnostic procedures.

Presentation of an imposing list of causes for gross hematuria is of doubtful value. It is sufficient to list the source and cause for gross hematuria in a large series of cases (Table I).

Extrarenal diseases may in some instances result in alteration in the appearance of the urine (Table II). The untrained eye of the patient may cause misinterpretation of the altered appearance and the false conclusion that hematuria is present. The absence of blood in the urinary sediment studied by microscopic means will distinguish these diseases from hematuria.

Emergency Management of Severe Hematuria.—What steps should be taken when one is confronted with a patient who is experiencing severe hematuria and frequency if urologic help is not available at the moment? Bleeding of such degree is usually caused by lesions in the bladder or prostate; renal lesions are less likely to produce such severe hematuria. First,

TABLE II. DISEASES IN WHICH APPEARANCE OF URINE MAY SUGGEST GROSS HEMATURIA

Disease	Responsible Substance
Porphyria	Uroporphyrin
Paroxysmal hemoglobinuria	Oxyhemoglobin, methemoglobin
Jaundice (obstructive or hepatocellular)	Bilirubin
Alkaptonuria	Homogentisic acid

it is necessary to reassure the patient that he will not bleed to death. Second, it is necessary to remove the blood clots from the bladder. This can usually be readily accomplished with a 20 or 22 F. catheter and an aseptic syringe. At times it is almost miraculous how the simple removal of clots will cause an immediate cessation of bleeding. It is wise to leave the catheter indwelling until urologic aid is available.

Asymptomatic Microhematuria

Urologists, in a consulting capacity, may be confronted with the problem of asymptomatic microhematuria several times daily. It is a simple matter to suggest urologic investigation, but such investigation, at a minimum, will include excretory urography, cystoscopy and possibly retrograde pyelography. The urologist has the clinical impression, however, on the basis of previous experience, that complete urologic investigation in the great majority of cases of this type fails to disclose the source or significance of the microhematuria.

It is equally simple, on the other hand, to advise that the microhematuria be disregarded. The urologist, however, will be disturbed by the recollection of a patient in whom urologic investigation, performed because of microhematuria, resulted in discovery of a neoplasm in the urinary tract.

A study was undertaken, therefore, to determine the incidence, nature and significance of urologic lesions associated with asymptomatic microhematuria. Also sought were criteria that would enable the urologist to decide whether or not urologic investigation is

necessary, and if so, the form such investigation should take.

The histories of 500 consecutive patients who had undergone urologic investigation because of asymptomatic microhematuria were reviewed. In each case urologic investigation consisted of excretory urography, cystoscopy and, when indicated, retrograde pyelography. In all patients microhematuria was the only abnormal finding on urinalysis; none of the patients had past or present urinary symptoms, and neither history nor physical examination indicated

TABLE III. INCIDENCE OF MICROHEMATURIA ACCORDING TO AGE AND SEX IN 500 PATIENTS

Age, Years	Total		Male		Female	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Less than 30	11	2.2	10	3.6	1	0.5
30-39	51	10.2	28	10.0	23	10.4
40-49	134	26.8	70	25.1	64	29.0
50-59	194	38.8	102	36.6	92	41.6
60-69	98	19.6	61	21.9	37	16.7
70 or more	12	2.4	8	2.8	4	1.8
Total	500	100.0	279	100.0	221	100.0
	Years					
Youngest	19		19		26	
Oldest	78		76		78	
Mean	52		52		52	

the necessity of urologic investigation. Such an investigation, in most instances, was undertaken only if microhematuria had been noted to persist in a second urinalysis. In men, voided specimens of urine were examined; in women, urine obtained by catheterization was employed for the second urinalysis.

At the Mayo Clinic microhematuria is classified in four grades. Microhematuria of grade 1 exists when one to eight erythrocytes are found per high-power microscopic field of a centrifuged specimen; grade 2, eight to thirty cells; grade 3, thirty cells to three fourths of the field; and grade 4, when the entire field is packed with erythrocytes.

Results

The 500 patients consisted of 279 men and 221 women. The incidence of microhematuria, according to decade of life, is shown in Table III. It will be noted that a greater number of older patients (fifty years or more) than of younger patients underwent urologic investigation because of microhematuria; this was due probably to the greater incidence of microhematuria among older patients and to selection of patients for study by the urologist.

Table IV, which shows the incidence of urologic lesions according to age and sex, indicates that increase of incidence is proportionate to increase in age; furthermore, lesions were found more commonly in men than in women.

In Table V the incidence of microhematuria according to grades is shown; in addition, the incidence of urologic lesions according to grade of microhematuria is noted. It may be observed that the incidence of urologic lesions is approximately the same in cases of microhematuria of grades 1, 2 and 3. The number of cases of microhematuria of grade 4 probably is too small to have statistical significance.

TABLE IV. UROLOGIC LESIONS IN RELATION TO AGE AND SEX

Age (years) and Sex	Total Patients by Age	Urologic Lesions	
		No.	Per Cent
Less than 30	11	3	27.3
30-39	51	21	41.2
40-49	134	62	46.3
50-59	194	112	57.7
60-69	98	70	71.4
70 or more	12	10	83.3
Total	500	278	55.6
	By Sex		
Male	279	174	62.4
Female	221	104	47.1
Total	500	278	55.6

The nature and incidence of the urologic lesions are shown in Table VI; in addition, this table sets forth the incidence of the urologic lesions according to grade of microhematuria. The table shows that about 56 per cent of patients with asymptomatic microhematuria have urologic lesions.

TABLE V. INCIDENCE OF MICROHEMATURIA AND UROLOGIC LESIONS ACCORDING TO GRADE

Hematuria, Grade	Total Patients		Urologic Lesions	
	No.	Per Cent*	No.	Per Cent†
1	133	26.6	73	54.9
2	191	38.2	101	52.9
3	169	33.8	98	58.0
4	7	1.4	6	85.7
Total	500	100.0	278	55.6

*Based on 500 patients.
†Based on total cases in corresponding grade.

Evaluation of Data

The observation that more than half of the patients had urologic lesions would appear to indicate that asymptomatic microhematuria is an omnious finding, and that urologic investigation of such patients is not only advisable but necessary. However, closer study of Table VI indicates that this simple answer may be misleading. This table indicates that there is a striking

difference in the significance of the lesions noted, ranging from renal neoplasm to verumontanitis. Certainly, urologic investigation, initiated because of microhematuria, which leads to detection of a renal neoplasm is highly desirable. It may be questioned, however, whether complete urologic investigation is indicated in order to inform a man sixty years old, who does not have urinary symptoms, that he has verumontanitis.

TABLE VI. NATURE AND INCIDENCE OF UROLOGIC LESIONS AND INCIDENCE ACCORDING TO GRADE OF MICROHEMATURIA

Urologic Lesion*	Patients		Microhematuria, Grade			
	No.	Per Cent†	1	2	3	4
	278	55.6	Patients			
Asymptomatic prostatic hyperplasia	118	23.6	22	51	43	2
Urethritis	106	21.2	35	32	38	1
Renal calculus	17	3.4	2	6	6	3
Cystitis	17	3.4	4	6	7	
Urethrotrigonitis	16	3.2	4	7	5	
Vesical neoplasm	9	1.8	1	2	6	
Prostatic calculi	9	1.8	1	3	5	
Renal cyst	6	1.2	4		2	
Urethral stricture	5	1.0	2	1	2	
Hydronephrosis	3	0.6		2	1	
Renal neoplasm	2	0.4	1	1		
Ureteral calculus	2	0.4	1	1		
Ureterocele	2	0.4	1	1		
Urethral polyps	2	0.4	1	1		
Occlusion of renal pedicle?	1	0.2			1	
Pyelonephritis	1	0.2		1		
Essential hematuria	1	0.2				1
Horseshoe kidney	1	0.2	1			
Renal agenesia	1	0.2		1		
Ureterectasis	1	0.2		1		
Pinpoint ureteral meatus	1	0.2		1		
Vesical diverticulum	1	0.2			1	
Verumontanitis	1	0.2			1	
Indeterminate	4	0.8		1	3	

*Since a patient may have more than one lesion, the total number of lesions will be greater than the total number of patients with lesions.
†Based on 500 cases.

It was thought that division of the lesions into categories based on their significance would help clarify this problem. The following three categories were selected: (1) significant lesions, (2) moderately significant lesions, and (3) insignificant lesions. A significant lesion was defined as one that is a clear, immediate threat to the patient's life or continued well-being or that requires major surgical procedures or that significantly alters the patient's way of life. A neoplasm, for example, clearly fits into this category. A moderately significant lesion was defined as one that causes slight, if any, alteration in the patient's way of life, requires minor or no treatment and appears to be a remote threat, if any, to the patient's continued well-being. A minute calculus located in a minor calyx of a kidney would be included in this category. An insignificant lesion was defined as one that does not require treatment, does not alter the patient's way of life and does not appear to be a threat to the patient's continued well-being. A mild degree of asymptomatic prostatic hyperplasia not associated with other evidence of a pathologic nature would be included in this last category.

TABLE VII. NATURE AND INCIDENCE OF SIGNIFICANT LESIONS AND INCIDENCE ACCORDING TO GRADE OF MICROHEMATURIA

Urologic Lesion	Patients		Hematuria, Grade			
	No.	Per Cent*	1	2	3	4
	24	4.8	Patients			
Vesical neoplasm	9	1.8	1	2	6	
Renal calculus	4	0.8		2	2	
Renal cyst	4	0.8	3		1	
Renal neoplasm	2	0.4	1	1		
Ureteral calculus	2	0.4	1	1		
Hydronephrosis	1	0.2		1		
Occlusion of renal pedicle?	1	0.2			1	
Urethral stricture	1	0.2		1		

*Based on 500 cases.

The lesions that were considered significant are shown in Table VII. It will be noted that a significant lesion was found in about 5 per cent of patients who had asymptomatic microhematuria. Neoplasms were discovered in about 2 per cent of the cases. The vesical neoplasms varied from small to extensive and, with a single exception, were papillary transitional-cell epitheliomas, grade 1 (Broders). An infiltrating transitional-cell epithelioma of grade 3 was observed in one instance. The renal neoplasms consisted of hypernephroma and a transitional-cell epithelioma of the renal pelvis. Every patient who had a significant lesion of the urinary tract was fifty years old or more; this observation will be referred to later.

A lesion of moderate significance was noted in about 5 per cent of patients (Table VIII), and an insignificant lesion was observed in about 45 per cent (Table IX). In the latter group, in particular, it was difficult to establish a relationship between the lesion and microhematuria. Thus, it could not be stated with certainty that mild prostatic hyperplasia, for example, was responsible for microhematuria. Finally, a lesion could not be found in about 44 per cent of patients with asymptomatic microhematuria (Table X).

TABLE VIII. NATURE AND INCIDENCE OF MODERATELY SIGNIFICANT LESIONS AND INCIDENCE ACCORDING TO GRADE OF MICROHEMATURIA

Urologic Lesion*	Patients		Hematuria, Grade			
	No.	Per Cent†	1	2	3	4
	23	4.6	Patients			
Renal calculus	13	2.6	2	4	4	3
Urethral stricture	3	0.6	1		2	
Renal cyst	2	0.4	1		1	
Hydronephrosis	2	0.4		1	1	
Pyelonephritis	1	0.2		1		
Essential hematuria	1	0.2				1
Horseshoe kidney	1	0.2	1			
Renal agenesia	1	0.2		1		
Ureterectasis	1	0.2		1		
Pinpoint ureteral meatus	1	0.2		1		
Vesical diverticulum	1	0.2			1	

*Since a patient may have more than one lesion, the total number of lesions will be greater than the total number of patients with lesions.
†Based on 500 cases.

An effort was made to determine whether the incidence of significant urologic lesions was greater in cases in which microhematuria was of higher grade, that is, grade 3 or 4, than in cases in which it was of grade 1 or 2. If this hypothesis could be established, it might indicate that urologic investigation could be confined to patients who have higher grades of microhematuria. This hypothesis could not be established. Study of Table V indicates that the incidence of lesions is essentially the same regardless of whether microhematuria is graded 1 or 2 or 3 (the number of patients who had hematuria of grade 4 probably is too small to have statistical significance). Of more importance is the fact that the incidence of significant lesions was not greater when hematuria was of higher grade than when it was of lower grade.

TABLE IX. NATURE AND INCIDENCE OF INSIGNIFICANT LESIONS AND INCIDENCE ACCORDING TO GRADE OF MICROHEMATURIA

	Patients		Hematuria, Grade			
	No.	Per Cent†	1	2	3	4
Urologic Lesions*	227	45.4	Patients			
Asymptomatic prostatic hyperplasia	118	23.6	22	51	43	2
Urethritis	106	21.2	35	32	38	1
Cystitis	17	3.4	4	6	7	
Urethrotrigonitis	16	3.2	4	7	5	
Prostatic calculi	9	1.8	1	3	5	
Ureterocele	2	0.4	1	1		
Urethral polyps	2	0.4	1	1		
Urethral stricture	1	0.2	1			
Verumontanitis	1	0.2			1	

*Since a patient may have more than one lesion, the total number of lesions will be greater than the total number of patients with lesions.
†Based on 500 cases.

Comment

Urologic investigation of 500 patients with asymptomatic microhematuria disclosed a significant or moderately significant lesion in about 10 per cent of patients; the lesion was neoplastic in about 2 per cent of patients. The remaining 90 per cent of patients fell into approximately equal groups, in which either the lesion noted was insignificant or a lesion could not be detected.

TABLE X. OCCURRENCE OF MICROHEMATURIA IN PATIENTS WITHOUT UROLOGIC LESIONS ACCORDING TO GRADE OF MICROHEMATURIA

Microhematuria, Grade	Patients
1	60
2	90
3	71
4	1
Total	222*

*44.4 per cent of 500 patients.

The study failed to disclose any factors that will permit the urologist to distinguish microhematuria of significant origin from that of insignificant origin; this can be accomplished by urologic investigation only. The grade of microhematuria is not decisive. Microhematuria of grade 1 or 2 was noted slightly more frequently than was microhematuria of grade 3 or 4 among patients with significant lesions. The most malignant lesion in the entire series, an extensive hypernephroma, was found in a patient who had microhematuria of grade 1.

My colleagues and I believe that complete urologic investigation should be performed in all cases of asymptomatic microhematuria. This conclusion is based largely on the fact that a lesion of varying significance will be discovered in about 10 per cent of cases. Furthermore, such investigation will permit the physician to reassure the remaining 90 per cent of patients that the cause of the microhematuria either is not significant or cannot be detected. It is not difficult to recall numerous other diagnostic procedures that yield a smaller percentage of positive results.

If the urologist desires to carry out urologic investigation in selected cases, there appears to be an alternate, although less acceptable, plan for the study of patients with asymptomatic microhematuria. It was noted in this study that each patient who had a significant urologic lesion was fifty years old or more. Urologic investigation, according to this alternate plan, would consist of excretory urography and cystoscopy if the patient is fifty years of age or older, and a plain roentgenogram of the urinary tract, plus cystoscopy, if the patient is younger than fifty years. The alternate plan would, according to analysis of the statistics given in this paper, permit the detection of all significant urologic lesions, more than three fourths of the lesions considered to be moderately significant, and all lesions that are considered insignificant.

Persistence of microhematuria sometimes is employed as a basis for determination of the necessity of urologic investigation. When this method is used the patient submits specimens of urine for analysis weekly or biweekly for four to six weeks. If microhematuria is noted in a majority of specimens, urologic investigation is instituted. This plan of action is based on the supposition that microhematuria is more likely to be persistent when the lesion is significant than when the lesion is of lesser significance, or when a lesion cannot be detected. This supposition appears logical, but has not been established as fact.

Several possible causes for microhematuria were noted in about 41 per cent of patients in the present study in whom urologic investigation yielded normal findings: (1) normal urine may contain erythrocytes; (2) it is probable that in some instances erythrocyturia results from trauma incidental to physical examination; and (3) erythrocyturia may result from subclinical urologic or other disease of the kidneys.

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New Film Available to Professional Audiences

"The Cancer Detection Examination," a black-and-white 16 mm. film, produced by Eli Lilly and Company, is now available for showing by professional groups. The film, which is forty-six minutes in length, demonstrates the presymptomatic detection of cancer. Using procedures developed by the Strang Cancer Detection Clinic, New York, Emerson Day, M.D., demonstrates and narrates an examination useful in the office of the private physician. An illustrated booklet covering the same material is available for distribution at time of showing.

For booking, write to Eli Lilly and Company, Indianapolis, Indiana, requesting the film thirty days before desired showing date.

Acute Pelvic Abscess in Duplication of the Sigmoid and Uterus

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THE CLINICAL features and management of the case to be presented, seem worthy of comment because of a rare combination of congenital anomalies as a cause of pelvic abscess.

Duplications of the alimentary tract may occur at any point between the tongue and anus.[1-3] However, sigmoid colon duplications appear in the larger series reported, with marked infrequency. Sigmoid duplication in conjunction with double uterus is exceedingly rare.[1-3]

That these duplicative anomalies appear to be more frequently recognized and properly managed by the surgeon without specific pediatric surgical training is evident; ascribable, no doubt, to the teaching influence of the surgical department of Childrens Hospital of Boston, Massachusetts.[2-4]

In 1934, Ladd and Gross[3] reviewed 121,515 pediatric hospital admissions in which 162 instances of imperforate anus and associated anomalies were encountered. Listed among the associated anomalies, duplication of the uterus was noted in a single instance. In 1941, these authors[3] restudied the material listing a series of eighteen cases up to 1940 and reporting a single case of duplication of the sigmoid. Since 1940, R. E. Gross[4] and associates have studied an additional forty-nine cases treated at the Children's Hospital. A single case, of duplicated sigmoid not previously reported, was added.

The earliest reference to duplication of the hind[3] gut appears to have been made in the eighteenth century publication *Ephermides* of the Leopoldine Academy, published in Frankfurt, Germany, in 1712. Present-day reference lists starting at the turn of the century all include mention of the case reported by Lockwood[5] in 1882. At autopsy a condition, which is of historical interest, was found represented by Lockwood's original sketch here reproduced (Fig. 1).

A. W. Gray[6] (1940) reported the autopsy findings of an eleven-month-old girl who had been admitted for vomiting, fever, abdominal distention and pyuria. The baby expired in a pattern of intestinal obstruction. Examination revealed triplication of the colon and numerous associated anomalies. These were: Exstrophy of the bladder; non-fusion of the pubic rami; absence of the vagina and external genitals; perineal fecal sinus; imperforate anus. He continues:

"Displaced laterally by the distended blind colons were rudimentary internal genital organs. On the left, the tube and ovary were compressed against the pelvic wall and were connected with a narrow fibrous cord, which represented the Müllerian duct. On the right, the same condition existed except that the ovary and most of the tube had herniated into the canal of Nuck. There was no fusion between the Müllerian ducts to form a uterus. There was slight bilateral hydronephrosis."

The case history we present is notably similar to one reported in 1914 by Roux de Brignoles[7] who discovered duplication of the colon at operation for acute appendicitis.

On the scale of anomalies, the case here reviewed, seems to be about in the middle zone of the extremes pointed out by Gray's report and that reported in 1947 by Ladd and Chrisholm.[8] In the latter instance, the authors describe the management of a girl, twelve years and five months old, covering several hospital admissions, two laparotomies, and two perineal procedures before the real nature of the anomalies was unraveled and definitive surgery was successful. These anomalies were reported to have been duplication of the uterus, vagina, and rectum. It will be noted that the sigmoid colon was not involved, and therefore we feel that the case report which follows is unique.

THE AUTHORS

C. C. Eades *(left)*

E. O. Jodar *(right)*

Case Report

D. K., girl, aged eight years, was admitted ambulatory September 3, 1958, and discharged September 6, 1958.

The following history was obtained: This well developed and well nourished child developed lower abdominal pain

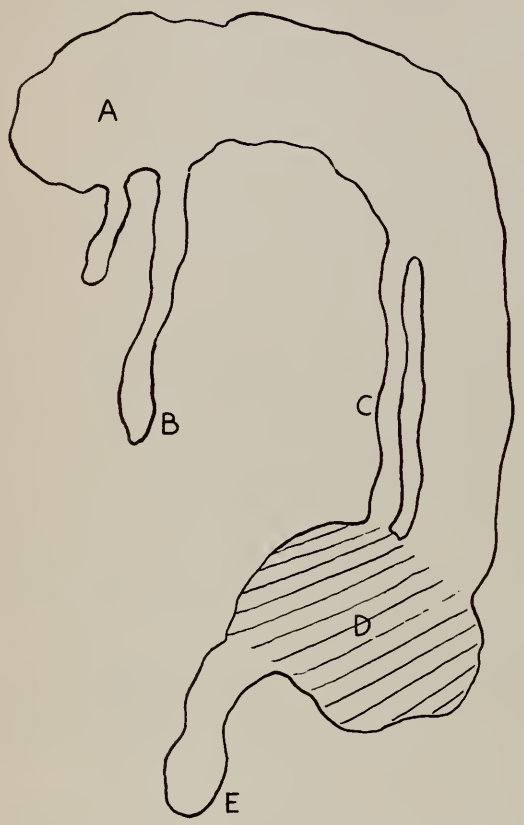

Fig. 1. A traced reproduction of Lockwood's illustration of 1882: (A) caecum and appendix, (B) terminal ileum, (C) diverticulum, (D) malignant disease mass, (E) rectum.

three days prior to admission. She vomited several times during the next twenty-four hours and complained of urinary frequency. The bowel movements were stated to have been normal in character and frequency, but of a dark color.

The house doctor on admission found a scaphoid abdomen with no rigidity but with tenderness in the right lower quadrant. There were normal bowel sounds and no palpable masses.

Laparotomy was performed for acute appendicitis by others than the authors. The operator's dictated report indicated that "the appendix was moderately edematous but without exudate. The mesenteric glands were enlarged. There was no Meckel's diverticulum. The intra-peritoneal fluid was increased and escaped as a clear serous fluid without odor."

The postoperative course up to the day of discharge on the second postoperative day was not remarkable except for patient-management problems which the surgeon felt could be better resolved in the home environment.

The pathologist's report was as follows: "The gross surgical specimen is an appendix 10 x 0.8 cm. The serosal surface is markedly congested and covered with a thin fibrinous exudate. The muscle wall is edematous and the lumen is segmented and packed with fecal material."

Microscopic diagnosis: obstructive appendicitis.

The interval history between September 6, 1958, and the readmission date of September 27, 1958, is obscured by emotional fog generated by the parents, neighbors, and relatives. However, a few salient points broke through. The child continued a down-hill course marked by weight loss of approximately six pounds, dyspepsia, diarrhea, anorexia, fever, abdominal pain, rectal tenesmus and the passage of "golden-frothy stool" which later became very dark. There was increasing lower abdominal distress, obstipation, vomiting, fever and "passage of urine every few minutes."

On the day following admission, September 28, 1958, one of us wrote the following progress note: "abdominal mass, about grapefruit size mostly on the left but across the midline. Rectal examination shows mass, not too low down but firm. *Diagnosis:* (1) Ovarian cyst. (2) Post-appendicitis abscess."

On this re-admission, the hospital laboratory reported: WBC 15,600; segmented neutrophiles 80 per cent; micro hematocrit 26 vol. per cent; Hb. 8.5 gm.; RBC 3,000,000; Color index .99; urine: color, yellow, slightly cloudy. Reaction pH 5, alb.; trace; sugar 0; acetone 4, diacetic 0, bile 0. WBC 5-7, RBC 3-5, epth. cells rare; rare granular cast.

Radiologist Report, September 28, 1958:

1. *Acute Abdomen Series.*—Survey films of the abdomen show the presence of a large rounded tumor which gives the impression of arising from the pelvic cavity and extending upward to the lower border of the fourth lumbar vertebra. The nature of the mass cannot be determined radiographically. There are no calcifications or gas shadows within the mass. There is no dilatation of the small or large bowel.

2. *Barium Enema.*—A barium enema was performed under fluoroscopic observation which showed considerable pressure upon the sigmoid colon by the soft tissue mass. The sigmoid is displaced upward and somewhat to the right by the mass. The mass also produced pressure upon the caecum which was also found to be displaced upward.

Conclusions.—Rather large soft tissue mass which appears to arise from the pelvis, producing pressure and displacement of the colon. The caecum is not deformed. I rather doubt that the mass originates from the appendix. It may well represent a pelvic neoplasm.

Consultant Surgeon's Note.—Eight-year-old female who appears chronically ill and anemic with marked evidence of recent loss of weight. The temperature curve during the past thirty-six hours is of the "spiking" type. The child has a "pinched" facial expression and is extremely apprehensive. Dehydration is evident. The lower abdomen is rounded out by a firm fixed smooth mass rising to the level of the umbilicus; more evident to the left. The bladder cannot be made out by percussion. Bowel sounds are about normal throughout the remainder of the abdomen. Abdomino-rectal bimanual palpation indicated the same findings. The rectum

was empty of feces. What appeared to be a thinned out patulous cervix could be felt through the anterior rectal wall.

Impression in Decreasing Probability.—

1. Adnexal tumor (infarcted dermoid).
2. Uterus didelphys with hemato-pyometra and peritonitis.
3. Meckel's diverticulum abscess.
4. Tubo-ovarian abscess.
5. Post appendiceal pelvic abscess.

(b) Duplication and abscess of the sigmoid and recto-sigmoid colon.

(3) Cloacal vestiges.

Operation.—(Fig. 2) The lower abdomen of this eight-year-old girl was opened to the left of the midline between the umbilicus and the symphysis. Sero-sanguinous exudate escaped in large quantities on opening the peritoneum; colon

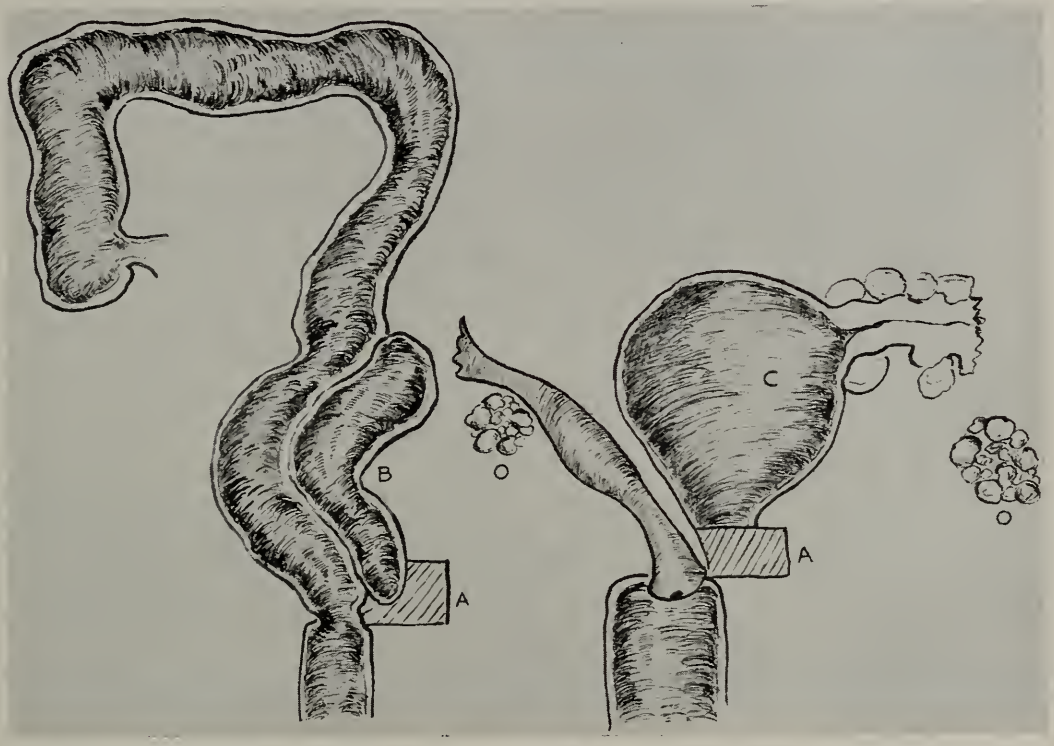

Fig. 2. Exploded diagrammatic representation of the superimposed genital and colonic structures observed at operation. (A) site of abscess and communication of the two systems, (B) duplication of sigmoid colon, (C) uterus didelphys, left element, with fallopian tube, (D) ovaries.

Approximately 48 hours after admission and 24 days since the laparotomy for appendicitis by another surgeon, the patient was re-explored.

Preoperative Diagnosis, September 29, 1958:

1. Post appendectomy pelvic mass, pelvic peritonitis, toxic anemia, pyrexia.

2. Probability of anticipated pathology:
   (a) Solid ovarian tumor (infarcted dermoid).
   (b) Uterine didelphys with pyometra and localized peritonitis.
   (c) Acute salpingitis.
   (d) Post-appendicitis abscess.
   (e) Meckel's diverticulum abscess.

Postoperative Diagnosis.—

1. Phlegmonous pelvic tumors consisting of multiple congenital anomalies involving the sigmoid colon and internal genitals: as

   (a) Uterus didelphys with pyometra and pyosalpinx.

bacillus odor was detected. The pelvic cavities were completely filled to the level of the umbilicus by two firm reddish-gray necrotic masses covered with sero-fibrinous exudate. These masses consisted of two distinct elements each containing a pinkish thick exudate of about 250 cc. After evacuation of these necrotizing cysts, the smaller of the two, proved to be a duplication of the sigmoid colon to the level of pelvic floor (Fig. 2A). Here the lower end of the sigmoid duplication joined the larger thicker walled inflammatory cyst. The latter proved to be the left element of a uterine didelphys which had received a perforation from the duplicated colon at (A) (Fig. 2). The left tube was surrounded by multiple thin-walled cystic inclusions. The left ovary appeared to be buried in the infundibulo-pelvic ligament.

The bladder and right uterine horn were flattened against the right pelvic wall and the conformation of the bladder suggested a duplication of this organ. However, a left sided accessory bladder and ureter could not be made out in this necrotic and hemorrhagic field.

The left didelphys and tube were removed down to a cuff in the pelvic floor representing a possible duplicated cervix.

The edge of this cuff was over-sewed for hemostasis and subsequent marsupialized drainage.

Both barrels of the duplicated sigmoid colon were resected and primary anastomosis between the low rectal segment and the mobilized descending colon was carried out in two layers. A decompressing caecostomy was made through a right flank incision using a No. 30 Foley catheter. Multiple Penrose drains were placed deep in the pelvis to the left lower uterine remnant. The abdomen was closed in anatomical layers after placing within the peritoneal cavity a solution containing two grams streptomycin and 1,000,000 units of penicillin. The patient required 700 cc. of electrolite fluids and 600 cc. of whole blood during this long procedure. She was sent to the recovery room in good condition.

Gross Pathological Diagnosis.—

1. Inflammatory phlegmonous polycystic and infarcted pelvic mass.
2. Segment of infarcted large bowel.
3. Inflammatory smooth muscle tissue.

Microscopic Diagnosis.—

1. Diffuse purulent phlegmonous inflammation of large bowel with abscess formation.
2. Phlegmonous inflammation of uterine tissue.
3. Large pelvic organized abscess.

Pathologist's Remarks.—The sections of the bowel represent congenital duplication of the upper rectum and sigmoid colon. The portions of the uterus represent a didelphys uteri.

Postoperative Course.—The child made a satisfactory recovery room response and was returned to her room with: (a) naso-gastric tube, (b) caecostomy tube, (c) indwelling catheter in urinary bladder.

Sero-sanguinous wound discharge was abundant but bowel sounds appeared within the first twenty-four hours after surgery. The naso-gastric tube was removed in forty-eight hours and oral fluids retained. The alimentation progressed to normal within the next seventy-two hours. Electrolytes and blood were administered in quantities indicated by the blood chemistry status. Caecostomy drainage was very slight during the first seventy-two hours and consisted of gas and liquid ileal contents.

The patient began to pass gas per anum on the third postoperative day and liquid stool per anum on the fifth postoperative day.

The stools were soon semi-formed and contained no mucus, blood or pus. There was no discharge from the vagina. The urine remained clear. The spiking temperature decreased by lysis and the caecostomy and pelvic drains were removed on the ninth postoperative day. Fecal or urinary fistulae did not develop and there was no enzymatic digestion of the wound edges.

The child was afebrile on the fifteenth postoperative day. Stools, appetite and morale were normal. The caecostomy wound had closed and the midline drainage site was near closure by secondary intention. The child was discharged improved.

Follow-up.—D. K., aged eight, was readmitted to the pediatric service of St. John Hospital on December 28, 1958, three months after resection of double sigmoid and left uterus didelphys. The mother's statement to the pediatrician indicated constipation and the passage of blood "with every stool" during the past week. The child had gained nine pounds since last operation. As in the past, the exact nature of the child's complaints were difficult to evaluate from the mother's statement.

On admission, the urine was clear, Sp. Gr. 100.7; pH acid; albumin 0; sugar 0; acetone 0; micro occ. squamous epithelial; hemoglobin 12.3 gms; micro-hematocrit 37 (control 40); WBC 6,950; neutrophiles 52 per cent; lymphocytes 48.

Intravenous Pyelogram, December 29, 1958.—K U B discloses the liver, spleen and kidneys to be normal in size and configuration. The psoas shadows are sharply outlined on each side. The bone structures are not remarkable.

There is no evidence of abnormal calcific density in the renal areas or along the course of the ureters.

After intravenous injection of dye, films were taken at five, fifteen, and twenty minutes. There is excellent concentration of the dye on each side indicative of good function. The pelves are of average intrarenal type and infundibuli and calices are normal bilaterally. The ureters are well demonstrated and there is no evidence of duplication or other anomaly. The ureters have a normal appearance on each side.

At the end of the study, there is a good cystogram which shows no evidence of abnormality. The upright study shows normal downward excursion of the kidneys in the upright position.

After evacuation, there is almost complete emptying of the urinary bladder.

Conclusions

The intravenous pyelogram on each side is well within normal limits. The ureters are normal in caliber and course. The urinary bladder is within average limits. There is no evidence of anomaly of the genito-urinary system. We do incidentally see considerable constipation within the rectum and recto-sigmoid region of the colon.

Procto Sigmoidoscopy and Vaginal Endoscopy Under Anesthesia

Vaginal Endoscopy.—An infant's procto-sigmoidoscope was used for vaginal endoscopy under anesthesia. A single normal cervix uteri was visualized. The vaginal fornices were carefully ironed out under good illumination. Anomalous vaginal openings were not seen.

Sigmoidoscopy.—The colo rectum was well prepared and empty. The standard procto-sigmoidoscope was passed under direct vision to and beyond the colo-rectal anastomosis which was found to be unconstricted and with an intact mucosa. No bleeding points, ulcers, or evidence of inflammation were seen.

Summary.—Normal colo-rectal tube with recent anastomosis without visible disease. Normal external, vaginal and cervical findings. The child was discharged with a final diagnosis of relieved fecal impaction and melena incident thereto.

Comment

The points of clinical interest detailed in this case report, having a bearing on the diagnostic problems, met in surgery of the young are:

1. The pattern of intestinal obstruction,[9] complete or partial, is in evidence in all reviewed cases of a similar nature. Urinary tract disorder is frequently part of the clinical picture.

2. The experience obtained from this case emphasizes the need for careful pre-operative examination and study.[7]

3. Duplicative anomalies of the sigmoid colon demand resection of both barrels because of the common blood supply of both elements of the duplication.

4. The female infant or child should be suspect, in the acute abdomen-syndrome, when an indefinite clinical history is obtained, and when the objective abdominal findings are grossly atypical of acute appendicitis, and are suggestive of space-filling pelvic masses.

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Ask Reports on Drugs

A program for the reporting of unusual or adverse reactions to drugs has been developed by the Food and Drug Administration. It will be conducted initially with a limited number of hospitals selected to represent a cross section of medical specialties. Where necessary, contracts may be negotiated with the hospitals (or individual physicians designated by them) providing for reimbursement.

As the program develops, it is planned that additional hospitals will be included with the aim of establishing nationwide reporting. The project is an outgrowth of a voluntary pilot study carried out during the past four years in cooperation with the American Association of Medical Record Librarians, the American Society of Hospital Pharmacists, the American Medical Association, and the American Hospital Association.

The program is designed to develop information promptly on the untoward effects of drugs, especially the newer drugs. The information will be utilized by FDA in the resolution of medical and administrative problems under the Federal Food, Drug, and Cosmetic Act.

Pectus Excavatum

A Critical Evaluation of Treatment

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EXPERIENCE with medical and surgical treatment of pectus excavatum in patients of the pediatric age group has often left much to be desired. Since World War II, when the importance of the secondary complications of pectus excavatum were again pointed out, many different techniques have been devised for treatment. There are now a great variety of individual variations in technique which further indicate that no one procedure has proven entirely satisfactory. The stimulus for surgical repair of pectus excavatum arose from the unusually high incidence of cardiopulmonary changes demonstrated in young adults of the draft age. Our experience has been limited exclusively to treatment of pectus excavactum in individuals of the pediatric age group. It is this group which appears to be the age at which repair should be undertaken if future myocardial and respiratory damage is not to result.

Etiology

Maldevelopment of the anterior musculature of the diaphragm with a shortening of the central tendon has been described by Brown[1] and many other authors.[2-4] Nevertheless, in this series early exploration of the chest of infants and children with pectus excavatum because of other prior existing pathology has failed to disclose any central tendon or abnormal diaphragmatic attachment which could be demonstrated as an etiological factor in pectus excavatum.

The senior author has explored the thorax and mediastinum of children ranging in age from the newborn to twelve years of age with pectus excavatum defects hoping to find a central tendon which could be incised, without success. The newborn infant (not included in this series) had esophageal atresia with tracheal fistula. One child explored at thirteen months of age had eventration of the left diaphragm. Another child's thorax was explored at eleven years of age for the removal of a segment of homologous rib strut in a repair of pectus excavatum. Further evidence to indicate that the central tendon fixation of the sternum is not a reasonable explanation, is the fact that often the point of greatest angulation of the sternum can be demonstrated as well above the diaphragmatic fixation. The insertion of the central tendon on the posterior border of the xipho-gladioliar junction may be as much as four to five centimeters below the point of greatest depression of the sternum.

The authors favor the etiological explanation of an acquired defect due to fetal position. It is theorized that if arms and legs are appropriately pressed into the thorax during fetal life, the defect is created early in the formative stages of the skeletal system. Brown, in his original article, mentioned this as a probable factor.[1] Without the opposing forces of longitudinal bone growth, the ribs and costocartilages are allowed to increase in length to an abnormal degree, thus increasing and perpetuating the acquired funnel chest deformity. The negative pressure in the chest probably assists in perpetuating this development. The typical round shouldered slumping habitus of children with a mild pectus deformity can further increase the severity of the skeletal defect.

Lesions similar to funnel chest have been described in children and young adults who are apprentice shoemakers. The pressure of instruments on the center of the chest, day after day, produces a depression at the distal one third of the sternum and xiphoid

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process. This acquired deformity can displace the heart to the left and produce symptoms. Since this may occur in a growing child, extremities firmly applied on the sternum and the flexed fetal position may easily produce an intrauterine pectus excavatum.[1]

chosen, are specifically symptomatic, and are of the appropriate age and stage of development.

As mentioned by many others,[5-7] the optimal age of correction is between two and one-half to four years, but at the same time, there is considerable

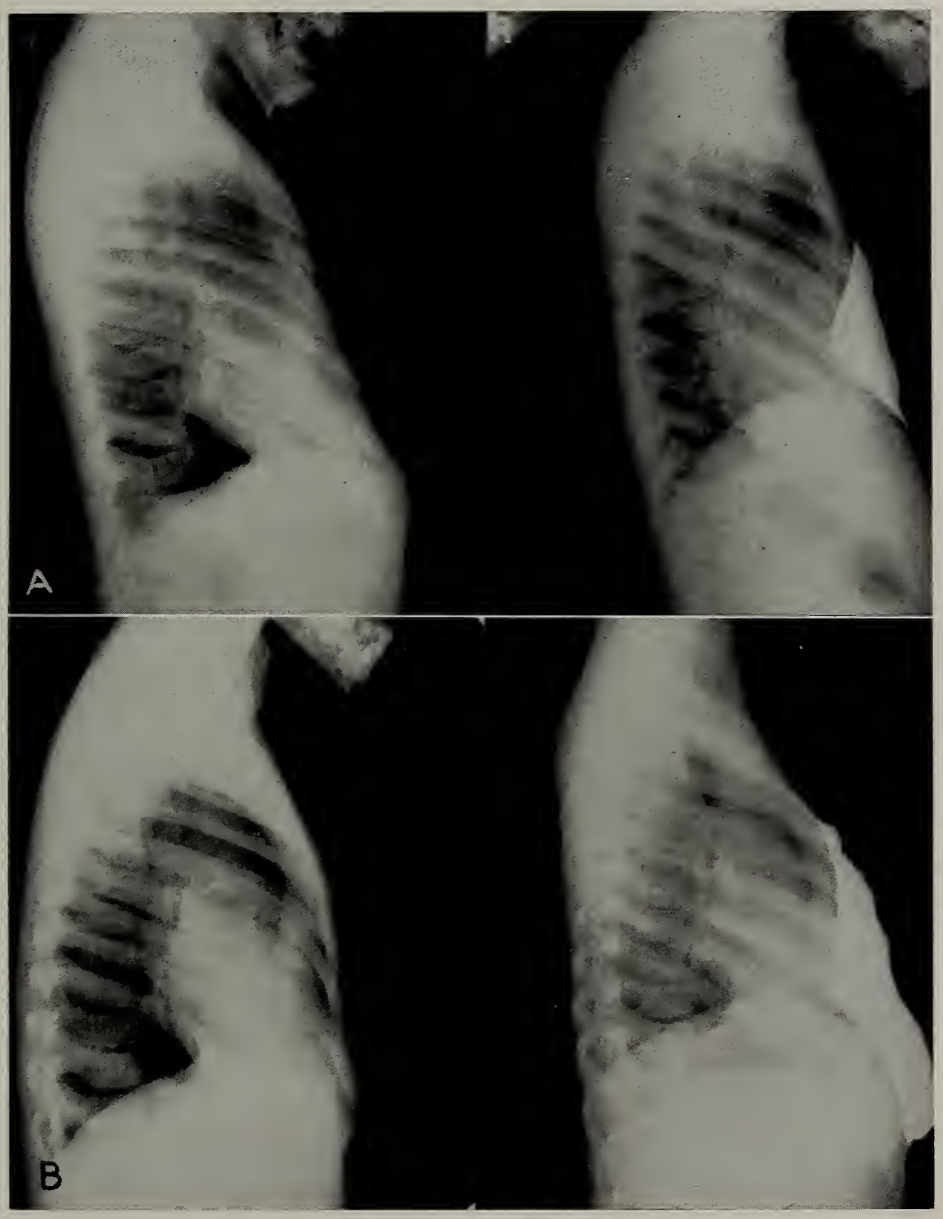

Fig. 1. (A) The lateral roentgenogram of the chest on the left is that of a four-year-old boy. The roentgenogram on the right is of a two and one-half-year-old girl. Both demonstrate the greatest posterior displacement of the sternum to be several centimeters above the diaphragmatic attachment. (B) Both lateral roentgenograms are of the same six-year-old white girl. The left is exposed during inspiration the right during expiration. The inspiratory roentgenogram shows the greatest depression of the sternum well above the diaphragmatic attachment.

Indications for Treatment

Because the cosmetic and functional results from repair of pectus excavatum are not always entirely satisfactory regardless of the method employed, it is important that the patients to be treated are carefully

variation in development and fixation of the thorax in the individual child. Some four-year-old children may still have a relatively unstable anterior chest wall which has considerable paradoxical activity. If such a child's symptomatology is not sufficiently acute to

warrant immediate surgery, he would be benefited by medical management and supportive treatment until the thorax is more developed and mature. On the other hand, some children have been seen at two years

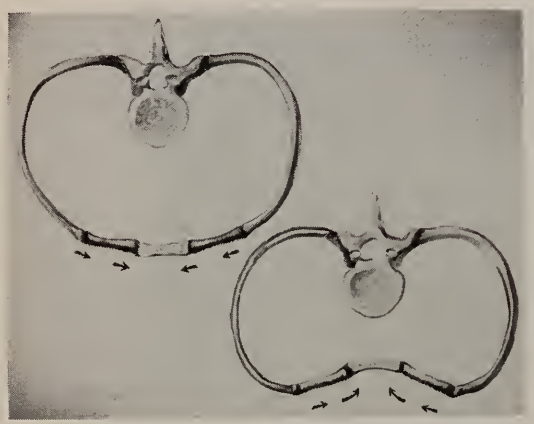

Fig. 2. This diagram shows the normal directly opposing forces of longitudinal bone growth in the normal thorax. As demonstrated in the presence of a pectus excavatum deformity, these forces do not oppose and therefore permit over growth of the ribs with increase in the pectus excavatum deformity.

of age who already had a relatively fixed anterior chest wall with very little paradoxical activity. Such a chest could not be expected to improve under any form of medical regimen and therefore surgical intervention, if necessary, could and should be undertaken at this age.

Reviewing the literature, it is common to find three reasons to undertake the surgical repair of pectus excavatum. They are[4,7-10] physiological, psychological and cosmetic indications. We find it difficult to justify a pectus excavatum repair for purely cosmetic purposes. There are several reasons for this feeling. First and foremost, the cosmetic results regardless of technique are not sufficiently reliable to make a guarantee of a cosmetically perfect chest. Secondly, much can be gained in efficiency and effectiveness as well as improvement of the cosmetic appearance of the chest through a purely medical exercise regimen. Third, the presence of a large scar across the most prominent portion of the anterior chest wall may well be more obvious and a source of more psychologic trauma than the pectus excavatum itself. Therefore, only strictly physiologic and symptomatic indications are justified for the repair of pectus excavatum.

Severe cardiac embarrassment is rare, nevertheless a variety of symptoms can be found due to the displacement of the heart to the left. The continuous pressure of the pectus on the heart can produce areas of ischemia in the myocardium and other electrocardiographic patterns such as partial heart block and arrythmias.

Less serious, but more frequent among patients of the pediatric age group, is the increased susceptibility to respiratory infections, as well as the increased difficulty when a respiratory infection is contracted. These children characteristically have a moderately severe pectus excavatum with considerable paradoxical activity of the anterior chest wall which results in an inefficient respiratory system. Under such circumstances the child's tussive activity is greatly decreased. Such a child is obviously prone to tracheal bronchitis and pneumonitis and is poorly equipped to combat these infections once they develop.

A third group of symptoms are those related to poor general development and unusual ease of fatigue. This may or may not be associated with symptoms of cardiac or pulmonary nature. It is not unusual, however, to see a child who appears malnourished, weak, and chronically exhausted with a moderately severe pectus excavatum. It is therefore our feeling that the presence of any one of the three or a combination thereof is indication for surgical repair. We do not feel that purely cosmetic reasons are justifiable at this time.

Material

Our impressions are the result of twenty-two operations on twenty patients with pectus excavatum treated during a period of seven years (1952 through 1958) at Children's Hospital of Michigan. The total number of patients with pectus excavatum treated surgically represent approximately 50 per cent of patients with this anomaly under observation and treatment. Fourteen were boys and six girls. The youngest patient was one year old and the oldest thirteen years old. There was only one colored patient in this series, a girl. Familial tendencies were present in three cases: two had grandfathers with the same defect and the remaining case had a twin brother with a "pigeon breast" deformity.

There were no cases of acute respiratory distress at birth as a cause of the pectus excavatum, but bronchial asthma was present in two of our cases, in one of these since two weeks of age.

All the patients fell into one of three indications for surgery listed elsewhere. Mild anorexia, ease of fatigueability, weight loss, pallor, shortness of breath, palpitations and even cyanosis (one patient) were recorded symptoms. A history of frequent colds were

present in almost all patients. Other anomalies were present in three patients: one had a diaphragmatic eventration, which was repaired prior to the pectus excavatum; another was a Mongol and a third had

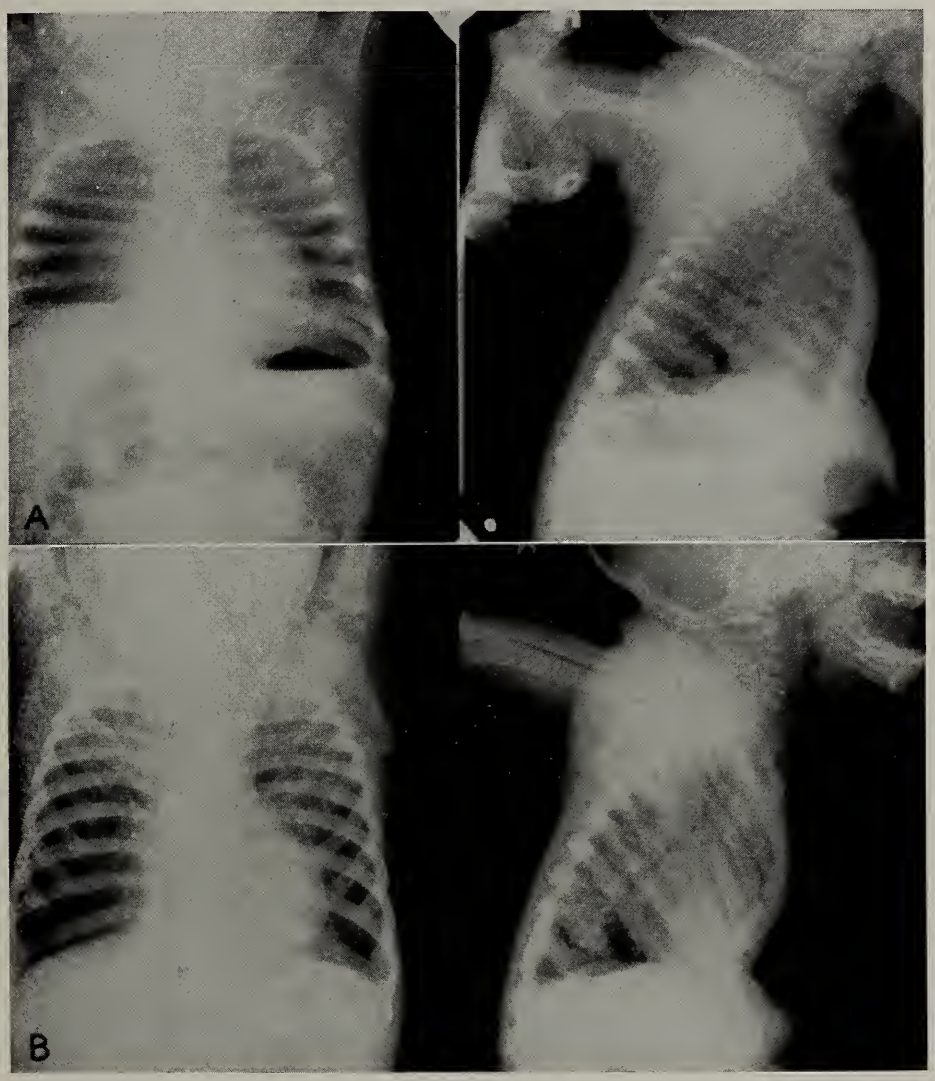

Fig. 3. (A) Roentgenograms show a mild pectus excavatum deformity in an eleven-month-old girl. (B) The same child a year later at twenty-three months of age shows marked increase in severity of the pectus excavatum as well as bilateral upper lobe pneumonic infiltrations.

cerebral palsy. Each of these had repeated severe respiratory infections. The deformities were all from moderate to severe. The heart was deviated to the left or in the center in all except one patient where it was located in the right chest.

Medical Treatment of Pectus Excavatum

A program of conservative therapy in the management of pectus excavatum was devised to supply the parents of children with this anomaly some form of treatment for their child while awaiting the optimal age for repair. We were gratified to note that patients who had borderline defects were often sufficiently improved after a six month or more period of conscientious exercise that they were definitely removed from the class where surgical intervention was considered. As a result of this experience, there seems to be a specific indication for a program of medical management of pectus excavatum. The patients who are subjected to this form of therapy fall into three categories.

1. Those patients in the so called borderline group whose cardiopulmonary and developmental findings are not sufficiently remarkable to warrant immediate surgical intervention. 2. Those children who are too young or whose chest wall has still not sufficiently matured for an optimal repair. 3. Young adults who

have passed the more vigorous physically active phase of life and now consider the repair of the pectus excavatum defect for purely cosmetic or psychogenic reasons.

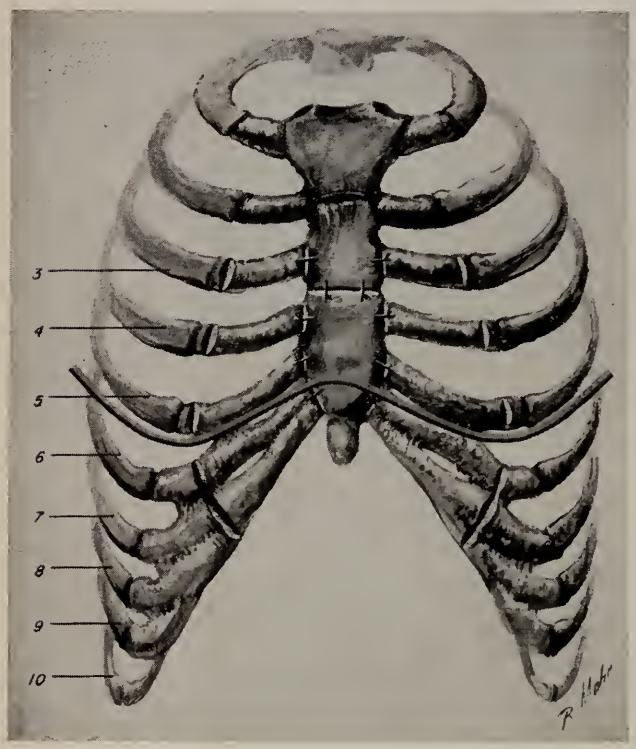

Fig. 4. The diagram of the thorax demonstrates the essential steps of the surgical correction of pectus excavatum as described in the text.

The medical regimen consists of efforts to improve the efficiency of the cardiorespiratory system. The first step in the medical program is:

1. The removal of all obstructing tissues in the airway. In the pediatric age group this means hypertrophied adenoids and/or tonsils which partially or intermittently obstruct the airway, thus exaggerating the existent funnel chest deformity and paradoxical motion of the anterior chest wall.

2. In the armamentarium of medical treatment is postural exercises. Characteristically, these children sit in a slumped, round shouldered position which exaggerates the protuberant abdomen and the sunken distal sternum. When the child's shoulders are retracted and he is forced to sit or lie in a flat position the defect is often minimized. Orthopedic braces and other mechanical devices to maintain good posture have proved to be quite unsatisfactory so far as the patient, parents and doctor are concerned. We have therefore encouraged the mothers to make a "bolero type" jacket for these children. The jacket must be cut narrow in the shoulders and have a relatively narrow strip over the anterior shoulders. This vest-like jacket will "cut" the child in the shoulders anteriorly whenever he slouches into the typical habitus. Careful attention to posture alone has been quite gratifying in many instances.

3. The muscular exercises prescribed in the medical management of pectus excavatum are designed to strengthen and develop the accessory respiratory muscles. In particular the pectoralis major and minor, the trapezius and supra-scapularus are of particular importance in this phase of the treatment. The development of these muscle groups affects three desirable results: (a) A generally improved cosmetic appearance of the chest because of the filling out of the upper anterior chest wall by the increased bulk of the pectoralis major muscle; (b) posture will improve with the development of the trapezius and supra-scapularus muscles by their increased tone and mass; (c) as accessory respiratory muscles, the pectoralis groups have a superior and anterior lifting force on the rib structures and may therefore contribute somewhat to correction of the angulation of the ribs of the anterior chest. The exercise program prescribed consists of pushups, chinning, rowing and activities which are designed to develop the muscles of the shoulder girdle. In children the velocipede type of tricycle which is pumped by pushing and pulling a handle bar has proven to be a satisfactory toy to aid in this phase of the treatment.

4. Breathing exercises are as important as any of the above in the completion of the medical therapy program. Such exercises take the form of breath holding, balloon blowing, musical instrument blowing, blow bottles, *et cetera.* These activities teach the child to more effectively and efficiently use what pulmonary reserve he has and by exercise and education to actually increase the effectiveness of his respiratory efforts. The program outlined for the medical management of pectus excavatum has done much to convince the parents and doctor that the particular patient, under consideration, should or should not be subjected to surgical operation.

Surgical Treatment

The dissatisfaction with several of the accepted surgical techniques for repair of pectus excavatum is

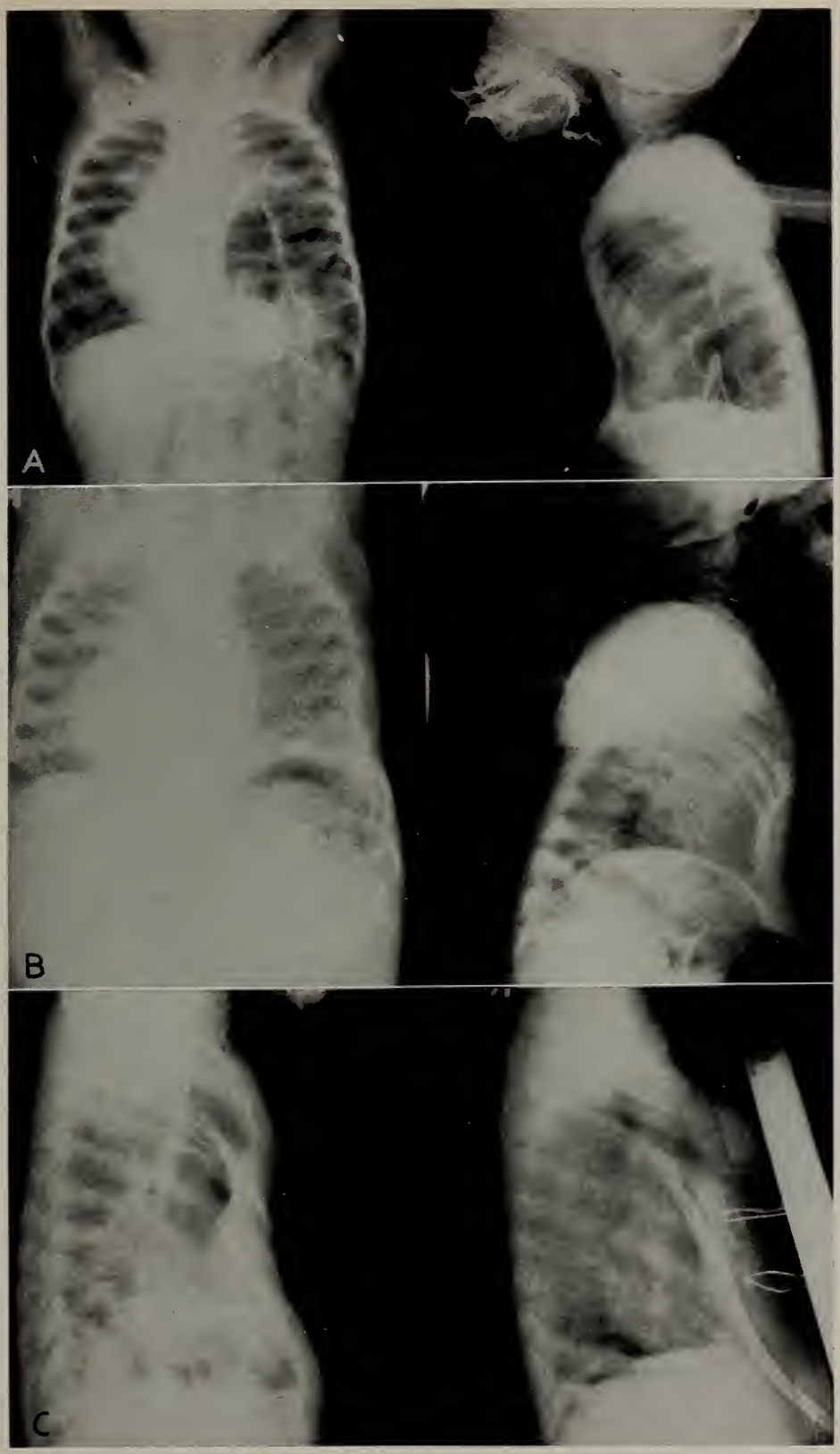

Fig. 5. (A) Roentgenograms are of a thirteen pound, thirteen-month-old boy infant with a severe pectus excavatum and eventration of the left diaphragm. (B) The same patient seven months later after repair of the left diaphragmatic eventration followed in two months by an autogenous rib strut repair of the pectus excavatum. (C) The left lateral roentgenogram of the same patient eighteen months after the rib strut pectus repair shows a large osteofibrotic mass on the posterior surface of the sternum which markedly shortens the anteroposterior diameter of the chest. The lateral roentgenogram on the right shows the external traction apparatus atfer resection of the rib strut with marked increase in anteroposterior diameter of the patient's chest.

the result of a long term evaluation of the ultimate results achieved by these various techniques. The immediate complications have actually been few in number and minimal in significance. If the patients are carefully chosen for surgical intervention on the basis of clinical symptoms, they are generally improved following surgical repair and have a minimal immediate morbidity. It has been the late complications arising six months or more following surgery that have prompted the dissatisfaction and modification of various surgical techniques. At the present time the author believes that the minimal amount of dissection necessary to correct the pectus deformity and adequately stabilize the anterior chest is attained by resuturing the costocartilages to the sternum.

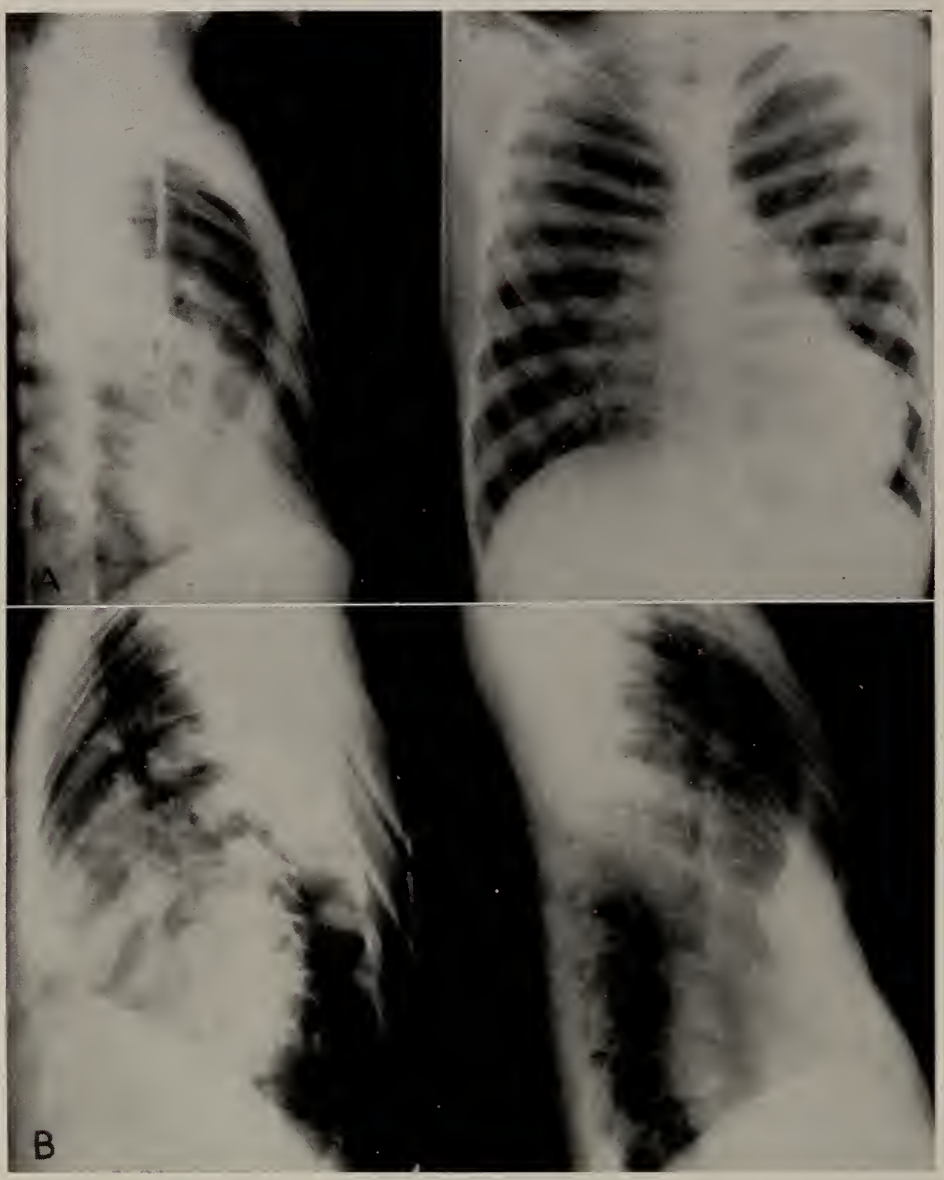

Fig. 6. (A) Preoperative roentgenograms on an eleven-year-old boy reveal marked shortening of anteroposterior diameter and displacement of the heart to the left. Note also the marked cephalo-caudal tilt of the ribs as the result of the abnormal length. (B) The left roentgenogram shows the autogenous rib strut in place one month after surgical repair. The lateral roentgenogram on the right demonstrates the large fibrotic mass on the posterior border of the sternum, which again severely shortens the anteroposterior diameter.

Routine steps in this type of operation are the following:

General anesthesia with indotracheal intubation is utilized in all cases. A transverse incision in the infra-mammary fold from nipple line to nipple line has been proved adequate. The superior and inferior

flaps are developed and the pectoralis major and rectus muscles exposed. The third, fourth, fifth, and sixth ribs and costal arch are exposed bilaterally at the junction with the sternum by stripping the muscle from its insertion. The xiphosternal junction is next divided and by blunt dissection the posterior surface of the sternum and the pleural reflections are freed of the mediastinal structures. The costo-sternal junctions of the exposed ribs are divided. The sternum lays free and a transverse osteotomy is done at the level of greatest angulation. The osteotomy is on the anterior surface of the sternum. The sternum is then angulated at the desired level and kept in this position by suturing the periosteum with 00 silk sutures. Similar osteotomies are done at the level of major angulation in each rib and excess costal cartilages removed. The costal cartilages are reapproximated to the sternum using 00 silk mattress sutures. A number 30 stainless steel wire is passed under the sternum and brought through the skin in the midline to be attached to an external traction apparatus. The anterior mediastinum is always drained and chest tubes are inserted if the pleura has been opened. The pectoralis fascia is approximated in the midline in the closure.

Complications

It is unfortunate that the medical literature is so plentifully supplied with articles describing various surgical techniques and the good immediate results achieved with the technique in a limited number of patients over a relatively short period of observation. At the outset of our experience in repair of pectus excavatum, we used the technique of partial resection of the costocartilages, sub-perichondrially, a transverse sternal osteotomy and external traction fixation. This technique, although relatively simple and easily carried out, often resulted in parasternal retraction of the rib ends so that the ultimate deformity following pectus excavatum repair was very similar to that of a pigeon breast. The next surgical procedure employed was the use of the homologous and autogenous rib struts as a means of fixation, thus replacing the external fixation. This technique, although reasonably satisfactory at the outset, resulted in months to come, in the development of a large fibro-osteotic mass on the posterior border of the sternum and anterior chest wall. In several instances this mass was more successful in shortening the AP diameter of the chest than the original pectus deformity.

It therefore became necessary to resect the rib strut and resort to external fixation. In any of the instances in which rib struts were employed, no evidence of wound infection which might have caused an increase in the amount of reaction appeared. Gradually, after these various experiences, the technique described above was developed. The results achieved by this method are uniformly good functional results and generally give satisfactory cosmetic results.

Results of Treatment

Sixteen of the twenty patients reported were operated at least two years prior to this study. The two patients re-operated have been followed for periods of four and five years since the second operation. The functional results in the sixteen patients have been uniformly good. In several specific instances, the children were under additional careful observation because of cerebral palsy, Mongolism, and speech defects. These trained observers noticed remarkable increase in stamina with a more progressive development following surgical repair. It was generally noticed that children in the lower twenty-five percentile of the weight and height scales, have gradually moved into the middle percentile groups. Those children in whom severe recurrent respiratory infections were the indications for surgery have shown a definite decrease in the incidence and severity of the infections. Many other examples of less obvious evidence of improved function and reserve have been recorded in the observations of satisfied parents.

The above-described operation does not assure a perfect cosmetic touch; asymmetry and slight overcorrection adjacent to areas of slight under-correction have resulted in chests the appearance of which is not entirely satisfactory. The result of experience with several other procedures leads us to believe that asymmetry and variations in degree of correction are less with this operative technique than with those in which more extensive resections are carried out. There has been no instance in which the cosmetic result, or failure to achieve a satisfactory functional result, necessitated consideration of re-operation.

Summary

1. The authors believe that fetal position and resulting forces of bone growth play the primary role in the development and perpetuation of pectus excavatum deformity.

2. The indications for surgical treatment for pectus excavatum should be those based on physiologic signs and symptoms. The author does not feel that the

cosmetic results, regardless of operative technique, justify repair of pectus excavatum for purely cosmetic reasons.

3. The advantages and disadvantages of various surgical techniques have been discussed briefly and the authors modified technique presented.

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Discusses Concern of Women

"The concern women of all ages, particularly teen-agers, have over the dimensions of their bosoms can have a pronounced effect on the individual's social and emotional behavior—an effect that can lead to illness," said Dr. Edward R. Pinckney, an internal medicine specialist of Beverly Hills, California.

In an editorial in the May *New Physician*, official journal of the Student American Medical Association, Dr. Pinckney said, "As a sign of our times, the dimensions of women are recorded on almost every page of our newspapers and magazines, given prominence in the movies and on television, and have even become a popular topic for conversation.

"The young girl between nine and nineteen is a competitive individual," Dr. Pinckney continued, "and her greatest concern is with her appearance and the need to be 'average.' Therefore, in our day and age, it is a healthy sign when such a girl, or her parents, consults a physician regarding small breasts." The woman who has had many children may experience the same social difficulties as the teen-ager, but here the treatment is quite different.

"If no congenital, hormonal or nutritional cause is found, and if the psychic factor seems within reason, after the matter has been discussed with the patient and parents, the acceptance of a soft molded rubber pad is the simplest solution, according to specialists in the field of endocrinology and gynecology."

the blue shield **record**

News in the field of prepaid health care for the doctors of Michigan

The *Journal's* special Blue Shield issue, published each June, is a valuable communications opportunity. It gives Michigan Medical Service a much appreciated occasion to report its activities to the members of the Michigan State Medical Society and to all members of Michigan's medical community.

The House of Delegates recognized the need for more frequent Blue Shield reports when, last September, it adopted a resolution calling for improved communications between Michigan Medical Service and Michigan physicians.

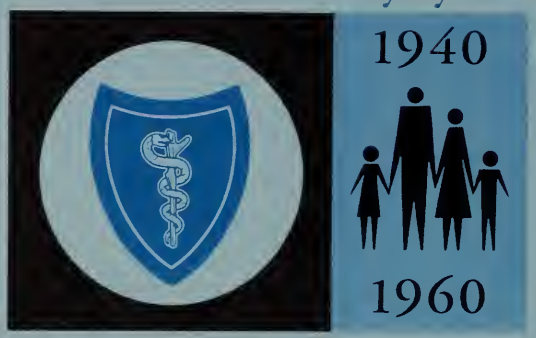
A Professional Relations Committee of the Michigan Medical Service Board of Directors is already hard at work toward this goal. In addition, professional relations liaison committees of hospital staffs and component medical societies are now being formed to provide effective communications on a two-way basis.

The relatively new *Blue Shield Record,* written to convey news of Blue Shield and prepayment to physicians, will be Michigan Medical Service's prime bearer of general information to Michigan's doctors. Hence, the use of the *Blue Shield Record* logo to introduce this annual Blue Shield issue of the *Journal.*

G. Thomas McKean, M.D.

G. Thomas McKean, M.D.

20th anniversary year



michigan medical service

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A MATTER OF FINANCES

An editorial

BY A.C. FURSTENBERG, M.D.

READING TIME: 1 MINUTE

Financing medical care is no longer a purely personal matter in this country. It has become a resounding social and political issue.

Congress is interested in health care finances, as are the Presidential candidates. The newspapers abound in announcements of hearings, studies, plans, proposals and counter-proposals. Needless to say, the man in the street is interested, too.

We have been warned repeatedly in recent years that the country is gravitating toward a sort of national health service. As a matter of fact, the warnings have been so frequent and so uniformly strident that the ear is in danger of becoming immune, just as it becomes inurred to familiar noises.

I don't wish to add to the din. I wish simply to say that I believe Americans in general would be eager to avoid a government-medicine program if they could feel they have an acceptable alternative.

I believe that a most acceptable alternative is Blue Shield, for Blue Shield has almost always been sensitive and alert to the needs and the desires of doctors and the public and, therefore, has come closer than any other mechanism to providing the kind of health care financing that is generally desired and needed.

I believe that if Blue Shield continues to display this kind of sensitivity and flexibility, the medical profession, through Michigan Blue Shield, will provide the kind of program that will render government medicine not only unnecessary but unwanted.

However, passing resolutions won't do it. Anti-government-medicine press kits won't do it. Talking at each other won't do it.

Providing the best voluntary prepayment program ourselves *can* do it.

M-75— MISSION ACCOMPLISHED

READING TIME: 2 MINUTES, 15 SECONDS

Early this year, Michigan Blue Shield accomplished an 18-month job that proved to be as paradoxical as it was difficult. The problem: Meet a public demand for a higher level of medical-surgical benefits (at a necessarily higher cost); then attempt to sell this higher cost program at the peak of a serious economic recession.

The new, better and more expensive benefit level was M-75, and had its beginning with the Michigan State Medical Society's 1957 survey to determine what the public and the doctors of Michigan wanted in the way of prepaid medical-surgical care.

The results of that study led to the principles which were adopted by the MSMS House of Delegates in 1957 (reconfirmed by the House in 1958) and given expression in the resultant M-75 contract.

The M-75 program was put on the market during the last half of 1958. However, with recession-inspired caution, many individuals and organizations took a hard second look at the higher cost of the broader M-75 benefits and the accompanying Blue Cross rate increase, many of them deciding to stay with the less effective, but less costly, $2,500-$5,000 Blue Shield contracts.

M-75 rates represented benefits in uncharted areas of prepaid care for which relatively little reliable experience data were available. Furthermore, M-75 rates were established at a self-supporting level, and they were not intended to subsidize the older Blue Shield contracts. But this, in fact, is what happened. The delay in conversion of groups from $2,500-$5,000 to M-75 contracts caused the lower-rated, older contracts to drain about $1 million of income from M-75 and it became imperative to accelerate the lagging conversion. So Blue Shield, with MSMS approval, sought acceptable expedients that would tend to reduce buyer resistance.

First, it introduced a deductible contract that would sell at a lower rate and meet with less resistance on the part of the

buyer. Second, it offered Income-Not-Certified contracts to groups which normally would buy certified contracts, thus enabling the buyer to select lower income ceilings at lower rates, albeit at a slight reduction in benefit level. (Nevertheless, individuals within the group still retained the option of choosing the appropriate income ceiling for service benefits.)

During that year, Michigan Blue Shield and its companion plan, Michigan Blue Cross, lost a number of groups to commercial insurance companies which, through their flexibility of programming, were able to capitalize on the recession by offering a lower degree of benefit at lower rates.

To what degree the medical profession's controversy over M-75 affected the rate of conversion is impossible to determine, but it seems reasonable to assume that it produced a degree of doubt and confusion about Blue Shield in the minds of members and the public.

The controversy had centered mainly around the method of paying non-participating doctors; around income ceilings based on subscriber income rather than family income; and around the level of the new $7,500 income ceiling. These problems were treated by the House of Delegates in September, 1959 in these ways: 1) The House reaffirmed the then existent policy that non-participating doctors be paid directly by Blue Shield only if the patient provided an assignment which was to be incorporated in the Doctor's Service Deport; 2) the House resolved that income be based on family income, rather than subscriber income; 3) the House called for implementation of a maximum family income ceiling of $6,500 as soon as feasible.

The House also asked that Michigan Medical Service continue, in the meantime, to sell M-75 contracts.

Today, the conversion job is virtually an accomplished fact.

According to schedule, 96 per cent of Blue Shield contracts on May 1 represented M-75 coverage.

M-75 GROUP	CONTRACTS	MEMBERS
M-75 Group		
Plan A	99,309	200,460
Plan B	286,139	753,750
Plan C	404,035	1,296,083
Plan D	112,295	389,239
Sub-total	901,778	2,639,532
M-75 Group Deductible		
Plan A	137	196
Plan B	548	1,481
Plan C	373	1,261
Plan D	188	623
Sub-total	1,246	3,561
Pending	1,888	5,233
Sponsor Dependent Rider		3,107
Family Continuation Rider		1,622
Total M-75 Group	904,912	2,653,055

M-75 GROUP CONVERSION

M-75 Group Conversion		
Plan A	64,150	98,479
Plan B	31,188	75,086
Plan C	9,704	29,084
Plan D	3,326	9,964
Sub-total	108,368	212,613
M-75 Deductible Group Conversion		
Plan A	1,807	3,244
Plan B	1,581	4,401
Plan C	674	2,177
Plan D	326	1,022
	4,388	10,844
Total M-75 Group Conversion	112,756	223,457

M-75 NON-GROUP

M-75 (Under Age 65)		
Plan A	41,333	72,193
Plan B	17,275	41,249
Plan C	5,386	16,458
Plan D	3,520	10,001
Sub-total	67,514	139,901
M-75 (Senior)		
Plan A only	4,726	4,726
Total M-75 Non-Group	72,240	144,627
TOTAL M-75:	1,089,908	3,021,139

$2,500 GROUP	CONTRACTS	MEMBERS
Surgical	11,769	26,783
Medical-Surgical	69,032	173,621
Sub-total	80,801	200,404
$5,000 GROUP		
Surgical	6,629	21,666
Medical-Surgical	49,145	137,816
Sub-total	55,774	159,482
Total $2,500-$5,000 Group	136,575	359,886
Pending	2,362	5,848
$2,500 GROUP CONVERSION		
Surgical	5,047	9,661
Medical-Surgical	14,166	26,216
Sub-total	19,213	35,877
$5,000 GROUP CONVERSION		
Surgical	1,145	2,301
Medical-Surgical	7,419	16,302
Sub-total	8,564	18,603
Total $2,500-$5,000 Group Conversion	27,777	54,480
$2,500 NON-GROUP		
Surgical	21,286	45,277
TOTAL $2,500-$5,000	188,000	465,491

TOTAL MICHIGAN BLUE SHIELD CONTRACTS 1,277,908

TOTAL MICHIGAN BLUE SHIELD MEMBERS 3,486,630

"PAYCHECK" FOR THE BLUE SHIELD BOARD OF DIRECTORS

READING TIME: 1 MINUTE, 15 SECONDS

"Section 9. No compensation shall be paid to any Director for services as a Director, but reimbursement for actual and reasonable expenses may be authorized by the Board."

Thus, the by-laws of Michigan Medical Service make clear that any compensation for the time, effort and interest expended by members of the Blue Shield Board of Directors must take the form of the personal satisfaction that derives from doing good work for the public and the medical profession.

How hard do Blue Shield Directors work for this non-monetary reward?

Well, in 1959, the Board put in almost 700 man-hours during *regular sessions* of the Board of Directors.

They put in more that 380 man-hours at *special meetings.*

They put in 670 man-hours as members of various *committees of the Board.*

Total time at the meeting table: *about 1,750 man-hours.*

That's an average of about *52 man-hours per member* per year.

Those figures represent officially-recorded meetings. They do not include the hours of hard work put in by a Director at his desk at home or on the telephone. They do not include the time he spends traveling on Blue Shield business — in all kinds of weather.

But no man-hour total can ever measure the wear and tear on the nervous system of an already overworked man who, somehow, always manages to find a little more time, a little more energy to devote to a job that he knows needs doing and that somebody has to do.

An old saw says that when you want a job done, you call on a busy man to do it. Blue Shield is fortunate in having so many busy men on its board.

BLUE SHIELD TESTIMONY ON THE AGED

READING TIME: 3 MINUTES, 30 SECONDS

On the afternoon of December 11, 1959, G. Thomas McKean, M.D., President of Michigan Medical Service, appeared at the Detroit hearings of the U.S. Senate Subcommittee on Problems of the Aged and Aging to relate the ways in which Michigan Blue Shield has, and is, providing medical-surgical protection for persons 65 years of age or more.

In a statement filed on behalf of Blue Shield, Dr. McKean told the subcommittee that Blue Shield, in September of 1959, had introduced a contract for persons who are 65 years of age or older and that the contract had been developed in response to resolutions adopted by the American Medical Association and the Michigan State Medical Society in December 1958.

Of Michigan's 650,000 senior citizens, Dr. McKean said, approximately one-half are believed to have some sort of health care protection. About 175,000 senior citizens are in the State's working force, he said, and are assumed to have some sort of group medical-surgical coverage, either through Michigan Blue Shield or through commercial insurance companies. More than 9,000 have the new Blue Shield Senior contract, he said, and another 150,000 are covered by Blue Shield under formal retirement programs, through Non-Group contracts or through Group Conversion contracts.

In relating the origin of the new Senior contract, Dr. McKean described the relationship between Blue Shield M-75 scheduled fees to average fees charged by Michigan's physicians. Surgical fees payable by Blue Shield for subscribers earning in excess of $5,000 per year were 107 per cent of the average Michigan charge, while M-75 scheduled surgical fees acceptable to Blue Shield participating doctors for subscribers with incomes less than $2,500 a year were 71 per cent of the average Michigan charges.

"Thus, in the existing $2,500 income limit plan under M-75, Blue Shield had, in fact, the basis for a medical-surgical contract

for senior citizens," Dr. McKean told the subcommittee.

He pointed to two basic and traditional Blue Shield characteristics that were retained in the Senior contracts: 1) The service principle, which protects the oldsters from unpredictable out-of-pocket expenses, and 2) The community-rating principle, under which Blue Shield provides this coverage for all aged persons at the same rate, $3.24 per month.

He pointed out that Senior citizen contract holders pay their own way as a group because "it is not the prerogative of Michigan Blue Shield to burden other Blue Shield contract holders with a portion of the cost of medical care for the aged . . ." However, he said that a degree of subsidization takes place in the Blue Shield actively-employed groups and in groups with formal retirement programs in which the ages of members vary widely from young to old, although the rates are the same for all subscribers holding the same type of contract.

Dr. McKean told the subcommittee that the introduction of the Blue Shield senior contract filled "the last void in prepaid medical-surgical coverage for the aged—the void that represented those persons who did not obtain coverage from Blue Shield or commercial sources before attaining age 65, and those whose commercial coverage had no conversion privileges upon retirement."

Said Dr. McKean: "Blue Shield has, since its inception, maintained a policy of not cancelling coverage except for failure to pay subscription fees or for fraud. As a result, many of the aged population in Michigan have long been protected and continue to be protected by other forms of Blue Shield contracts."

He listed five other methods by which persons 65 years of age or more now have Blue Shield coverage:

1. Group enrollment (active employment).
2. Formal retiree groups (group benefits at group rates for retirees where the subscriber's employer has a formal pension or retirement program and where the payroll deduction mechanism is made available to the retired persons for purposes of making possible group remittance to Blue Shield).

3. Group Conversion contracts (available to any person who leaves an enrolled Group).

4. Non-Group contracts for persons enrolling before reaching age 65 (available since 1951 and non-cancellable, regardless of age).

5. Sponsored Dependent Rider (which enables a group subscriber to provide an aging dependent with Group Conversion coverage at Group Conversion rates).

Dr. McKean concluded: "In summary, Mr. Chairman, I would like to point out that, in establishing the Blue Shield prepayment corporation, the Michigan State Medical Society has attempted to meet the public's need and demand for this type of medical expense budgeting system. The success of this effort, I believe, is attested by the public's receptiveness to it. It has proved to be not only a large organization, but a dynamic one, which is clearly demonstrated by the fact that it now makes available to every citizen in the State of Michigan the opportunity to obtain Blue Shield coverage. And it is the assumption of the medical profession of Michigan and Michigan Medical Service that future growth in this area of protection is imminent. It is further agreed among those of us in the field of health care that within 8 or 10 years, when these various programs have had opportunity to mature, most of our senior citizens will be provided for through voluntary agencies and that legislation by the Congress to install a government system to supplant this voluntary method will be unnecessary."

THE COMMERCIALS— HOW THEY COMPETE

READING TIME: 2 MINUTES

Comprehensive major medical health insurance is one of the hottest items on the prepaid health care market today. Its broad scope of coverage appeals to the individual consumer. Its competitive rate appeals to the sophisticated group purchaser who buys fringe benefit programs with a sharp eye on costs.

Major medical has gaps and weaknesses, some of which will be pointed out herein, but the fact remains that it is a highly salable short-range expedient for holding down the costs of the employer.

The most common characteristics of major medical care are:

1) The deductible, requiring a certain expenditure by the patient before all or most of the benefits begin. The deductible ranges from $25 to $500, but usually is $100.

2) The co-insurance feature which requires the patient to pay a part of the bill, with the carrier assuming the balance. The patient's portion usually ranges from 20 to 25 per cent.

3) The ceiling feature which places a dollar limit on the carrier's liability. Ceilings range from $2,500 to $20,000, centering around $5,000 for a single illness and $10,000 for two or more, renewable upon proof of recovery of the patient.

Sometimes major medical is written atop a primary coverage such as Blue Cross-Blue Shield. Or it may be written atop a straight $500 allowance for service while in the hospital, followed by the co-insured benefits after deductible, or without any primary coverage, in which case the deductible and co-insurance become effective immediately. The use of such deductibles and co-insurance enables the carrier to reduce its liability, and to set rates at a level competitive with, or below, service plans.

Two other areas in which major medical underwriters pare costs are maternity care and in-hospital medical care.

Maternity coverage — a high incidence item — usually is treated as a separate area of benefits. About half the commercials cover maternity care with a flat maximum benefit — generally about $250 for both hospital and professional services. Many

simply exclude "routine" pregnancy entirely. Abnormal maternity cases frequently are treated on a straight co-insurance basis, with a deductible thrown in. Sometimes, maternity care does not cover the newborn until the baby is two weeks old or is readmitted to the hospital. Some carriers simply exclude routine nursery care. The savings to the carrier are considerable since maternity admissions represent a high percentage of the total (about 20 per cent for Blue Cross).

Medical cases also represent a large percentage of total admissions (about 42 per cent for Blue Cross). Seldom does major medical have a primary or first-dollar benefit unless it is written over a primary. Sometimes the plans with the $500 in-hospital allowance will pay medical benefits out of that $500. But when the hospital charges also must be taken from the same amount, the $500 obviously does not go far. In most instances the bulk of the medical benefit is subject to the deductible and the co-insurance.

The $500 allowance before deductible and co-insurance, as well as most major medical benefits, relates to periods of illness, and renew on proof of complete recovery. The effect is to reduce liability on the chronic cases for which the catastrophic costs are most likely to accrue.

Commercial major medical contracts also usually include at least several benefits outside the basic benefit area; e.g., ambulance service, blood, private nursing, prosthetic appliances and take-home drugs, almost always with a deductible.

These coverages have weaknesses, but when cost is a prime factor, major medical often wins consideration.

The cost factor is one of major medical's strongest promoters today. Most health coverage is purchased through a group employer, frequently by a sophisticated management man who must think as much about price as about quality. Prepaid health care has become a direct cost of being in business and the margin of profit in modern business frequently is slim, so overhead costs are closely watched and regulated lest they offset the narrow cushion of profit. The business executive, therefore, attempts to fix or stabilize as many costs as possible. Major medical, with its non-service-benefit structure, lends itself to this expediency.

In recognition of the market's receptiveness to major medical coverage, the Enrollment Committees of Michigan Blue Cross and Michigan Blue Shield have been at work on extended benefits coverages that will meet this market situation, while adhering to the basic Blue Cross-Blue Shield contract structures.

BLUE SHIELD CONTRACTS

	TYPE OF CONTRACT	IN-HOSPITAL MEDICAL CARE DAYS	TOTAL DAYS WITH RIDER	RENEWAL PERIOD	DAYS FOR MENTAL, NERVOUS, TB	RENEWAL PERIOD
GROUP	M-75 Group	120	365 (Rider M)	3 months between stays	30	6 months between stays
	M-75 Group Deductible	120	365 (Rider M)	3 months between stays	30	6 months between stays
	M-75 Income-Not-Certified Group	120	365 (Rider M)	3 months between stays	30	6 months between stays
GROUP CONVERSION	M-75 Group Conversion	120	Not available	3 months between stays	30	6 months between stays
	M-75 Deductible Group Conversion	120	Not available	3 months between stays	30	6 months between stays
NON-GROUP	M-75 Non-Group (under age 65)	30	Not available	3 months between stays	30	6 months between stays
	M-75 Non-Group (over age 65)	30	Not available	3 months between stays	30	6 months between stays

BLUE CROSS CONTRACTS

	TYPE OF CONTRACT	DAYS OF CARE	TOTAL DAYS WITH RIDER	RENEWAL PERIOD
GROUP	Comprehensive Hospital Group	120	365 (Rider D)	3 months between stays
	$50 Deductible Group	120	365 (Rider D)	3 months between stays
	Economy Group	30	120 or 365 (Rider EE or DE)	3 months between stays
GROUP CONVERSION	Comprehensive Hospital Group Conversion	30	Not available	3 months between stays
	$50 Deductible Group Conversion	30	Not available	3 months between stays
	Economy Group Conversion	30	Not available	3 months between stays
NON-GROUP	Non-Group (under age 65)	30	Not available	3 months between stays
	Non-Group (over age 65)	30 Ward Only	Not available	3 months between stays

NEW RIDERS TO BLUE CROSS-BLUE SHIELD

RIDER F may be added to any combination of group hospital and M-75 contracts to provide group benefits at group rates for unmarried children of 19 to 25 years of age who are dependent upon the subscriber for more than half their support.

RIDER S may be added to any combination of group hospital and M-75 contracts to provide coverage for group conversion benefits at group conversion rates to persons, regardless of age, who are dependent on the subscriber for more than half their support and who

SHIELD CONTRACTS IN BRIEF

CLASS I SERVICES: In-hospital medical care; surgery; obstetrical delivery; professional anesthesia; first aid.	CLASS II SERVICES: Technical surgical assistance; consultations; outpatient and office lab services; diagnostic and therapeutic x-ray.	OTHER DEDUCTIBLES	INCOME CERTIFIED
Service benefits for Plans A, B and C*	Member pays greater of $5 or 10% of M-75 scheduled fee*	None	Yes
Service benefits for Plans A, B and C*	Member pays greater of $5 or 10% of M-75 scheduled fee*	Greater of $10 or 20% of scheduled fee for in-hospital medical care and surgery.	Yes
Service benefits for Plans A, B and C*	Member pays greater of $5 or 10% of M-75 scheduled fee*	None	No
Service benefits for Plans A, B and C*	Member pays greater of $5 or 10% of M-75 scheduled fee*	None	No
Service benefits for Plans A, B and C*	Member pays greater of $5 or 10% of M-75 scheduled fee*	Greater of $10 or 20% of scheduled fee for in-hospital medical care and surgery.	No
Service benefits for Plans A, B and C*	Member pays greater of $5 or 10% of M-75 scheduled fee*	None	No
Service benefits for Plan A*	Member pays greater of $5 or 10% of M-75 scheduled fee*	None	No

**Participating doctors guarantee service benefits for members in Plans A, B and C if the subscriber's income is within the limit for his Plan (Plan A, $2,500; B, $5,000; C, $7,500; D, $7,500 or more), unless the member chooses a private room.*

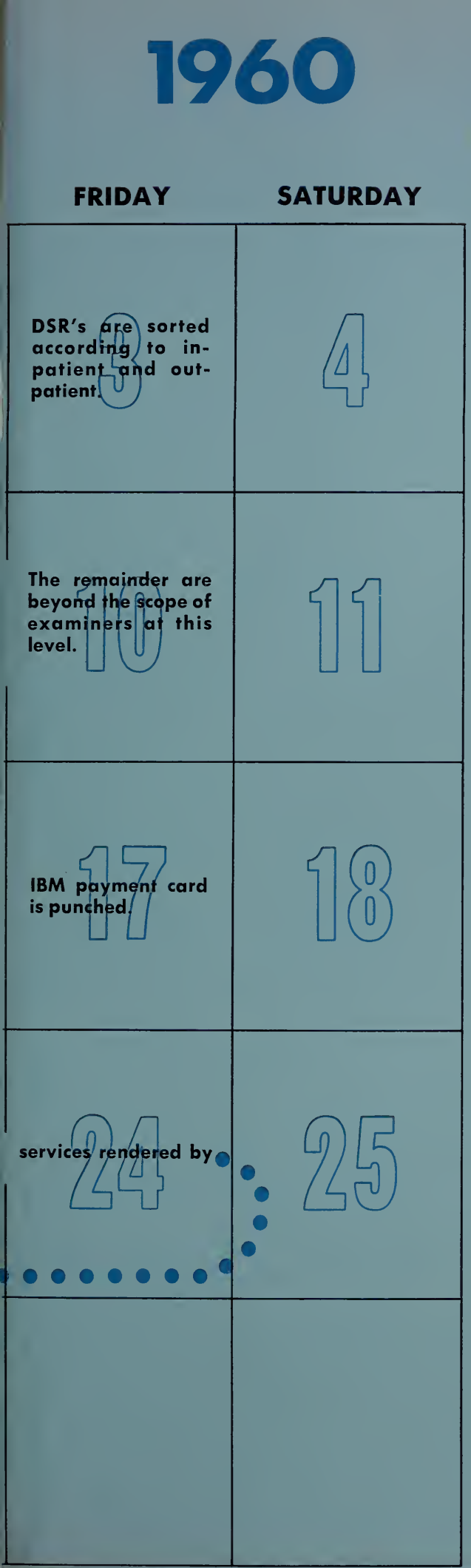
DAYS FOR MENTAL, NERVOUS, TB	RENEWAL PERIOD	SERVICE BENEFITS	DEDUCTIBLE	MATERNITY
30	6 months between stays	Yes	None	Service benefits
30	6 months between stays	Yes, other than deductible.	First $50 of contract benefits	Service benefits
30	6 months between stays	Room services limited to $14 per day.	None	Full contract benefits.
30	Not renewable	Yes	None	Room services of $14 per day.
30	Not renewable	Yes, other than deductible.	First $50 of contract benefits	Room services of $14 per day.
30	Not renewable	Room services of $14 per day.	None	Full contract benefits
30	Not renewable	Room services of $14 per day	None	Room services of $14 per day
30	Not renewable	Yes, other than deductible.	Greater of $25 or 20% of first $500 of contract benefits.	None

are related to the subscriber by blood or marriage, or who are members of his household.

These riders are available if the dependent qualifies as an income tax exemption and has been reported as such on the subscriber's income tax return, and if the subscriber's employer makes the payroll deduction mechanism available for the collection of subscription dues or if the group subscribers are billed directly by Blue Cross-Blue Shield (Example: enrolled members of the Michigan State Medical Society). The cost of the S or F riders will be included in the subscriber's billing.

1960 JUNE

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
			1 Incoming mail is opened; date of receipt is stamped on each DSR.	2 IBM card is punched for each DSR for accounting purposes. DSR is checked to determine such information as whether doctor is licensed, whether he participates.
5	6 DSR is checked against hospital admission records or enrollment records to determine patient's eligibility for benefits. If DSR carries incorrect or incomplete information, Blue Shield corresponds with doctor or subscriber to obtain full and correct information. If DSR checks out correctly, the patient's eligibility is certified and the DSR is sent to the claims examiners.	7	8	9 About 70% of claims are handled routinely by Primary or Intermediate claims examiners.
12	13 The 30% of claims not handled by Primary or Intermediate examiners are reviewed by Senior examiners. An additional 29% are handled routinely by this group; the remaining 1% is handled by the Medical Director and his staff or is referred to the various county medical advisory committees.	14	15 DSR data are posted for statistical use.	16
19	20 Payment cards are accumulated for from 8 to 12 working days so that payment for up to 1 a single doctor may be accomplished with one check in one mailing.	21	22	23
26	27	28	29 Check is mailed to doctor.	30



PAYING THE DOCTOR

READING TIME: 1 MINUTE, 15 SECONDS

Each working day, the mailman delivers about 8,500 Doctor's Service Reports to Michigan Blue Shield.

Thus begins a many-stepped process that ends about 30 days later with the mailing of a check covering payment for the doctor's services to Blue Shield members.

To oversimplify, the process of handling claims involves only three basic questions: 1) Is the patient eligible for benefits; 2) Is the doctor eligible for payment; 3) What is the doctor's fee. Handled individually by a single human being, the process would be short and simple—perhaps a matter of minutes.

But, multiply those few minutes by 8,500 and add such modern requirements as accounting and record-keeping, and the process grows.

But, modern business' intricate organization, its tendency to compartmentalize and to specialize, its mass-production approach to paperwork — in short, its use of complex methods to solve simple problems—pays off in the end: At Michigan Blue Shield, it takes only about 45 claims examiners to handle those 8,500 DSR's daily — as many as 500 claims per person per day.

For the sake of economy, as well as efficiency, Blue Shield accumulates approved claims so that a number of services (up to 17) for a given doctor may be paid with one check in one mailing. The savings in materials, time and postage (for Blue Shield) and in accounting and banking chores (for the doctor) are considerable.

However, not all DSR's reap the benefit of this efficient claims-processing system: About 25 per cent of DSR's come to Blue Shield bearing misinformation or too little information, resulting in time-consuming correspondence with doctors or subscribers. In these cases, payment may be delayed by as long as 90 days.

The chart at left is a graphic representation of time and sequence in the process of paying the doctor.

WHAT JOHN Q. DOESN'T KNOW HURTS YOU!

BY J. S. DeTAR, M.D.

READING TIME: 5 MINUTES, 45 SECONDS

If you think John Q. Public is naive in the field of electronics, high finance or astronomy, you haven't seen him in a hopeless struggle with the intricacies of prepayment health care plans.

I can't think of many situations in which the average person is as helpless as in his attempts to understand his benefits when receiving services in a prepayment program.

Even his annual bout with the Bureau of Internal Revenue doesn't produce the bewilderment and frustation that he experiences when wrestling with the mysteries of prepayment.

If Uncle Sam's income tax returns and procedures are too much for him, he can, and frequently does, go to a tax expert and, for a few dollars, rids himself of the problem.

True enough, if the details of his Blue Shield coverage are too much for him, he has recourse to expert advice here, too, since Blue Shield maintains a staff of trained personnel whose job is to give personal help to the subscriber with problems of his coverage.

But there's a basic difference in the two situations. John Q. is wise enough to go to the tax expert before the damage is done, not later. However, in the case of his Blue Shield coverage (or any prepayment coverage, for that matter), he is not apt to give it a thought until he has occasion to use it—after he has already blown his top at the doctor and/or Blue Shield about that "extra" charge from the doctor for a service that he thought was covered by his contract.

I assure you that if you have ever known the resentment — born of ignorance — of a confused patient in these circumstances, you need not feel that you are alone.

Why doesn't the patient know what he's entitled to? Well, I think the trouble lies in the fact that when John Q. Public gets involved with prepaid health care, he enters the (to him) esoteric worlds of 1) Prepayment and 2) Medicine, two highly special-

ized and complex fields. And the individual who is familiar with both is a rare specimen.

When an individual buys coverage from—say, Blue Shield —he does so only after receiving literature which, next to the contract itself, is about as complete a description of the benefits offered as could possibly be devised. Blue Shield, for example, realizes that it has an obligation to inform the consumer of the features of the product it offers for sale, and it expends a great deal of time, effort and money to tell him (usually in no less than 1,500 words) about the benefits for which he is contracting. Blue Shield gives him a complete rundown on the product. Blue Shield tells him what he is getting, how it works, how long it will last and how much it costs. Simple, isn't it?

Well, it would be if the product were an automobile or an automatic washer or a new home — items that are familiar to practically everyone between 10 and 100 years of age. When you tell John Q. that the car has an automatic transmission and a V-8 engine, or that the automatic washer has a temperature control and three water levels or that the new house has a dining ell and bath-and-a-half, he knows what you are talking about. Very little education is required; a mere description suffices.

But when the product is medical care, merely describing benefits doesn't do much for the purchaser because the field is so foreign to him. He doesn't know the terminology, he doesn't know medical procedures. He can't relate the doctor's actual medical procedures to his benefits unless he is taken by the hand and led through an explanation (He knows that he has filled a bottle, but does he know this as a step in a laboratory service? He knows that you've taken three X-ray films, but does he know this may be an "X-ray study" and not three individual services?).

Far beyond his depth in a world that is strange to him, and at a time when psychologically, he is at a disadvantage, he is ill-equipped, particularly when his mind is on his illness, to understand and remember what is being done to him medically and then to refer to Blue Shield literature in an attempt to learn to what degree his treatment is prepaid. In the vast majority of cases, it is too much for him.

But, with benefit of a few minutes of explanation from his doctor, he can know not only what is being done for him, but also what it probably will cost over and above the Blue Shield benefit.

Of all parties involved, the physician is in the best possible position to give the patient a pretty good idea of what the patient's liability will be in a given case because the physician has the readiest knowledge of the factors that determine that liability; that is, he knows whether or not he is a "participating physician," he knows Blue Shield benefits (or has ready access to such knowledge); he knows what his normal fee is; he knows what the Blue Shield payment is (he has a copy of the schedule of Blue Shield fees); above all, he, better than anyone else, knows what service was rendered—how, why and to what degree. With this information, the physician can give the patient a fairly close estimate of what portion of the cost of the service is to be borne by the patient.

The physician who does so performs an excellent service — not only to the patient but to his good relationship with that patient.

Most physicians will agree — this far. But it is not enough merely to make this information available to the patient only if and when he asks for it — because he probably won't ask for it. Very few patients can bring themselves to introduce the matter of finances in a conversation with the doctor. I don't know why and I haven't spoken to any motivational researchers lately, but people seem to be afraid of doctors. The opinionated, strong-minded layman who would not hesitate to question the judgment of the Deity is as a timorous child when face to face with his doctor. "You're the doctor!" is what he says and believes — in the office. But, this doesn't prevent him — in the safety of his home and in the circle of his friends — from giving vent to anger over the financial aspects of his treatment.

So much has been written on "how to keep your patients happy" that it would seem almost a bore even to talk about the subject. But, apparently, and commendably, the average physician does care about good relationships with his patients, and so it's worth giving additional thought to the subject.

To avoid being accused of a singular naivete, I hasten to point out that the practice of giving the patient a little advance warning of any out-of-pocket expenses that he may have to bear for medical services is no magic key to *perfect* patient-doctor relationships. But, I insist that such a practice will in most cases, maintain and improve the feeling that a patient has for his doctor.

Furthermore (and don't underestimate this value), even if

such a policy does nothing to improve a particular patient's attitude toward his doctor, it will at least remove some handy ammunition that the patient may seek if his real complaint is of the variety that he can't even admit to himself (he doesn't like your office manner or the way you part your hair or the magazines in your waiting room, or through some incredible process of logic, he blames you because he got sick). At least he won't be able to paint you as an ogre who lulled him into a sense of security and then shattered his serenity with a big bill.

The lesson seems clear. A patient who knows in advance what his out-of-pocket expenses are going to be, is obviously apt to be better prepared for, and less shocked by, a statement from the doctor for service not fully covered or not covered at all by Blue Shield.

Now, I do not propose that it be the physician's responsibility to explain an entire prepayment program to a patient. Obviously, the physician cannot and ought not permit himself to be imposed on in this way. But what he (or, alternately, a qualified medical assistant) can do is to take just a minute or two to let the patient know what medical services are being performed in his particular case and the degree to which those specific medical services are covered by prepayment.

This type of help for the patient heads off much of the confusion, disappointment, and resentment that otherwise might well develop from a lack of understanding.

I think that you'll find that even a little of this kind of help will go a long way toward making your patient happy as well as healthy.

BLUE SHIELD PROFESSIONAL RELATIONS CONFERENCE

READING TIME: 2 MINUTES, 45 SECONDS

Speaking at the annual Blue Shield Professional Relations Conference in Chicago, MALCOLM L. DENISE, Vice-President-Labor Relations, Ford Motor Company, asserted that as employers and industrial citizens of the community, business management today has an important stake in hospital and medical care. He said that Blue Shield service-type programs represent the medical profession's strongest bulwark against the intrusion of government or powerful private economic groups in the field of medical practice.

Mr. Denise expressed his faith "in voluntary programs and the ability of the professions and community organizations involved to fulfill the needs of our people. I am encouraged in this faith by the increasingly abundant evidence that our doctors, our hospitals and our voluntary community organizations are conscious of the problems and are aware of their responsibilities and means of meeting them. Given this awareness and attitude, I feel confident that they will be met within the framework of our free institutions."

DONALD STUBBS, M.D., Chairman of the Board of Directors, Blue Shield Medical Care Plans, discussed the dual function of a Blue Shield Plan's governing board. Dr. Stubbs said that one function is to preserve and enlarge the plan as the economic vehicle intended to protect private enterprise by voluntary prepayment. The other, he said, is "to keep physicians at the management level of this system of prepayment by their trusteeship purchased through the commitment of individual doctors and of the medical profession." Said Dr. Stubbs: "Only if Blue Shield retains and enlarges the physician commitment and expands and strengthens this keystone of the prepayment movement, only then can we have our best chance to save our free profession and to keep our free profession in a free society."

BARRON K. GRIER, legal consultant to Blue Shield Medical Care Plans and a member of the law firm of Miller and

Chevalier, Washington, D.C., urged all Blue Shield Plans to continue to work together in combatting Forand-type legislation. "I think that great things have been accomplished," said Mr. Grier, "but I don't believe we can look back. I think we have to look at the future and that even greater things can be accomplished if Blue Shield Plans can go down the road together as full partners in accomplishing that fact."

Speaking of the future of voluntary prepayment, Mr. Grier said: "If we can provide more health care for more people, both young and old, then the future is bright. If we cannot, then I think the pressure for the government to step in and do so will be irresistible and we will begin to die on the vine."

JOHN B. RECKLESS, M.D., a resident at Duke University Medical Center and a former practitioner under the British National Health Service, said that the medical profession in Britain was unable to forestall government medicine in Britain because the profession lacked cohesive organization and public support. He said that lack of an organization to meet the government program on the same "ruthless footing" enabled the government to employ divide-and-conquer tactics as its primary weapon against doctors.

Dr. Reckless said that the threat of government medicine definitely exists in the United States, but added: "I think you have in prepayment medical plans an effective challenge to government-sponsored health insurance." He said Blue Shield Plans especially represented "one answer to the situation which you have here in America."

THOMAS C. PATON, Michigan Blue Shield's Director of Professional Relations, also called attention to the growing threat of government medicine, and said that Blue Shield Plans and their Professional Relations staffs must share the responsibility for combatting it.

Said Paton: "We must give medicine all the help we can in terms of providing information on medical economics and in terms of evaluating that information. And we must give medicine the full benefit of our knowledge and our honest advice, telling them what we believe to be true and right, and not necessarily what we think medicine would like to hear. If we fail to live up to this responsibility, medicine may well be swallowed by government."

MICHIGAN MEDICAL SERVICE

PAYMENTS FOR SERVICES TO SUBSCRIBERS BY RESIDENCE OF DOCTORS RENDERING SERVICE FROM MARCH 1, 1940 THROUGH DECEMBER 31, 1959

1.	Alcona	$ 71,579.25	.02%
2.	Alger	61,867.00	.02
3.	Allegan	727,853.34	.19
4.	Alpena	1,608,164.81	.43
5.	Antrim	62,179.25	.02
6.	Arenac	194,959.65	.05
7.	Baraga	258,663.40	.07
8.	Barry	315,844.40	.08
9.	Bay	5,614,085.39	1.48
10.	Benzie	177,824.33	.05
11.	Berrien	2,368,915.64	.63
12.	Branch	987,885.63	.26
13.	Calhoun	3,636,068.98	.96
14.	Cass	146,759.38	.04
15.	Charlevoix	402,519.85	.11
16.	Cheboygan	621,750.33	.16
17.	Chippewa	2,024,072.32	.54
18.	Clare	87,648.72	.02
19.	Clinton	1,262,133.46	.33
20.	Crawford	286,107.11	.08
21.	Delta	655,675.75	.17
22.	Dickinson	553,776.86	.15
23.	Eaton	864,329.05	.23
24.	Emmett	1,754,472.42	.46
25.	Genesee	24,822,639.15	6.57
26.	Gladwin	219,937.19	.06
27.	Gogebic	340,113.42	.09
28.	Grand Traverse	2,298,767.74	.61
29.	Gratiot	725,666.34	.19
30.	Hillsdale	880,252.43	.23
31.	Houghton	834,909.42	.22
32.	Huron	906,055.05	.24
33.	Ingham	12,540,368.81	3.32
34.	Ionia	1,114,919.30	.29
35.	Iosco	393,419.88	.10
36.	Iron	110,781.00	.03
37.	Isabella	1,258,626.49	.33
38.	Jackson	2,324,020.68	.61
39.	Kalamazoo	4,281,067.69	1.13
40.	Kalkaska	26,132.00	.01
41.	Kent	14,412,487.43	3.81
42.	Keweenaw	2,900.50	
43.	Lake	8,923.00	
44.	Lapeer	1,064,261.88	.28
45.	Leelanau	195,004.96	.05
46.	Lenawee	1,398,736.10	.37
47.	Livingston	$ 673,546.40	.18%
48.	Luce	237,579.25	.06
49.	Mackinac	55,932.88	.01
50.	Macomb	6,193,977.16	1.64
51.	Manistee	284,173.78	.08
52.	Marquette	1,501,453.10	.40
53.	Mason	425,307.85	.11
54.	Mecosta	418,559.23	.11
55.	Menominee	327,633.80	.09
56.	Midland	202,980.08	.05
57.	Missaukee	236,864.13	.06
58.	Monroe	1,273,834.96	.34
59.	Montcalm	838,417.84	.22
60.	Montmorency	16,600.50	
61.	Muskegon	2,506,709.58	.66
62.	Newago	294,316.62	.08
63.	Oakland	21,844,932.65	5.78
64.	Oceana	456,484.51	.12
65.	Ogemaw	487,590.93	.13
66.	Ontonagon	291,150.30	.08
67.	Osceola	416,309.64	.11
68.	Oscoda	1,847.00	
69.	Otsego	260,055.95	.07
70.	Ottawa	1,620,633.48	.43
71.	Presque Isle	419,911.60	.11
72.	Roscommon	40,900.00	.01
73.	Saginaw	11,287,218.63	2.99
74.	St. Clair	4,183,230.07	1.11
75.	St. Joseph	607,799.60	.16
76.	Sanilac	532,760.61	.14
77.	Schoolcraft	276,458.00	.07
78.	Shiawassee	2,337,702.25	.62
79.	Tuscola	939,724.29	.25
80.	Van Buren	1,338,443.68	.36
81.	Washtenaw	13,867,789.91	3.67
82.	Wayne	156,048,604.87	41.28
83.	Wexford	938,107.63	.25
	Total	$328,581,669.54	86.92
	Total Michigan M.D.s	$328,581,669.54	86.92
	Out-of-State Doctors and Unclassified	8,677,637.98	2.29
	Paid to Osteopaths	40,809,394.15	10.79
	TOTAL	$378,068,701.67	100.00

A Defense of Conservative Treatment for Acute Cholecystitis

David McCubbrey, M.D.
E. Thurston Thieme, M.D. F.A.C.S.
Ann Arbor, Michigan

THE CHOICE of treatment for acute cholecystitis has and still does provide reason for discussion. Immediate operation presumes a correct but frequently unconfirmed diagnosis and accepts the dangers of nonelective operation while offering a possible reduction in hospital stay. Conservative treatment with delayed operation accepts the dangers of perforation of the gallbladder and pericholecystic abscess, while offering possible surgery of election, after completion of diagnostic studies and thorough evaluation and preparation of the patient for operation. Which method of treatment provides the best care for the patient is still open to discussion. This statement is particularly true if it is realized that methods of treatment giving excellent results at one institution may be harmful or inappropriate if applied indiscriminately to another hospital.

TABLE I. ADMISSIONS FOR ACUTE CHOLECYSTITIS
345 Cases

Surgery Performed this Admission	191 Cases 9 Deaths 4.7%
No Surgery Performed—Discharged	154 Cases No Deaths

Patient Refused Surgery	Other Disease Paramount	Normal X-Rays	Medical Care	To Return For Surgery
14	41	21	58	20
Returned For Surgery				
4	7	0	24	12

47 patients returned for surgery—30%.

Conservative treatment has been the policy at St. Joseph Mercy Hospital in Ann Arbor for many years. Although during this study there were cases not energetically treated, surgical consultation was obtained for all problem cases and it can be stated that no patient needing treatment for acute cholecystitis languished or died on the medical service. All patients with a history, physical examination and laboratory data sufficient to require treatment for acute cholecystitis were considered to have acute cholecystitis and so are included in the series to be reported. None were treated by "immediate, prompt, or early surgery" as meaning surgery done as quickly as the patient's condition would permit. Therefore, treatment was conservative in all cases, meaning operation was delayed if possible until the disease was quiescent and the indicated diagnostic studies completed. The results of this policy are presented as a defense for conservative treatment with the hope that organized community hospitals will reconsider its benefits.

TABLE II. EMERGENCY ADMISSIONS FOR ACUTE CHOLECYSTITIS—SURGERY PERFORMED
191 Cases

Operation	Cholecystectomy	Deaths	Cholecystostomy	Deaths
Elective	121	1	5	0
Urgent	33	1	16	1
Emergency	5	1	11	5
Totals	159	3 or 1.9%	32	6 or 18.7%

Material and Results

During the five year period 1952 through 1956, 345 patients were treated conservatively for acute cholecystitis. Of this number, 154 or 44.3 per cent were discharged without surgery being performed. The reasons for discharge are listed in Table I. The possible impact of immediate operation on this group cannot be stated except that the mortality could not have been lower as there were no deaths. Undoubtedly an aggressive attitude toward immediate operation could have led many of these patients to operation within forty-eight to seventy-two hours. In contrast, conservative treatment provided restraint for the surgeon and a better evaluation for the patient.

An operation was performed on 191 patients during their hospitalization. Table II summarizes the operations performed. Elective surgery followed successful

Presented at the meeting of the Michigan Chapter of the American College of Surgeons in Detroit, March 10, 1959.
From Surgical Service, St. Joseph Mercy Hospital, Ann Arbor, Michigan.

conservative treatment in 126 cases with one death, considered due to a ruptured dissecting aneurysm of the abdominal aorta occurring on the sixth postoperative day. Five cholecystostomies were done, therefore, the cholecystostomy rate was 4 per cent.

aside from progressive deterioration of an aged patient. The twenty-seven patients with unsatisfactory courses are actually the only patients whose disease was uncontrolled by conservative means. Of the six deaths in this group, three patients were operated upon within

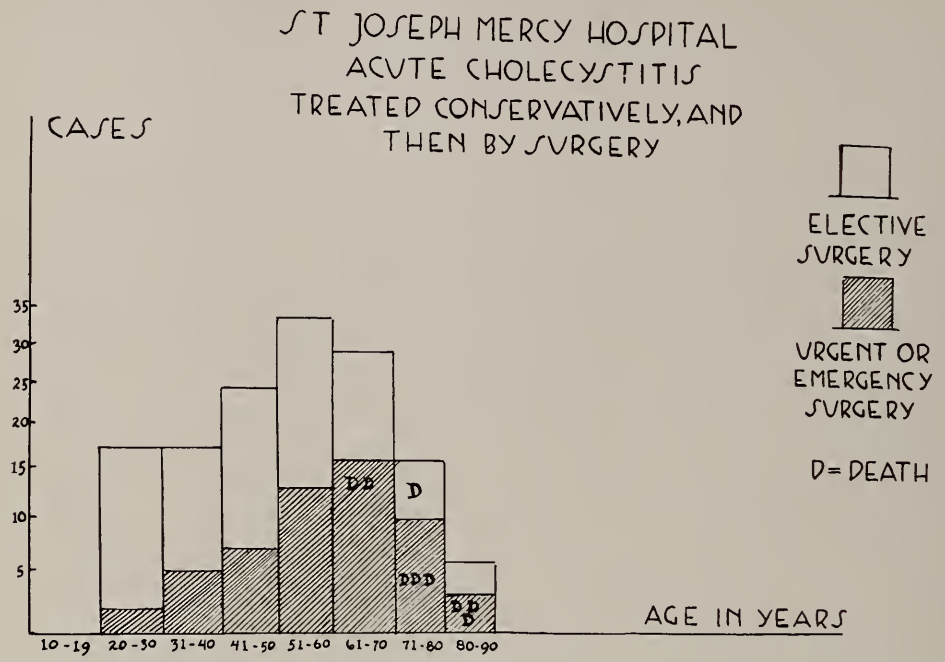


Fig. 1.

The remaining sixty-five patients required urgent or emergency operation during the course of their treatment. This group has been labeled the price or risk of conservative treatment. Eighty per cent of the patients in this group were over fifty years of age. There were eight deaths and a cholecystostomy rate of 40 per cent. The high cholecystostomy rate is indicative of the severity of the disease in this group of patients and is a result of the best judgment of the surgeon at the time of operation in this predominately aged and poor risk group of patients.

The reasons for urgent or emergency operation are tabulated in Table III. Those with continuing jaundice represent failure to relieve obstruction of the common duct. There were no deaths in this group indicating good conservative management. The second group presents the problem of a delicate balance between the cholecystic disease and the clinical condition of the patient. The single death in this group was from a sudden pulmonary embolism on the 11th postoperative day. Status quo unchanged means that the cholecystic disease was controlled at a safe level but was unsatisfactory clinically. The death here was in an eighty-two-year-old diabetic on the 30th postoperative day, the cause for which was undetermined

TABLE III. REASONS FOR URGENT OR EMERGENCY SURGERY IN 65 OF 345 CASES OF ACUTE CHOLECYSTITIS

Continuing Jaundice	Best Judgment of Surgeon	Status Quo Unchanged	Course Unsatisfactory
12 Cases No Deaths	11 Cases 1 Death	15 Cases 1 Death	27 Cases 6 Deaths

seventy-two hours, and a fourth on the fourth hospital day. The causes of death in those patients with autopsy were necrotizing pancreatitis, right heart failure, and pulmonary embolism. The three deaths without autopsy were considered to be due to cardiac arrest occurring at the termination of operation, myocardial infarction with pulmonary atelectasis, and a "liver death," with deepening jaundice and a rising NPN.

Glenn,[1] in a survey of the causes of death following gallbladder surgery, noted a sharp drop in shock, infection, and hemorrhage as a cause of death, but an increase of cardiovascular and pulmonary deaths was found. The drop in infection was attributed to the elimination of the hazard of perforation of the gallbladder by a policy of immediate surgery for acute cholecystitis. In this series, perforation of the gall-

bladder was seen four times and pericholecystic abscess six times with no direct effect on the mortality. Therefore, these possible complications do not seem valid arguments for immediate operation. Also, we doubt that immediate operation will reduce the mortality in acute cholecystitis since four of our deaths were operated upon within seventy-two hours and a fifth on the fourth hospital day. The problem of surgery in the aged patient is illustrated in Figure 1. The causes of death are those of any surgery in the aged patient.

TABLE IV. COMMON DUCT EXPLORATION

Surgery for Chronic Gall Bladder Disease		Surgery after Admission for Acute Cholecystitis	
Cholecystectomy	Common Duct Exploration	Cholecystectomy	Common Duct Exploration
407	104 or 25%	159	66 or 41%
Stones recovered	16 or 15%	Stones recovered	33 or 50%

Coller[2] has stated that it is unwise to persist in conservative treatment for acute cholecystitis for more than forty-eight hours when it is apparent that the patient is not responding to treatment, and we would wholeheartedly agree. In this series, however, prolonged conservative treatment cannot be shown to be the factor explaining the mortality. We should like to emphasize the beneficial results of elective cholecystectomy for the patient with known gallbladder disease, but we strongly doubt that a policy of immediate operation for the aged and poor risk patient with acute cholecystitis will alter the high mortality in this group of patients.

Many authors have emphasized the danger of common duct damage during surgery for acute cholecystitis. Our experience with common duct exploration is presented in Table IV. Twenty-four of the cases, or 36 per cent of the common ducts explored, were in the urgent or emergency group. The high rate of positive exploration in the acute group, 50 per cent, in contrast to the chronic group, 15 per cent, indicates that the less urgent indications for common duct exploration were ignored while operating in the presence of acute cholecystitis. Seven of the patients undergoing common duct exploration required re-operation for retained common duct stones. The overall incidence of common duct stones in the entire group of 345 patients was 16.7 per cent, or approximately one patient out of six. The common duct was damaged on one occasion, but this was immediately recognized and repaired. We know of no biliary cripples created in this series of patients. In addition, anomalies of the biliary tree were recognized in six cases and no damage done.

Pathologic examination in the operative cases confirmed the diagnosis of acute cholecystitis in all cases with only two exceptions in which chronic low grade cholecystitis was present. Cholelithiasis was present in all but five operative cases.

Discussion

The conservative treatment of acute cholecystitis, meaning the proper use of gastric suction, intravenous fluids, antispasmodics and antibiotics, has little glamor and few backers in contrast to immediate surgery which is popular and advocated as a principle for all surgical services. We have endeavored to show that conservative treatment can produce acceptable results which stand comparison with the results of immediate operation. Immediate operation as a policy for the average community hospital, where the majority of the gallbladder surgery in this country is done, could lead to much ill-advised surgery. It is true that some surgeons of outstanding ability could apply the principles of immediate operation to their own practice with success, but they must also bear the responsibility for their imitators. Conservative treatment offers restraint to the surgeon, a better medical evaluation for the patient, and acceptable results. Gallbladder disease can be confirmed by x-ray, and diseases such as acute pancreatitis, acute hepatitis, and myocardial infarction, in which operation is contraindicated, can be ruled out. We urge reconsideration of the advantages of conservative treatment for the average community hospital where clinical material is not controlled on services as in a large teaching hospital.

Summary

1. 345 cases of acute cholecystitis treated conservatively have been presented. The mortality for the series was 2.6 per cent, the operative mortality was 4.7 per cent.

2. The disease was controlled in 280 patients or 81.5 per cent, leading to discharge without operation in 154 and elective operation in 126 with one death. Thirty per cent of those discharged without operation subsequently returned for operation.

3. Urgent or emergency operation was required during the course of treatment in sixty-five cases. The reasons for urgent or emergency operations were discussed.

4. A review of the deaths indicated that the mortality was related to surgery in the aged patient rather

than complications of prolonged conservative treatment for acute cholecystitis.

5. The dangers of immediate operation for the average community hospital were discussed and conservative treatment proposed as a restraint to the average surgeon and as a means of obtaining a better medical evaluation for the patient.

6. A policy of conservative treatment will give good results if vigorously and intelligently applied.

Summary of Discussion

L. S. FALLIS, M.D., Henry Ford Hospital: In the early days of my surgical career, I followed a policy of immediate operation for acute cholecystitis since I received my training from men who believed in this method of treatment. A survey done at Henry Ford Hospital several years ago of the results of a policy of immediate operation convinced me that best results are obtained in patients who have conservative treatment and delayed operation, and I have followed that policy since. Good results can be obtained with either method of treatment in the younger patients with acute cholecystitis; the problem as presented today is in the older poor risk patient, and we feel they are best served with conservative management with the reservation that impending gangrene or perforation must be carefully watched for and treated as any other surgical emergency. I believe that the surgeons of this state owe Dr. Coller a great debt for his wisdom in advocating conservative treatment for this disease over these many years.

In our study we recognized that the diagnosis of acute cholecystitis can be made in three ways: there is the clinical diagnosis, made at the bedside, the surgical diagnosis, made at the operating table, and the pathologic diagnosis. I would like to know the criteria used by Dr. McCubbrey for the diagnosis of acute cholecystitis in this series.

DR. MCCUBBREY: We recognize that there can be a great disparity between the clinical, operative, and pathologic diagnosis of acute cholecystitis. Any series reporting on conservative treatment must, however, rely solely on clinical diagnoses. Previous series reported in the literature have set up certain rigid criteria applying to the physical examination or laboratory data before accepting the diagnosis of acute cholecystitis. It was our opinion, however, that no rigid criteria should be set up, but that the total evaluation of the patient's history, physical examination, laboratory data, and clinical course should be the only criteria since it is well recognized that a very serious cholecystitis can exist with little in the way of physical findings, temperature elevation, or leukocytosis. This is one of the arguments of those who advocate immediate operation, that perforation of the gallbladder can occur with little warning. Accordingly, we accepted those patients whose total evaluation warranted treatment for acute cholecystitis, and at least the patients operated upon had excellent correlation with the pathologic findings.

In conclusion, we would like to emphasize that what we are advocating is active, vigorous, conservative management with no unnecessary delay in operation in the event that the patient fails to respond promptly to treatment. We do not believe that merely "watching" a patient constitutes good conservative treatment.

References

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2. Buxton, R. W., Ray, D. K., and Coller, F. A.: Acute cholecystitis. J.A.M.A., 146:301, 1951.

X-Ray "Beauty Contest" Called Risky by Expert

Plans of chiropractors to x-ray pretty girls to choose a "posture queen" were denounced in April by the head of the radiology department of Wayne State University medical college as a "potential hazard."

James E. Lofstrom, M.D., declared that "any unnecessary radiation is to be avoided."

Doctor Lofstrom commented on plans of the Michigan Academy of Chiropractice for its sixth "beauty contest" in connection with its annual meeting in Detroit.

Spinal x-ray pictures were made to help select the "posture queen."

"They should be able to judge the shape of the spine by the exterior appearance of the young woman," Professor Lofstrom said.

"Radiologists attempt to confine x-ray exposure as locally as possible. This x-raying of the spine will mean exposure of the gonads to unnecessary radiation and the effect of this is regarded as a potential hazard."

The Changing Image of Medical Care

Harry J. Loynd
Detroit, Michigan

AN INVITATION to speak on the program of this distinguished Institute is an honor. When your invitation was extended to me, I was most pleased to accept. I was requested to deliver the pharmaceutical lecture, and, I presume, it is expected that I should talk about drugs, or at least about the drug business and the pharmaceutical profession. With your permission, I shall utilize my time on this program for a somewhat different purpose, and leave the assignment of telling you about our products to our highly capable detail staff and to your own retail pharmacists.

The subject I have selected for my remarks, "The Changing Image of Medical Care," was chosen because I believe that it is something we should recognize and a subject which is, or should be, of deep concern to us. I would like to explore this topic with you.

The public's concept of adequate and proper medical care *is* changing, in some respects for the better, in others for the worse. They appreciate the ministrations of the medical profession, but not always its ministry.

There are, of course, many reasons for this, not the least of which is the avidity with which all news media respond to medical news, both good and bad. Perhaps, too, in light of this interest, the traditional professional reserve and total devotion of the physician to his strictly professional duties, has made it appear that he resists any change in his environment.

Dr. Frank Slaughter, as reported in the *Journal of the Florida Medical Association*, as part of a talk entitled, "The Physician in a Troubled World," has this to say, "Perhaps the most deadly form of conformity, as applied to doctors, is the widespread belief that a man of medicine must be isolated from the affairs of the world. Medicine must always deal not simply with disease but with the whole man in relationship to society, for man cannot long remain healthy in an unhealthy society. The great men of medicine have all been outstanding as intellectuals, as philosophers, or in other ways. One needs only to read the writings of Sir William Osler and Oliver Wendell Holmes to realize this truth once again. Even Rudolf Virchow, father of cellular pathology, left his microscope long enough to write: 'People must feel that they belong together, not on account of a common ancestry, which they perhaps do not have . . . but on account of a spirit in which they live together.' What better credo could be laid down in these troubled times when the nations of the world must stand together for peace, or fall separately into oblivion?"

Since you have been kind enough to invite me, a non-physician, to talk on this program, I would like to immediately establish a common ground for discussion and to emphasize that I have no feeling of hesitancy in making a few observations or in mentioning some problems which, in my opinion, should be considered by the medical profession. Let me explain that my lack of trepidation in this assignment is due to the fact that the ethical pharmaceutical manufacturers, whom I represent, are, today, so intimately and directly concerned with the problems of medicine and their solution, that we could not possibly place ourselves in a position of a totally disinterested observer, even if we wished to do so. Our success and our future survival are totally dependent upon the well-being of the private practice of medicine. We have a proprietary interest in any problem or any program of the medical profession. We must, therefore, have and maintain, a complete familiarity with medical practice and a continuing determination to further everything that is good for our democratic

THE AUTHOR
Harry J. Loynd

Mr. Loynd is President of Parke, Davis & Company.

concept of medical care, and to oppose every effort to dilute or destroy it. In short, I would like to have you consider my remarks as those of an "inside-outsider," and of one who is deeply conscious of the fact that your problems are, in part, our concern as well.

I would like also to eliminate any impression which my introduction as a "pharmaceutical lecturer" might have given. It is not my intention to lecture this group of practicing physicians as a professor would before a group of students. Rather, I would ask that you consider my remarks as those of a professional colleague who is just as deeply concerned with the problems of medicine as are any of you, and who is, in fact, perhaps even more so when you consider the point I have already made that the survival of the ethical pharmaceutical manufacturing industry is totally dependent on your survival as an independent element of the free enterprise system.

I would ask that you gentlemen consider that some of the problems of the pharmaceutical manufacturers are also your problems, and that the way in which both your profession and ours conduct their activities are mutually important and mutually contributory. Of more immediate concern is the fact that the public is immensely interested in our business and your profession and have been inclined, particularly in recent years, to take an almost intrusive interest in us.

Today, health, or the lack of it, which we call disease, is no longer entirely a personal thing, it is not even an insular thing. Health is everybody's problem and everybody's business—and there is getting to be an astronomical number of "everybodies." In 1957, the world population was estimated as almost three billion persons and in 1958 were added another forty-seven million. In one year, the total world population was increased by more people than the populations of *all* the New England states plus those of New York, New Jersey, Pennsylvania and Maryland. Further, it is expected that within the next twenty years the total population of our world will increase to over four billion people. Since this population explosion is by no means confined to far away foreign areas, we must be more than casually interested and concerned. As colleagues in the business of medical care, we must recognize the immense problems this population bulge will create for our health team in the future. We in the pharmaceutical manufacturing industry have tried to recognize this huge population increase by the expansion of our research and production facilities, with particular reference to our world-wide operations. We feel that the medical problems of the rest of the world are of more than academic interest to us in this country and, in fact, that expansion of our facilities to the other continents might well be considered as a constructive kind of statesmanship. In the long run, drugs which cure or suppress malaria in India or control yaws in Africa may prove to be more decisive weapons against tyranny than intercontinental ballistic missiles.

As population grows, so will increase the already widespread interest in medical care and in therapy itself. We have seen, in the past few years, a revolution in the public reporting of medical and scientific progress throughout the world. Whether we approve or not, the fact remains that all peoples have developed an almost insatiable appetite for medical information. News media have discovered that the reporting of such information is of greater reader interest than almost any other subject. This intense concentration of attention on our professions has been, perhaps, a blessing in disguise. We in the pharmaceutical manufacturing industry frequently have been embarrassed by premature publicity of our research efforts. The medical profession has been equally disturbed by public demands for medications which have not even had satisfactory clinical trial before the public knows more about them than do you. Perhaps, however, we should not be too disturbed by this somewhat premature reporting of medical advances if we consider the public's appetite for this type of information as an indication of their earnest desire for better medication and greater disease prevention. Rather, we should take the necessary steps to see to it that the information the public receives is accurate and free from exaggerated or unwarranted claims. Unfortunately, we have not as yet done very much to insure this type of accurate medical reporting or to eliminate sensationalism and wishful thinking from medical information furnished to, or acquired by, public reporters. We tend to scream in anguish over exaggerated medical articles in public journals but we, too often, do little or nothing to insure the accuracy of such reports. In fact, we sometimes try to cloak ourselves in an "ivory tower" atmosphere of mystery and erudition which is illogical. We are both living in a medical "goldfish bowl," in an age when everything an industry or profession does is open to immediate public reporting and opinion. We are subject to scrutiny which can rapidly become highly critical if great care is not exercised to insure that the public understands our activities. In this connection, I am reminded of an article which appeared in a recent issue of *Medical Economics,* entitled, "You're Not

Running a Private Concession!" In this article, Dr. Norton S. Brown, president of the New York County Medical Society, states that, "While medicine used to be entirely a private enterprise, it is changing to the character of a public utility." He says, "Medicine used to be a private concession operated by doctors for doctors. It is now becoming a public utility operated by doctors in cooperation with other segments of society."

It is entirely possible that the pharmaceutical industry is also assuming some characteristics of a public utility, at least to the extent that is evidenced by public interest in our products and in our research program, and by the attention devoted to us by political and governmental groups.

Here again perhaps we should be complimented, rather than frightened, by this sometimes irritating attention. It indicates that medical care is a vital public issue, and, therefore, deserving of political attention as a factor which will influence voters toward those politicians who make use of its obvious position in the public consciousness.

The American medical profession, and its ancillary services, including pharmaceutical manufacturers, have set a standard for the world. Through the achievements of our research programs, and the capacity of our drug industry, we have demonstrated our ability to successfully control disease and nutritional problems which were historically accepted as destroyers of populations. The rest of the world has seen our success and wants to share it. This is a good thing, and is our responsibility and our opportunity to make not only a medical, but a political contribution to the world in which we live.

Research

We in this industry are proud of our research contributions and of the way in which they have assisted the physician in his efforts to treat or prevent disease. We like to think that we both have contributed toward a longer and healthier life span for the world's people. Perhaps we have helped the public to achieve a confidence that most major diseases can be adequately controlled with existing knowledge and medicines. Together we have probably maneuvered ourselves into the position which was recently expressed by a prominent clinician discussing medical advances. He said that we have made so many advances in the prevention or cure of previously epidemic infections that we are in the anomalous position of saving people from so many of the diseases which decimated populations in the past, that they are now candidates for diseases which were previously of small statistical importance and which were largely ignored in previous medical care programs. We quite literally prevent their illness or death from some infections so they may become victims of other and as yet unconquered ones. There are many more mountains on our medical horizon and there is little probability that our research efforts can or should be curtailed in the future. We still have a big job to do in medical research.

We also have one in a seemingly unrelated but equally vital field—public relations. While our ability to do a medical job of prevention and cure has given us the stature of a giant, our image, in the mind of the public, has changed. Too many of them are being told that our private medical system is an avaricious and selfish one; in short, that it's about time to cut it down to size and control it by regimentation and bureaucratic supervision. The public gratefully, even if sometimes indifferently, accepts the vastly improved service we offer but they read that it costs too much.

How has this changing image developed, and why? A generation or less ago the relation between a physician and his patient was a highly personal one in which little or no outside influence would, or indeed was permitted to intrude. There was little reason for the physician to explain his medical or economic procedures to the patient. I know that you will agree that the attitude of the public toward their medical advisors has changed. It is now one to which some physicians find it difficult to adjust and one which is resented by others and indeed baffling to some.

The physician these days is not treating just the affected patient on a personal basis, but is guiding whole family units—mates, parents and siblings—to mold environments where stressful stimuli as causative or contributory agents are effectively reduced.

In this changing image, the trend is toward a greater institutional character in medicine. It is a worldwide trend. In all countries, regardless of differing economic or political systems, medicine is changing from a private relationship between two individuals into a medico-social institution or, more precisely, into part of a great network of social welfare institutions which is making it possible to shift the emphasis from periodic cures to continuous health maintenance.

Also, the 1959 physician is dealing with a much more "hep," sophisticated and demanding clientele—the group brought up in the past decade on popular magazines accepted by them as authoritative "medical journals."

After reading some of the current comments in lay journals, it is rather disheartening to reflect that we,

who were so recently eulogized as the source of life-saving miracle drugs, are now pilloried as profiteers. And it's plain by the news from Capitol Hill that such criticism is not limited to magazines and newspapers, but is relished as a grassroots political issue.

It is said that there are almost two million persons who owe their lives to new drug discoveries of the past fifteen years. The fact that some of these same persons are now criticizing the industry and the profession that saved their lives is not base ingratitude, but rather simply ignorance of the facts. Again, an example of the need for a sound public relations program.

All of us, physicians, pharmacists and manufacturers, are partners sharing a common interest in serving the health needs of the patient. The image they form of us should be of mutual concern. We should all work together to demonstrate our rightful position, because, in this changing image of medical care, health is indeed everybody's business.

We must recognize that it is our job to educate the public to some phases of medical care which have previously been highly privileged and therefore undiscussed and unpublicized. We must lead the public to understand that medicine is an art and a science which is not, and never will be, a completely exact, formalized, or mechanical procedure. We must teach them to understand that experimentation and risk is always involved. We must do these things, and, yet, at the same time, impress them with the high quality of private medical care and the desirability of its administration by private practitioners. We must welcome accurate and factual reporting and we must justify our procedures, and the price we charge for them.

I would like to take a moment to discuss this element of medical care—its cost—a subject which has received an enormous amount of publicity, much of it critical and detrimental. It is alleged in the public press that medical care is too expensive and, in support of this accusation, we see articles which state that the physician makes too much money, that hospitals grossly over-charge their patients, and that drug products are over-priced to the excessive profit of the producer. It is not my intention to launch into a long explanation or defense of the economics of drug product pricing, or of medical care itself, other than to say that here, indeed, is one area where we have failed to give the public our side of the story. The alleged facts that have been aired by the public press are sometimes warped, exaggerated or illogical conclusions by writers who are antagonistic or who are simply appealing to an apparent appetite for sensationalism. Most newspaper and magazine writers, on the other hand, are sympathetic with the public relations problems of medicine, and many of them have done us signal service in presenting the true facts to the public. For example, in our industry, we have found that, if you give the press the complete facts, both technical and economic, their reports are accurate, well-written and sympathetic. The good scientific writer resents his undisciplined colleague just as much as we do a maverick in our own ranks.

We have not done a very good job of explaining the cost of modern medical care in the light of what the average person gets for their medical care dollar. Certainly, modern medical care, and its auxiliary services of hospitalization and drugs, cost more per unit than they did in previous generations. But what do they get for their money? In my opinion, today's medical care, is the biggest service and commodity bargain that any person will ever buy in his entire lifetime. But we have not convinced the public of this fact.

If we are to avoid further federal legislation, spurred by public misunderstanding, the health team must explore all avenues and join together to support a mutually beneficial program of public information and communication based on nothing but facts—in short, a good sound public relations program. It is important if we are to keep medicine in the hands of the medical practitioner and not hand it, by default, to some government agency or bureau.

A recent survey of medical and pharmaceutical associations throughout the country would indicate that there is much confusion and uncertainty as to just what they should do on the subject of public relations. In fact, the survey revealed that there is almost an even split between those who feel it desirable to deal directly with qualified science writers of the press and those who feel that it is not in the public's interest to report on medical activities. Most of the associations have public relations committees but in many instances their relations with the lay press rather resemble two strange bulldogs glaring and snarling at each other. It is obvious that there is little agreement on a basic policy in dealing with the press, and it is apparent that the physician and the pharmaceutical manufacturer both need and are looking forward to the day when a clearer understanding of public relations responsibilities will lead to more productive public relations efforts. The results—a better informed and more accurately informed public.

As time goes on, the long-term interests of the

medical profession, the ethical pharmaceutical industry, and the general public are going to become increasingly identified. Moreover, with the passage of time, the welfare of each group, the fate of each group, is going to rest increasingly in the others' hands. It is of paramount importance, therefore, that each of the three groups learn to understand and appreciate the problems and viewpoint of the other two. Only through mutual knowledge and understanding can each group be led to sacrifice its own short-term interests for the long-term common good, so necessary now that health is becoming everybody's business.

Let's face it. We are going to have public attention, public relations, whether we like it or not. Let's make sure it is good relations and favorable attention.

We don't need to impress people that we are skilled, that we are capable, that we are "ten feet tall." We need, rather, to demonstrate that we are wide in our understanding, sincere in our desire that everyone, regardless of their economic level, benefit from our joint efforts, that the mystery of the medicine man is no longer part of our image, but that its removal reveals a bigger and more cosmopolitan profession, and one which needs, and deserves, unreserved public approval and support.

Our external communications are a problem, but I believe we have an internal one as well. As I see it, today's physician finds, because of the tremendous increase in medical knowledge, that his period of training has no end, either in time or cost. The pressures on him to specialize have increased to the point where, even if he decides to go into general practice, he feels the need to pass his boards to become a "general specialist." The personal pressures on him, especially the demands on his personal time, have increased to the point where he cannot possibly accomplish all of the things he feels he should do: see one to two hundred patients per week; read ten to fifteen general and special medical journals per month; see ten to fifteen detail men a week; read several hundred pieces of direct mail each week; attend hospital staff and county medical society meetings; attend special seminars; attend state and national medical conventions, *et cetera.* All this besides sparing a little time for the demands on him as a human being, for a wife, children, and a little civic and social life. So it is not surprising that he may neglect the intangibles of his public socio-economic image.

Can the drug manufacturers help with this problem? The answer is "yes." We have already taken an active role in the job of creating a good public image for medicine. My own company, for example, has carried on, for nearly thirty years, an extensive advertising campaign, not on our products, but on the behalf of the medical profession. We have urged the public to "See Your Doctor;" we have discussed "The Cost Of Medical Care," and we are now telling them of the rich heritage of the medical profession. We would like to believe that this campaign has helped convince the public that our private medical care system is worth keeping as the biggest bargain of their lives. The many comments we have received, both from the medical profession and from the public, convince us that it has helped.

It is still, however, a job for both of us, you as physicians, and we as manufacturers, to justify this concept to a public already conditioned to a paternal political concern with health matters and to convince them that a private enterprise medical system is not only effective, but, in the long run, less expensive.

Perhaps in our urge to grow medically tall we have distorted and attenuated our old public image. We need social and economic width if we are to avoid "welfare state" control.

Millions now living and millions yet unborn will have healthier and happier lives because of the medical job we can do. Let's make sure their concept, our image, is an equally healthy one.

Penicillin Substitute

A drug meant to fight typhoid fever is playing an important role in the treatment of venereal disease, according to scientists at The University of Michigan Medical Center. "Synnematin B," the antibiotic can be used safely by patients who are allergic to penicillin. A report on its effectiveness was given by Albert H. Wheeler (Ph.D.) of the U-M Medical School, at the 11th annual U. S. Public Health Service Symposium on Advances in the Study of Venereal Diseases.

"Penicillin is at present the only reliable agent for the cure of syphilis," said Dr. Wheeler. "So when penicillin-sensitive patients contract the disease, the problem of treatment becomes very serious."

Synnematin B is just as effective as penicillin in checking syphilis in its early stages. Original tests with animals proved its safety and effectiveness. The drug has since been used on two patients, and did not cause even a mild allergic reaction.

Synnematin B was originally isolated by scientists at the Michigan Department of Health Laboratories about 10 years ago, and showed great promise in the treatment of typhoid fever and related diseases.

Clinicopathological Conference

Wayne State University College of Medicine

The patient, a fifty-seven-year-old Negro man, was first transferred to Detroit Receiving Hospital because of confusion. Transfer diagnoses included emphysema and cor pulmonale. Alcoholism was mentioned and pertinent data revealed blood pressure 170/115, pulse 100 and cardiomegaly. He was discharged improved to the Medical Clinic on vitamins, digitalis, and low salt diet.

Final admission occurred three months later, with symptoms of weakness, anorexia, fifty-pound weight loss and vague chest discomfort. The blood pressure was 110/90, extraocular movements were normal, pupils reactive, discs pale, and there was no evidence of A-V nicking or retinopathy. There was increased A-P diameter of the chest and the lungs were clear. The cardiac PMI was in the sixth interspace at the anterior axillary line, with distant heart tones, regular rhythm, A_2 lounder than P_2, and a grade 2 apical systolic murmur. The liver edge was 4 cm. below the right costal margin and no peripheral edema was evident. There was muscle wasting, but no fasciculations. The cranial nerves were intact, but there was loss of proprioception and vibratory sense below the knees. The deep tendon reflexes were hypoactive although left patellar and bilateral Achilles were not elicited.

Pertinent laboratory data included hemoglobin 12 gm., white blood count 4100, and negative urine. Bilirubin was 2.4 mg. per cent, alkaline phosphatase 7.6 Bodansky units, and thymol turbidity 4 units. The BUN was 54 mg. per cent and BSP 28 per cent. The blood sugar, serum sodium, potassium, chloride were normal, but CO_2 was 19.7 mEq./L. Prothrombin time was 19.8 seconds, with control of 12.0 seconds. Albumin was 3.0 and globulin 2.9 gm. per cent. The Kline test was positive. Liver biopsy revealed normal liver tissue and chest x-ray revealed cardiomegaly. Barium enema was negative and G I series revealed duodenal deformity. ECG revealed left ventricular hypertrophy.

The patient was redigitalized and given massive vitamins. Weakness, and cachexia marked his course, which was relentlessly downhill, and he expired 3 weeks after admission.

Dr. G. O. Clifford.—Since neurologic problems were prominent at least early in the course, would you comment, Dr. Bauer?

Dr. R. B. Bauer.—The diagnoses brought to mind are Korsakow's psychosis and Wernicke's encephalopathy, with or without beri-beri heart disease, and CNS lues. Nystagmus is not present to support the diagnosis of Wernicke's. This man had marked weight loss, etiology unknown, and general muscular wasting. One must, therefore, rule out motor neuron disease (progressive muscular atrophy, amyotrophic lateral sclerosis, or progressive bulbar palsy). If either of these had progressed to the point of causing death, fasciculations would have been observed. Does the patient have polyneuritis, as suggested by reflex and sensory changes? Alcoholic polyneuritis is usually characterized by painful, tender, sensitive feet with peripheral hypalgesia, not described here. Because of the posterior column disease (lack of position and vibratory sense), one thinks of pernicious anemia; however, he had no anemia, glossitis, gastric achylia is not mentioned, and there are no pyramidal tract signs. What about diabetes? Loss of vibration and position sense is frequently the early manifestation of peripheral neuritis associated with diabetes, but there was no evidence for diabetes. With marked weight loss and rapid deterioration, one must think of carcinoma. Carcinomatous neuropathy, especially in pulmonary and ovarian carcinoma, can present as a peripheral neuritis with muscle disease and frequently with cerebellar signs. There is degeneration of the dentate nucleus and it progresses to degeneration of the olive and involves the pyramidal tract. No mention is made of cerebellar involvement, and his neuropathy is not symmetrical. CNS lues has not been ruled out. It is mentioned that the optic disks were pale. The presence of posterior column involvement, absence of pain, sparing of the upper extremities, positive serology, and the loss of reflexes in the lower extremities is compatible with tabes dorsalis; however, I do not think

that neurological disease was the primary cause of death, but is rather an incidental finding.

Dr. Clifford.—You think, then, that alcoholism and polyneuritis are unlikely possibilities?

Dr. Bauer.—In a patient who is a chronic alcoholic, it is very likely that many of the symptoms were due to a peripheral neuritis associated with nutritional deficiency, but this is not the typical picture here and this is more compatible with "burned-out" tabes dorsalis.

Dr. Clifford.—Dr. Regan, this patient had extreme cardiomegaly, but the murmurs were not specific. What is your interpretation?

Dr. T. J. Regan.—The patient was first admitted here in a confused state and was found to have hypertension, which subsided. Physical examination revealed quiet heart sounds, a narrow pulse pressure, and the electrocardiogram indicated left ventricular hypertrophy. What are causes of left ventricular enlargement? Some obscure causes, such as collagen disease, sarcoid, amyloid, hemochromatosis, metastasizing or primary tumor, and parasitic infection, may be eliminated with absence of systemic changes. Severe chronic reduction of cardiac output may itself lead to marked weight loss. With questionable nutrition, the spector of beri-beri is raised. High output failure is unlikely with the narrow pulse pressure and absence of peripheral edema and plethora. Does the patient have pericardial effusion? He does have distant heart sounds and narrow pulse pressure, but there was no paradoxical pulse. Moreover, he had left ventricular hypertrophy and no pulmonary or right-sided congestion. The major cause of left ventricular hypertrophy is essential hypertension, but the blood pressure and fundi were normal. Aortic insufficiency is excluded for lack of characteristic murmur or pulse pressure. The narrow pulse pressure suggests aortic stenosis, but the absence of a characteristic murmur makes it doubtful. Occasionally with aortic stenosis one finds little or no murmur in the aortic area, but finds it limited to the mitral area, relatively high-pitched with mid-systolic accentuation. Does the patient suffer from cardiovascular lues because of its high correlation with central nervous system lues? Most cases of luetic aortitis are associated with some regurgitation of the aortic valve. Gumma of the myocardium does not produce left ventricular hypertrophy. A diffuse inflammatory process of the myocardium, associated with syphilis, is usually secondary to coronoary vascular involvement. Several clues to a diagnosis of idiopathic diffuse myocardial inflammation do exist: the long standing narrow pulse pressure, left ventricular hypertrophy, and diminished heart sounds. Etiologic considerations should include viral, immune, and deficiency mechanisms. This patient terminated in a sudden manner, which may be secondary to mural thrombi from the ventricles.

Dr. R. J. Bing.—One cannot exclude the possibility that this man did have a nutritional deficiency with beri-beri heart disease. The combination of neuropathy and cardiomegaly certainly suggests this. Dr. Regan, what criteria would you require for a diagnosis of beri-beri heart disease?

Dr. Regan.—Classically, one expects generalized cardiomegaly, resting tachycardia, a bounding pulse, widened pulse pressure, and a shortened circulation time. If studied, the cardiac output is increased even though signs of heart failure are present and the peripheral resistance and A-V oxygen difference are reduced. Also helpful in the acute stage would be determination of blood lactate and pyruvate levels; these are characteristically elevated as a reflection of the thiamine deficiency basic to the disorder, and the resulting inability to decarboxylate pyruvic acid which accumulates in the blood.

Dr. Clifford.—This patient was diagnosed as having emphysema and cor pulmonale, and possessed an increased A-P diameter of the chest. The CO_2 was somewhat depressed. Dr. Lewis, do you think he had some form of pulmonocardiac disease?

Dr. B. M. Lewis.—That he had cardiac disease is difficult to dispute, but that he had pulmonary disease, I have serious doubts. All we know is that the anterior posterior diameter of the chest was increased. It has been proven that a great many people in the sixth and seventh decade have increased anteroposterior diameter of the chest, but their pulmonary function is normal for their age group.

Dr. Clifford.—It seems the consensus that this patient suffered from nutritional deficiency and alcoholism. He may well have had polyneuritis, or possibly CNS lues. He seems to have had an idiopathic myocardial hypertrophy or myocarditis, possibly due to beri-beri heart disease. At this point, we'll turn the discussion over to the pathologists.

Dr. J. A. Brough.—At necropsy, the major gross pathologic changes were limited to the thoracic cavity. The heart weighed 600 grams. The left and right ventricular weights were 237 and 93 grams, respectively, indicating both left and right ventricular hypertrophy. There was dilatation of both ventricular chambers and extensive diffuse sclerosis of the left ventricular endocardium. There were many mural thrombi in various stages of organization. One of these on the septal surface of the left ventricular chamber reduced the capacity by 50 per cent (Fig. 1). There were no gross abnormalities of the valves and the coronary arteries were normal. The left and right lung weighed 500 and 900 grams, respectively. Numerous branches of the pulmonary arteries were occluded by thromboemboli. Major portions of the parenchyma of all lobes were replaced by multiple areas of infarction. The liver weighed 1000 grams and the spleen weighed 27 grams. Microscopically, diffuse hypertrophy of myocardial fibers was present. There was no element of perivascular or interstitial fibrosis nor inflammatory infiltration of any type. The most striking change was noted in the endocardium and subjacent myocardium, where there was diffuse collagenous thickening of the connective tissue. There was uniform encirclement of the trabeculae carnae and papillary muscles by this process. No elastic tissue could be demonstrated and the subendocardial myocardium exhibited marked vacuolar change. Other sections demonstrated mural thrombi in varying stages of organization. Mild diffuse vesicular emphysema and the formation of an occasional bulla was noted in the lung sections. The liver exhibited only centro-lobular congestion associated with a minimal fatty change of the parenchymal cells. The pathological findings are compatible with chronic beri-beri heart disease, with endocardial sclerosis, multiple mural thromboses, and resultant pulmonary infarction. In addition, there was an idiopathic remote necrosis of posterolateral columns of the mid-cervical spinal cord, mild diffuse vesicular emphysema, and an incidental small gastric leiomyoma.

Dr. Bing.—Do you find pathologic changes in acute beri-beri heart disease?

Dr. Brough.—In acute beri-beri, the heart is globular and massively dilated. Endocardial sclerosis and mural thrombosis are not present. Microscopically there is non-specific interstitial change and intracellular edema.

Dr. M. B. Levin.—Why do you use the term "beri-beri" rather than idiopathic heart disease?

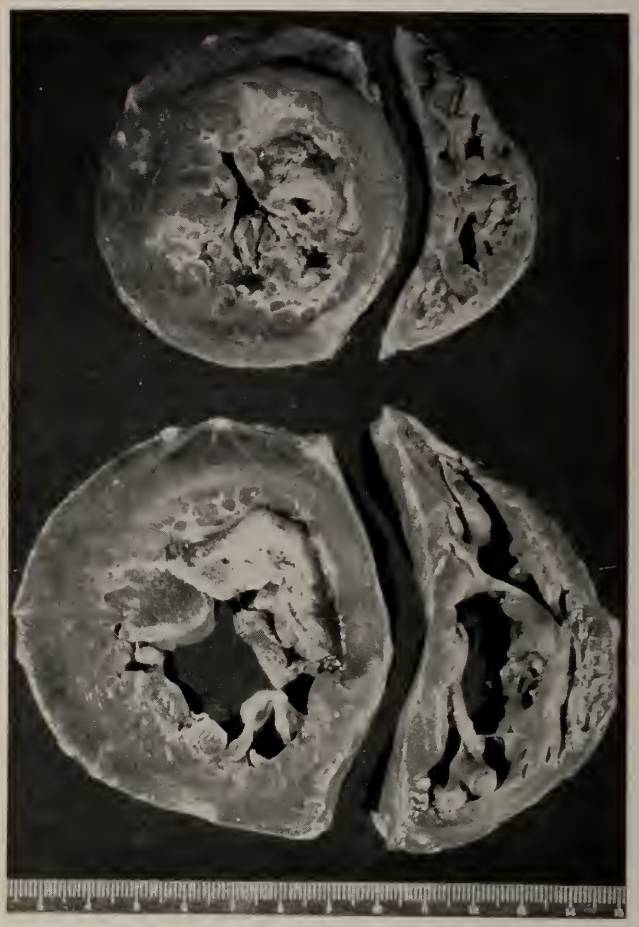


Fig. 1.

Dr. Brough.—Beri-beri is used here in its classic connotation. This form of heart disease does not represent a deficiency of thiamine alone, but of multiple dietary factors. In some obscure cardiopathies termed beri-beri, patients did not respond to thiamine alone, but to a general well-balanced diet. In others, patients initially responded to thiamine, but later became refractory and presented this pathologic picture at necropsy. Still other cases were refractory to all forms of therapy.

Federal Legislation

The Keogh Bill (H.R. 10) allowing self-employed, professional men and others to make deductions in their income before taxes, in order to set up a retirement program, may be enacted this session of Congress. It has passed the House and is in the Senate. There is much pressure on the Senators to pass it and a few letters to our Michigan Senators will help. The Bill should be passed this year. An encouraging sign is that the Treasury Department has lessened its opposition to the measure if certain modifications are incorporated.

H.R. 10 is a step toward placing the self-employed and the professional and business groups on a very low step of the platform of benefits available to manufacturing and industry. We have been writing about this editorially for about twelve years, and are happy to see the progress now being made.

When and if this Bill passes, it will propose some new problems, how to activate it, what to do and how. We will be approached by various schemes and schemers with plans. The Florida State Medical Society has already set up a retirement program which many of its members are following—even without the benefit of tax free contributions.

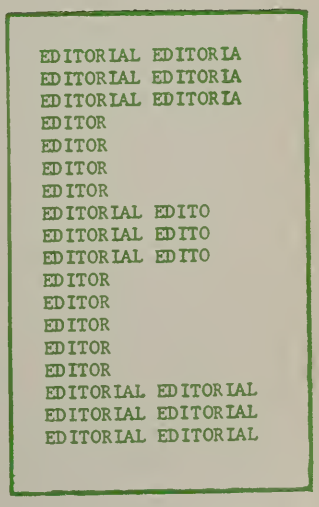
At its meeting April 13, The Council of the Michigan State Medical Society considered this measure and instructed our Legal Counsel to provide information and suggestions. When this Bill passes, our membership will wish to take advantage of the best possible program for setting up a retirement fund. This action of The Council is a very forward step in that direction and we suggest that our members keep this in mind when the time comes.

Health Insurance for Retirees

About all we have seen for the last several months have been items in the magazines and newspapers, in medical journals and bulletins, regarding health insurance for the senior citizen.

This agitation comes from several sources. It has been claimed that the 16 million people over sixty-five are in depleted financial straits and need help in their medical care. During their advanced years it is perfectly natural they will need more medical care.

This picture is definitely deceptive. Around twenty years ago when Blue Cross-Blue Shield started, provision was made for these older people. They were taken into pre-payment plans in groups without regard to age—just so they were an active member of that group. They were never cancelled out of the program because of age. That is almost a completely universal statement for all medically sponsored pre-payment programs. When a man left his employment through which he entered the pre-payment program, he was allowed



to continue at a slightly increased rate on direct payment. That was evidence not only of concern for the elderly citizens but of doing something for them.

Labor organizations and certain politicians and bureaucrats have for some years back been demanding more complete medical care under insurance at less cost, including complete care for the aged. This pressure and agitation have increased until it is now a wail of *"do something for the over 65's."*

We are now seeing and hearing more conferences on aging. Two were held in Lansing in April, one is scheduled for July in Ann Arbor and the President will hold one in Washington, D. C., next January. There are research programs going on at the University of Michigan, one in particular, stimulated by the Governor's Commission to Study Blue Cross, which has been under way for about three years and is about ready to make a report.

Pressure groups, labor groups and politicians are all demanding a solution. The medical profession has been studying this for years trying to find the best solution. Our volunteer programs have established special insurance programs for the retirees of meager income as well as those who can afford to carry regular insurance. The Forand type legislation is still very much in evidence. That bill itself probably will not pass, but could be sent through as a rider on other necessary legislation. The old Wagner-Murray-Dingell bills of thirty years ago were protested and condemned as socialized medicine. Most of their provisions have already been enacted in other measures. If a few more groups and services should be made a part of the government service, the only possible outcome would be through government operation and salaried doctors.

The medical profession must hold fast to what is left of private practice or be absorbed into the whole social security system. This is not the fight of a few doctors with vision, and with knowledge of what has gone in the past and with fear for the future.

This is everybody's fight.

This is *your* fight!!

Old Age Survivors and Dependent's Insurance

That is the official title of the Social Security Act. Another amendment has just been proposed to include the medical profession in social security coverage. Officially and persistently for many years, the American Medical Association has opposed having the medical profession included in this group, successfully so far.

We know there are many groups and many doctors who would welcome being included because of the retirement benefits and the fact that under present income laws it is difficult for self-employed persons to set up an adequate retirement program. Under social security, one is eligible to retire at sixty-five and is expected to do so. At that time, when he goes on retirement, depending on how long he has been covered, he can draw up to around $115 maximum and his wife half as much more, providing he does not earn more than $1,200 a year. At age seventy-two this restriction on earning is removed.

The medical profession, in general, does not retire at sixty-five but at seventy-four, on the average. Inclusion in the social security program would require that the M.D.'s pay into the program seven years of involuntary contributions before he is eligible to benefit from it. That fact is one of the reasons for non-participation of the medical profession, which as of now, is the only group not covered.

For approximately ten years, THE JOURNAL of the Michigan State Medical Society has advocated editorially that this restriction on social security benefits be removed. If that program is insurance, and its very name so proclaims it, why should any benefit which has been provided under the law, and which has been earned by contributions up to age sixty-five, be suspended or changed because a person earns more than $1,200 in a year or more than a stipulated amount within any one month.

We believe promised benefits should be available without restriction to whoever has qualified for them. We have suggested in the past, and we do so now, that an amendment be proposed to this social security act eliminating that restriction. We do not believe the government would lose money by carrying out the implied program of benefits. Most doctors would continue working and paying. The seven years of non-benefits have kept many of them out of the program so far. Other persons after age sixty-five would continue in the production economy.

We again propose this amendment to the social security act. Abolish the penalty for working. Pay honestly earned benefits.

Health Services

Michigan Medical Service has completed twenty years of operation, and one trend stands out. The number of services rendered per thousand subscribers

is constantly rising and has been from the very start. The amount paid for those services is also increasing.

About ten years ago Blue Cross and Blue Shield were concerned over these facts. They were considering whether this increase could be due to over-utilization. Harry F. Becker, M.D., of Battle Creek, was employed and spent several years visiting hospitals, studying records, trying to determine if there was over-utilization or justifiable increases. The number of entries into the hospitals and the number of services rendered by the doctors has constantly increased in proportion, as has the amount being paid. The hospital admissions from 1948 to 1957 show an average cost.

1948	$ 96.25
1949	110.84
1950	121.15
1951	137.30
1952	147.43
1953	155.93
1954	169.35
1955	179.29
1956	193.00
1957	213.92

This progress shows a trend. The same figures can be developed for Michigan Medical Service. The number of admissions during part of this period, determined as number of hospital days per thousand subscribers was:

1954	1005
1959	1237

In five years, there was an increase of 23 per cent in the more expensive hospital days per thousand subscribers. We have demonstrated a trend. We believe now that the medical profession and the hospital group organization—those rendering health services—should take a hint from labor who pointed the way several years ago. Mr. Reuther and his negotiators tied into their labor contracts a clause providing a certain definite higher wage for each specific increase in the cost of living as reported by the federal department effective every three months.

We suggest that Michigan Hospital Service and Michigan Medical Service establish an understanding with the state insurance commissioner to recognize the cost of living increase as automatically carrying with it a cost and increase of insurance premiums. Our auditors and economic advisors tell us that such an arrangement for the past several years in Michigan would have carried our two organizations through those years without the necessity of appealing to the commissioner frequently for increases, but doing it automatically.

Industry makes this change in wages each time the cost of living changes. They could do the same thing on withholding the premiums for Blue Cross and Blue Shield.

When Blue Cross and Blue Shield have gone to the State Insurance Commissioner requesting a rate increase, they have met delay running over months and the final allowance several percentages short of what was required.

The most prominent was late in 1956 when the Governor appointed a Commission to investigate the operation and procedures and to determine how more protection could be given for less money. Almost the entire year of 1957 was devoted to these inquiries with a tremendous amount of newspaper publicity. The final outcome was to authorize a study being conducted at the University of Michigan using about $328,000 donated by the W. K. Kellogg Foundation of Battle Creek. That study is still in process. Reports have been promised in the immediate future which should be a guide in future programs. The imminence of the report has not changed the increasing demand for more complete coverage and for protection of older citizens in spite of the very satisfactory programs built along the senior citizen line.

Some of the Michigan Medical Service Board, more than ten years ago, considered that special riders should be developed which when taken together would accomplish a complete medical coverage. Such an outline was studied and developed in planning, by which the demands of those wishing full coverage could have been met—thus negating their complaint so often heard that the only way full coverage could be obtained would be through compulsory health insurance by the government.

J. R. Seale, who studied medical care in both England and the United States, has made these conclusions:

1. The proportion of the gross national wealth of a nation devoted to medical care tends to remain constant.

2. It rises during national economic depressions and it falls during wars, because the proportion spent on medical care is constant, and in depressions the national income falls, while during wars it becomes artificially inflated.

3. A persistent rise in real per capita gross national income will tend to result in a gradual increase in the proportion spent on health.

(Digested from *JAMA*, December 12, 1959)

Michigan State Medical Society

The Ninety-Fifth Annual Session

H. J. Meier, M.D.
Coldwater
Council Chairman

Milton A. Darling, M.D.
Detroit
President

J. J. Lightbody, M.D.
Detroit
Speaker

D. Bruce Wiley, M.D.
Utica
Secretary

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Detroit, Michigan, September 25-26-27-28-29-30, 1960. The provisions of the Constitution and By-laws and the Official Program will govern the deliberations.

Milton A. Darling, M.D.
President

H. J. Meier, M.D.
Council Chairman

J. J. Lightbody, M.D.
Speaker

H. F. Falls, M.D.
Vice Speaker

Attest:
D. Bruce Wiley, M.D., *Secretary*

H. F. Falls, M.D.
Ann Arbor
Vice Speaker

THREE-DAY SESSION OF HOUSE OF DELEGATES

September 25-26-27, 1960

First Meeting—Sunday, 8:00 p.m.

The 1960 House of Delegates of the Michigan State Medical Society will hold a three-day session beginning Sunday, September 25, at 8:00 p.m. The business of the House of Delegates will be transacted in the Grand Ballroom of the Sheraton-Cadillac Hotel, Detroit.

The House will meet also on Monday, September 26 at 9:00 a.m. and 8:00 p.m., and on Tuesday, September 27, at 9:00 a.m. and at 8:00 p.m.

The intervals between meetings of the House of Delegates have been spaced to permit the Reference Committees ample time to transact all business referred to them.

SEATING OF DELEGATES

"Any Delegate-Elect not present to be seated at the hour of call of the first meeting may be replaced by the accredited Alternate next on the list as certified by the Secretary of the Component County Society involved."—MSMS Bylaws, Chapter 9, Section 6.

Michigan State Medical Society

The Ninety-Fifth Annual Session

SHERATON-CADILLAC HOTEL, DETROIT

SEPTEMBER 25-26-27-28-29-30

INFORMATION

- **DETROIT WILL BE HOST TO MSMS IN SEPTEMBER, 1960.**

- **MSMS HOUSE OF DELEGATES** convenes Sunday, September 25, at 8:00 p.m., Grand Ballroom, Detroit. It will also hold two meetings on Monday, September 26 and two on Tuesday, September 27.

- **THE PROGRAM OF THE ASSEMBLY** for the 95th Annual Session of the Michigan State Medical Society lists guest speakers from all parts of the United States. They are the usual stars in the medical world who always grace the podium at annual conventions of the Michigan State Medical Society; they insure a valuable concentrated refresher course in all phases of medicine and surgery for the busy practitioners of Michigan, neighboring states, and the Province of Ontario.

- **DATES OF SCIENTIFIC ASSEMBLY:** Tuesday noon through Friday noon, September 27-30, 1960.

- **REGISTRATION,** Tuesday, 10:00 a.m. (September 27) through Friday noon (September 30), Fourth Floor, Sheraton-Cadillac Hotel. Present your State Medical Society, American Medical, or Canadian Medical Association membership card to expedite registration.

- **NO REGISTRATION FEE FOR STATE MEDICAL SOCIETY AND CMA MEMBERS.** Doctors of Medicine, who are not members of their state medical society or the Canadian Medical Association, will be accorded the privileges of the MSMS Annual Session upon payment of a $25.00 registration fee.

- **REGISTER AS SOON AS YOU ARRIVE. ADMISSION BY BADGE ONLY.**

- **MEMBERS OF MICHIGAN MEDICAL SERVICE** will meet in annual session, Tuesday, September 27, at 2:00 p.m. This meeting will follow the annual MMS luncheon which will be held in the English Room of the Sheraton-Cadillac Hotel.

- **ALL SUBJECTS** at the MSMS Annual Session are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

- **POSTGRADUATE CREDITS** given to every MSMS member who attends MSMS Annual Session.

- **SIX ASSEMBLIES**—16 Section Meetings—all on September 27-28-29-30.

- **SECTION MEETINGS** will follow the daily Assemblies, Tuesday, Wednesday, Thursday, Friday.

- **PAPERS WILL BEGIN AND END ON TIME.** The MSMS scientific meeting always features by-the-clock promptness and regularity.

- **TECHNICAL EXHIBITS** will contain much of interest and value. Two daily intermissions to view the exhibits have been arranged.

- **MILTON R. WEED, M.D., DETROIT,** is Chairman of the Committee on Arrangements for the 1960 Annual Session.

- **CABARET-STYLE DANCE AND ENTERTAINMENT,** with the compliments of the Michigan State Medical Society, will be held in the Grand Ballroom of the Sheraton-Cadillac Hotel on Thursday evening, September 29. All who register and their ladies are cordially invited to attend.

SCIENTIFIC ASSEMBLY

Tuesday-Wednesday-Thursday-Friday

September 27-28-29-30, 1960

SAVE AN ORDER FOR THE EXHIBITORS AT THE
MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION

Michigan State Medical Society

Ninety-Fifth Annual Session

HOUSE OF DELEGATES

SHERATON-CADILLAC HOTEL, DETROIT, SEPTEMBER 25-26-27, 1960

ORDER OF BUSINESS*

SUNDAY, SEPTEMBER 25, 1960

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

6:00 p.m.—Registration

8:00 p.m.—First Meeting

1. Call to Order by Speaker
2. Report of Committee on Credentials
3. Roll Call
4. Appointment of Reference Committees
   - (a) On Officers' Reports
   - (b) On Reports of The Council
   - (c) On Reports of Standing Committees
   - (d) On Reports of Special Committees
   - (e) On Constitution and Bylaws
   - (f) On Resolutions
   - (g) On Special Memberships
   - (h) On Rules and Order of Business
   - (i) On Legislation and Public Relations
   - (j) On Hygiene and Public Health
   - (k) On Medical Service and Prepayment Insurance
   - (l) On Miscellaneous Business
   - (m) On Executive Session
   - (n) On National Defense and Disaster Planning
5. Speaker's Remarks—J. J. Lightbody, M.D., Detroit
6. President's Remarks—Milton A. Darling, M.D., Detroit
7. President-Elect's Remarks—K. H. Johnson, M.D., Lansing
8. Annual and Supplemental Reports of The Council —H. J. Meier, M.D., Coldwater, Chairman of The Council
9. Report of Delegates to American Medical Association—W. A. Hyland, M.D., Grand Rapids, Chairman
10. Brief of Annual Report of Woman's Auxiliary— Mrs. Harold H. Gay, Coleman
11. Brief of Annual Report of Michigan State Medical Assistants Society—Mrs. Reta V. Stahl, Albion
12. Report on Michigan Medical Service

MONDAY, SEPTEMBER 26, 1960

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

9:00 a.m.—Second meeting

13. Supplemental Report of Committee on Credentials
14. Roll Call
15. Awards:
    - (a) Selection of Michigan's Foremost Family Physician
    - (b) Fifty-year Awards
16. Resolutions†
17. Reports of Committees of the House of Delegates
    - (A) Permanent Advisory Committee on Fees
    - (B) Committee on Committees
    - (C) Committee to Work With National Blue Shield
    - (D) Special Committee to Review Constitution and Bylaws
    - (E) Committee to Study Problem of Malpractice
    - (F) Committee to Study Michigan State Medical Society Publications
    - (G) Special Committee to Study Election of Councilors on Geographic Basis and the Status of Councilors as Voting Members of the House of Delegates
    - (H) Committee to Review the Financial Structure of MSMS
18. Reports of
    1. MSMS Standing Committees
       - (A) Committee on Postgraduate Medical Education
       - (B) Preventive Medicine Committee
         - (1) Committee on Rheumatic Fever Control
         - (2) Maternal Health Committee (and Subcommittees)
         - (3) Venereal Disease Control Committee
         - (4) Tuberculosis Control Committee
         - (5) Occupational Medicine Committee
         - (6) Mental Health Committee
         - (7) Child Welfare Committee (and Subcommittees)
         - (8) Iodized Salt Committee
         - (9) Geriatrics Committee
         - (10) Committee on Diabetes
       - (C) Public Relations Committee (and Subcommittees)
       - (D) Ethics Committee
       - (E) Legal Affairs Committee
    2. MSMS Special Committees
       - (A) Scientific Radio Committee
       - (B) Advisory Committee to Woman's Auxiliary
       - (C) Advisory Committee to Michigan State Medical Assistants Society

*See the Constitution, Articles IV, VII and XII, and the Bylaws, Chapter 9 on "House of Delegates."

†All resolutions, special reports, and new business shall be presented in writing in triplicate (Bylaws, Chapter 9, Section 10-m).

(D) Study Committee on Prevention of Highway Accidents
(E) Mediation Committee
(F) Special Committee to Meet With Michigan Funeral Directors Association

MONDAY, SEPTEMBER 26, 1960
Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

8:00 p.m.—Third Meeting

19. **Supplemental Report of Committee on Credentials**
20. **Roll Call**
21. **Unfinished Business**
22. New Business
23. **Reports of Reference Committees**
    (a) On Officers' Reports
    (b) On Reports of The Council
    (c) On Reports of Standing Committees
    (d) On Reports of Special Committees
    (e) On Constitution and Bylaws
    (f) On Resolutions
    (g) On Special Memberships
    (h) On Rules and Order of Business
    (i) On Legislation and Public Relations
    (j) On Hygiene and Public Health
    (k) On Medical Service and Prepayment Insurance
    (l) On Miscellaneous Business
    (m) On Executive Session
    (n) On National Defense and Disaster Planning

TUESDAY, SEPTEMBER 27, 1960
Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

9:00 a.m.—Fourth meeting

24. **Supplemental Report of Committee on Credentials**
25. **Roll Call**
26. **Unfinished Business**
27. New Business
28. **Supplemental Reports of Reference Committees**

TUESDAY, SEPTEMBER 27, 1960
English Room, Sheraton-Cadillac Hotel, Detroit

8:00 p.m.—Fifth meeting

29. **Supplemental Report of Committee on Credentials**
30. **Roll Call**
31. **Unfinished Business**
32. **Supplemental Report of The Council**
33. **Supplemental Reports of Reference Committees**
34. **Elections**
    (a) Councilors:
        2nd District—O. B. McGillicuddy, M.D., Lansing—Incumbent
        3rd District—H. J. Meier, M.D., Coldwater—Incumbent
        15th District—R. J. Mason, M.D., Birmingham—Incumbent
        16th District—G. Thomas McKean, M.D., Detroit—Incumbent
    (b) Delegates to American Medical Association
        W. D. Barrett, M.D., Detroit—Incumbent
        R. L. Novy, M.D., Detroit—Incumbent
        G. W. Slagle, M.D., Battle Creek—Incumbent
    (c) Alternate Delegates to American Medical Association
        L. R. Leader, M.D., Detroit—Incumbent
        Wm. Bromme, M.D., Detroit—Incumbent
        J. R. Heidenreich, M.D., Daggett—Incumbent
    (d) President-Elect
    (e) Speaker of the House of Delegates
    (f) Vice Speaker of the House of Delegates
35. **Adjournment**

ANNUAL SESSION APPOINTMENTS

Chairman of Arrangements
Milton R. Weed, M.D., Detroit

House of Delegates Press Committee
J. J. Lightbody, M.D., Detroit, Chairman
Milton A. Darling, M.D., Detroit
H. F. Falls, M.D., Ann Arbor
C. Allen Payne, M.D., Grand Rapids
Milton R. Weed, M.D., Detroit
D. Bruce Wiley, M.D., Utica

Scientific Press Committee
H. F. Dibble, M.D., Detroit, Chairman
A. B. Gwinn, M.D., Hastings
J. J. Lightbody, M.D., Detroit
A. E. Schiller, M.D., Detroit
Milton R. Weed, M.D., Detroit
C. L. Weston, M.D., Owosso

HOTEL RESERVATIONS
MICHIGAN STATE MEDICAL SOCIETY
95th Annual Session
Detroit, September 27-28-29-30, 1960

The reservation blank below is for your convenience in making your hotel reservations in Detroit. Please send your application to the Committee on Hotels for MSMS Convention, Sheraton-Cadillac Hotel, Detroit, Michigan. Mailing your application now will be of material assistance in securing hotel accommodations.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

— — — — — — — — — — — — — — — —

Committee on Hotels,
Michigan State Medical Society
c/o Sheraton-Cadillac Hotel
Detroit, Michigan

Please make hotel reservation(s) as indicated below:

———— Single Room(s) ————persons

———— Double Room(s) for ————persons

————Twin-Bedded Room(s) for ————persons

Arriving September ———hour———A.M.———P.M.

Leaving ————————hour———A.M.———P.M.

Hotel of First Choice: ————————————

Second Choice: ————————————

Names and addresses of all applicants including persons making reservations:

Name	Address	City	State

Date ———— Signature ————————

Address ———————— City ————

MSMS HOUSE OF DELEGATES, 1960

Delegates and Alternates

(Names of Alternates appear in italics)

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H. F. Falls, M.D., 1313 E. Ann St., Ann Arbor
Vice Speaker
D. Bruce Wiley, M.D., 45310 Van Dyke, Utica
Secretary
G. B. Saltonstall, M.D., 112 Clinton St., Charlevoix
Immediate Past President
A. Verne Wenger, M.D., 132 Grand Ave., N.E., Grand Rapids
Honorary Member

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James I. Clark, M.D., Box B, Fennville

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Alexander B. Gwinn, M.D., 102 E. State St., Hastings
Everett L. Phelps, M.D., 118 E. Walnut, Hastings

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A. Zack Rogers, M.D., 20451 Mack Ave., Grosse Pte. Woods
Clarence L. Candler, M.D., 20040 Mack Ave., Detroit 36
Max L. Lichter, M.D., 2900 Oakwood Blvd., Melvindale
William L. Brosius, M.D., 16150 Sorrento, Detroit 35
Edwin F. Dittmer, M.D., 18412 Mack Ave., Grosse Pte. Farms
Robert K. Whiteley, M.D., 216 Lakeland Ave., Detroit 30
Arthur B. Levant, M.D., 15715 E. Warren, Detroit 24
Edward M. Vardon, M.D., 12897 Woodward Ave., Highland Park 3
James C. Danforth, Jr., M.D., 20175 Mack Ave., Grosse Pte. Park
Joseph R. Montante, M.D., 18715 Bretton Dr., Detroit 23
Brock E. Brush, M.D., 2799 W. Grand Blvd., Detroit 2
Edward H. Lauppe, M.D., 1551 Woodward Ave., Detroit 26
Howard C. Rees, M.D., 15700 Mack Ave., Detroit 24
Frank S. Perkin, M.D., 3011 W. Grand Blvd., Detroit 2
William L. Sherman, M.D., 10 Peterboro St., Detroit
Laurence F. Segar, M.D., 10 Witherell St., Detroit 26
John W. Derr, M.D., 702 Maccabees Bldg., Detroit 2
Harold B. Fenech, M.D., 324 Professional Bldg., Detroit 1
Melvin S. Dennis, M.D., 751 S. Military St., Dearborn
Raymond J. Kokowicz, M.D., 19440 Van Dyke, Detroit 34
Roger V. Walker, M.D., 1553 Woodward Ave., Detroit 26
Elmer B. Miller, M.D., 20 Oxford Rd., Pleasant Ridge
Rosser L. Mainwaring, M.D., 1910 Russell, Dearborn
Carl J. Sprunk, M.D., 2900 Oakwood Blvd., Melvindale
Hugh M. Fuller, M.D., 1257 David Whitney Bldg., Detroit
Louis E. Heideman, M.D., 20211 Greenfield Rd., Detroit 35
A. Jackson Day, M.D., 245 Cleverly Rd., Grosse Pointe Farms
Russell T. Costello, M.D., 3001 W. Grand Blvd., Detroit 2
Alexander Blain, III, M.D., 2201 E. Jefferson, Detroit 7
Lyle W. Korum, M.D., 18585 E. Warren St., Detroit 36
Frank P. Walsh, M.D., 654 Fisher Bldg., Detroit 2
Clarke M. McColl, M.D., 2799 W. Grand Blvd., Detroit 2
Sidney E. Chapin, M.D., 125 N. Military, Dearborn 7
E. Clarkson Long, M.D., 13995 Rutland Ave., Detroit 27
Eugene J. Steinberger, M.D., 6402 W. Fort St., Detroit 9
William B. McIntyre, M.D., 1145 David Whitney Bldg., Detroit 26
John G. Graham, Jr., M.D., 491 Lincoln Rd., Grosse Pointe 30
Herbert E. Pedersen, M.D., 381 Golfcrest Dr., Dearborn
Philip J. Huber, M.D., 1724 Bassett, Royal Oak
John W. Sigler, M.D., 1356 Greenlawn Blvd., Birmingham
Frederick B. Steiner, M.D., 7675 Ridge Rd., Plymouth
Walter L. Anderson, M.D., 1553 Woodward, Detroit 26
Francis L. Granger, M.D., 14160 Gratiot Ave., Detroit 5
Alexander B. Stearns, M.D., 1116 Maccabees Bldg., Detroit 2
Harry E. Bagley, M.D., 7541 Oakman Blvd., Dearborn
Dwight C. Ensign, M.D., Franklin
John P. Ottaway, M.D., 18226 Mack Ave., Grosse Pointe Farms
Lewis Green, M.D., 13000 Grand River, Detroit 27
Edgar G. Cochrane, M.D., 503 Medical Arts Bldg., Detroit 3
Everal M. Wakeman, M.D., 22276 Garrison Ave., Dearborn
Robert P. Lytle, M.D., 10 Peterboro St., Detroit
Lambertus E. Beeuwkes, M.D., 13014 Mackenzie Ave., Detroit 28
Maurice M. Silverman, M.D., 17301 W. Eight Mile Rd., Detroit 35
Thomas M. Batchelor, M.D., 18060 Conant, Detroit 34

WEXFORD-MISSAUKEE
Gregory P. Moore, M.D., 734 East Division St., Cadillac

Annual Coller-Pemberthy Medical Conference

Traverse City, Michigan—Park Place Hotel

Thursday and Friday, July 28, 29, 1960

E. L. Thirlby, M.D., and Frederick A. Coller, M.D., *Honorary Chairmen;* Frank H. Power, M.D., *Presiding.*

THURSDAY, JULY 28, 1960

10:00 A.M., Park Place Hotel

Harry Towsley, M.D., Ann Arbor, Michigan—Laboratory Procedures in Office Practice
Marion S. DeWeese, M.D., Ann Arbor, Michigan—Lesions of Renal Arteries
George Morley, M.D., Ann Arbor, Michigan—Once a Cesarian, Always a Cesarian
Richard M. McKean, M.D., Detroit, Michigan—Thyroid Dysfunction
J. Dewey Bisgard, M.D., Omaha, Nebraska—Emergency Primary Gastric Resection for Acute Perforation
Arthur Curtis, M.D., Ann Arbor, Michigan—Common and Benign Lesions of the Skin.

Lunch—Park Place Hotel

2:00 P.M.

Richard Bing, M.D., Detroit, Michigan—Certain Aspects of Congestive Failure
Philip D. Wilson, M.D., New York, N. Y.—Osteoporosis, Modern Concept of Diagnosis and Management
Albert C. Furstenberg, M.D., Ann Arbor, Michigan—Deafness
Edwin Ellison, M.D., Milwaukee, Wisconsin—Current Thoughts on Pancreatitis
Carl E. Badgley, M.D., Ann Arbor, Michigan—Some Unusual Tendon Injuries
Robert M. Zollinger, M.D., Columbus, Ohio—Treatment of Duodenal Ulcer

6:30 P.M.—Cocktail Party—Park Place Hotel

7:00 P.M.—Dinner—Park Place Hotel

Frederick A. Coller, M.D., *Presiding*
Guests: Dr. Alexander Ruthven, Dr. Harlan Hatcher, Dr. Henry F. Vaughn, Dr. William Hubbard

FRIDAY, JULY 29, 1960

Clinic and Case Demonstrations, James Decker, Munson Hospital

9:30 A.M.—Short Symposium on Trauma

Merle M. Musselman, M.D., Omaha, Nebraska—A Critical Evaluation of Shock and Its Management
Clifford Benson, M.D., Detroit, Michigan—Abdominal Trauma in Infants
Reed Nesbit, M.D., Ann Arbor, Michigan—Traumatic Urinary Tract
Edgar Kahn, M.D., Ann Arbor, Michigan—Spinal Cord Injuries
Case Demonstrations by Staff of Munson Hospital
Discussion and Questions by Audience and Guests
1:00—Lunch—James Decker, Munson Hospital

The Eye Bank at Ann Arbor

John W. Smillie, M.D.
St. Joseph Mercy Hospital,
Ann Arbor, Michigan

Two years ago the first eye bank in the state of Michigan was established here at the University of Michigan Medical Center with the sponsorship of the Michigan Lions Club. The official name of the eye bank is the "Michigan Eye Collection Center."

Corneal grafting has been done here at the University Medical Center, the Ann Arbor Veterans Administration Hospital, and St. Joseph Mercy Hospital for about the last five years.

When the cornea becomes cloudy or irregular, the light rays are prevented from reaching the retina or are so distorted that a clear image is not formed.

For some period of time we can continue to give patients sight with corneal contact lenses after they can no longer be made to see with corrective glasses. When the contact lenses fail it is necessary to do a corneal graft or corneal transplant. An instrument, called a trephine, is used to remove the graft from a donor eye and then the diseased tissue from the recipient cornea is removed. The healthy tissue from the donor eye is then put in place and sutured into position.

This sounds like a relatively simple procedure, and yet for years was unsuccessful. Prior to 1900 the corneal grafting was unsuccessful because animal corneas were used for grafting and these did not work.

Since 1900 human material has been used, the antibiotics have arrived, the instruments and suture material have been improved, and we have the steroids to cut down inflammatory response. Thus, corneal grafting is now more successful. It is still a most hazardous procedure, successful results being obtained perhaps in half the cases. Nonetheless, when a patient has poor vision in each eye, and he knows that the vision may be cleared by operation, he will often say "Doc, what have I got to lose?"

Donor eyes must be removed within a two-hour period after death and should be used within a forty-eight hour period thereafter. We usually try to use the donor eye as soon as possible after the removal; not often after twenty-four hours. To date the most successful method of preservation is by refrigeration.

Prior to having the eye bank here we simply waited until donor eyes were received and then called the patient in. This is the method we still use of choice, but sometimes an eye will rupture and the procedure must be done at once. In this case an eye is flown in from one of the many other collection centers throughout the country.

The eyes that are willed to the Michigan Eye Collection Center are used for research purposes if they are not used for corneal surgery. At present we are accepting donations of eyes only within the immediate geographic area of Ann Arbor.

Almost anyone can donate his eyes, including patients who use glasses and patients who have had a cataract operation. As long as a cornea is clear it makes little difference what the age of the person is. Sex, color or creed makes no difference, for all religions have approved of the procedure. The enucleation of the eyes does not mar the appearance of the body.

The eyes cannot be designated for a specific person. They are used for the next patient on the eye surgeon's list. If the eyes are not used within forty-eight hours, they are trans-shipped to the National Eye Bank in New York by air to allow for redistribution.

If we cannot use the eyes for grafting they are carefully studied in research to help find causes and cures for blindness.

There is no charge for the eyes and the eye bank furnishes the eyes free to patients in hospitals needing them. They are never bought or sold.

If you wish to donate your eyes at death you may write the Michigan Eye Collection Center at the University Medical Center, Ann Arbor, or the office in St. Joseph Hospital and forms will be sent to you for your signature to indicate that you wish to have this done.

The Michigan state laws are such that you cannot actually will the eyes yourself. Permission to remove eyes must be given by the legal next of kin, say husband or wife. Nonetheless, if you have signed a form indicating that you wish to will yours eyes, the next of kin usually grants this permission.

Prepared at the request of the editors of the monthly news letter of Saint Andrew's Episcopal Church, Ann Arbor, and entitled by them "At Death . . . a Gift of Sight?"

Doctor Smillie is an active staff member, Saint Joseph Mercy Hospital, Chief of Eye Service, Ann Arbor Veterans Administration Hospital, and Assistant Professor of Ophthalmology, University of Michigan.

Population of Physicians Increased in Nation in '59

The physician population of the United States increased by 4,769 in 1959, a gain of 660 over the 1958 gain.

The 1959 increase results from the licensing of 8,269 new doctors of medicine, minus the deaths of approximately 3,500 doctors, according to the 1959 report of the American Medical Association Council on Medical Education. There was no marked decrease evident in any state, according to the Council.

The Council reports that of the 8,269 new physicians to be licensed, 1,626 were foreign-trained. The report also points out that the number of failures among applicants for licensure by written examination decreased from 15.8 per cent in 1958 to 12.9 per cent in 1959.

Project HOPE to Aid People of Asia

The People-to-People Health Foundation, a private, non-profit corporation, is in the midst of its newest project, "Health Opportunities for People Everywhere" which spells out H-O-P-E.

Project HOPE, undertaken by the Advertising Council as a public service campaign, seeks to raise funds for a "floating medical center." The center is a fully-equipped hospital ship made available by the U. S. Navy and renamed HOPE by the Foundation. The ship will visit Southeastern Asia where the hospital beds of the ship will be used primarily to provide an opportunity for medical teaching rather than in attempting to meet the overwhelming problem of caring for the vast mass of sick people in Asiatic lands.

It is estimated that a fund of $3,500,000 will be needed to operate the ship and its educational program for a year. The campaign headquarters is Box 9808, Washington 15, D. C.

Urges Patients Follow Drug Advice of Their Physicians

The nation's drug industry has warned patients taking prescription drugs to rely solely on the advice of their own physicians for the determination of proper drugs for their illnesses.

Austin Smith, M.D., president of the Pharmaceutical Manufacturers Association, said he is "alarmed by reports that patients are ignoring and questioning prescriptions of the one and only person qualified to advise them—their own doctor."

Dr. Smith declared, "In the past two decades the pharmaceutical industry has brought hundreds of new compounds from its laboratories to save lives and physicians have worked overtime to perfect their knowledge of these products—what they will and will not accomplish, and how they may help the unique condition of each individual patient. Much of this vital information comes properly to doctors

through their own technical channels of communication and as a result of studies and symposia conducted by learned specialists. For this there is no safe substitute."

Ease MD Shortage

The W. K. Kellogg Foundation, Battle Creek, has given a $1-million-dollar grant to the University of New Mexico to establish a school of basic medical sciences. The AMA will cooperate in the proposal. Students will attend the basic medical sciences school for two years and then transfer to traditional four-year medical schools for their junior and senior years.

Rural Health Meeting Hears Plea for Aged

A New York doctor told the 15th National Conference on Rural Health at Grand Rapids that society has been illogical and inconsistent in its attitude toward compulsory retirement and a more realistic approach is necessary.

Theodore G. Klumpp, M.D., a member of the American Medical Association's Committee on Aging, said, "The same care exercised in selecting a person for employment should be used in retiring that individual."

"Certainly a man isn't fit one day and unfit the next because one page on the calendar has turned."

Doctor Klumpp pointed out that an entirely new set of social, economic, and political needs are being created as by-products of the technological advances of medical science.

* * *

DOCTORS OF MEDICINE, dentists, youth leaders, farm group representatives, and others participated in the 15th National Conference on Rural Health at Grand Rapids.

Sponsored by the American Medical Association's Council on Rural Health, the three-day meeting explored the challenging health problems of rural America.

Fred A. Humphrey, M.D., Fort Collins, Colorado, rural health council chairman, explained that through the work of many groups, communities previously without physicians have obtained them, health insurance programs for rural groups have been set up, and the general health of rural communities has improved.

Sessions were devoted to "careers in the field of medicine," the needs of aging and such nutritional topics as foods, additives, and faddism.

* * *

THE CONFERENCE ALSO heard an address by Dena C. Cedarquist, head of the department of foods and nutrition, College of Home Economics, Michigan State University on the problems of determining the adequacy of Americans' diets.

She said figures on the tonnage consumption of certain foods were available and in isolated cases homemakers can provide records of what is eaten in their households. But actually, she said, we know little about the food intakes of individuals and should be skeptical of such statements as "one-half of the population is undernourished with respect to calcium intake."

Honor Doctor Carr

The first Earl I. Carr, M.D., Award was given at the AMA National Conference on Rural Health at Grand Rapids to the Roseville Health Council. The award will recognize the community health organization in Michigan for its outstanding health programs throughout the past year.

The award, established by the Michigan Health Council, honors Doctor Carr, who has been one of its most active members, founder and president of the Michigan Foundation for Medical and Health Education, recipient of many citations for distinguished service, and a medical practitioner for half a century. Doctor Carr has practiced surgery in Lansing for years.

Appeals to Students

The University of Chicago's School of Medicine recently conducted 200 high school students on a seven-hour tour of its facilities. At the conclusion of the tour Dean Lowell Coggeshall urged the students to study medicine "even if you are short of funds."

Dean Coggeshall declared, "Every place you go there is a demand for more doctors from the public, industry and homes for the aged."

"We can point now to doctor shortages in several areas of medicine—anesthesiology, pathology and radiology among them," added Dr. Ward Darley, executive director of the Association of American Medical Colleges.

Encourage Paramedical Careers

The Women's Auxiliary to the Medical Society of Milwaukee County is currently sponsoring Paramedical Careers Clubs for more than 250 students in local high schools.

The doctors' wives began this program seven years ago by encouraging interested teenagers to form Future Nurse Clubs. The "paramedical" title was adopt-

ed last year to attract students who did not want to enter nursing but showed interest in other careers in the health field.

Northwestern Alters Medical School Courses

A revolutionary new medical school curriculum that will cut the student's course of study from eight to six years has been announced by Northwestern University.

In addition to revising the curriculum and reducing the length of time required for a medical degree, Northwestern will admit especially talented students directly into the medical school from high school.

A pilot study of the program will begin in the fall of 1961 with 25 talented students, Dr. Richard H. Young, dean of the Medical school said.

Both Johns Hopkins and Stanford University medical schools have been developing similar programs, he adds.

BMA Aids MD Visitors

The Council of the British Medical Association has established an International Medical Advisory Bureau to provide a personal advisory service for medical practitioners visiting the United Kingdom. The Bureau is located at British Medical Association House, Tavistock Square, London, W.C.I.

Overseas medical visitors are cordially invited to visit the Bureau as soon as possible after arrival for information about postgraduate education facilities and visits to hospitals and clinics, or assistance about suitable accommodations, or general information on cars, sports, traveling, exhibitions, theatres, etc.

Associate Editor Appointed

The World Medical Association has appointed J. Gosset, M.D., editor of *Concours Medical* of Paris, to be associate editor of *World Medical Journal.* Stanley S. B. Gilder, M.D., formerly editor of the *Journal of the Canadian Medical Association,* is the executive editor of *World Medical Journal.*

Says Zeal Is Gone

Social workers have lost their passion for social justice, Robert H. MacRae, executive director of the Metropolitan Chicago Welfare Council, declared at the University of Michigan. Mr. MacRae delivered the Jane Addams Memorial Lecture to the recent eighth annual Social Work Progress Institute.

One of the costs of professionalizing social work, MacRae said, was the loss of the passion displayed by Miss Addams, American social worker who founded Chicago's Hull House. Today, it is not social workers, but economists and labor leaders, who stir the public conscience, he said.

Conversion Provisions Now Mandatory in N. Y.

The insurance industry, doctors and others have followed with interest the new New York legislation which will require convertibility provisions in health insurance.

New York will become the first state in the nation requiring that all group health insurance plans allow conversion to individual policies for any persons leaving a group.

Two bills making this conversion privilege mandatory were passed by the State legislature during the closing days of the session, upon strong urging of Gov. Nelson Rockefeller.

The measures provide that insurance companies and Blue Cross-Blue Shield must make available—and employers and unions must buy—the conversion privilege as part of any group contact. All persons covered by the group for three months are eligible for the option. There is no restriction as to age or pre-existing conditions not excluded under the group contract.

Surgical, and in-hospital medical and room-and-board expenses are to be insured. In the case of indemnity plans, three levels are offered at prevailing state-approved rates. Surgical schedules will run from $250 to $300.

For persons aged sixty and over who have been in a group for two years, the premium shall not exceed a ceiling approved by the State insurance department.

Chinese Materials

Pergamon Press, an international scientific publishing house with head offices in New York and London, now maintains bureaus in Paris, Frankfort, Milon, Los Angeles and Washington, D. C. Pergamon Press, which acts as publishers for many scientific societies and organizations throughout the world, has, at the National Library of Medicine, added recent acquisitions of Chinese language material which seem to fall into five general categories: photolithographs of ancient medical classics; herbals and collections of prescriptions and formulae for medicinal herb preparations still in common use; works, both ancient and modern, on acupuncture and moxibustion; popular handbooks and guides to basic health rules and practices in hygiene, and monographs on Western medical and pharmaceutical practice.

MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

Recommended Follow-up Procedure For Premarital Serologic Tests

The diagnosis of syphilis is not based solely upon the results of laboratory tests. It is a decision of the physician, based upon history, physical examination and the aid of laboratory tests. It is his decision to determine whether or not the patient has a biologic false positive or is actually infected with syphilis. Although the RPCF test is usually considered to be more specific than many of the standard reagin tests for syphilis (such as Kahn, Kline, Kolmer), nevertheless, it does not necessarily mean that all persons with a reactive Kahn and non-reactive RPCF are biologic false positives. (For example, in treated syphilis, the RPCF is quite likely to become non-reactive before the Kahn test.) However, if the RPCF is reactive, one can be quite certain in most instances that it is not a biologic false positive. In very early syphilis, the Kahn and other reagin tests will become reactive before the treponemal tests such as the RPCF or Treponema Pallidum Immobilization (TPI). If a person were in this early stage of the disease, it could well be possible to miss the infection if one depended entirely on the treponemal test.

Following is the recommended follow-up procedure:

1. If either the Kahn test or the Reiter Protein Complement Fixation (RPCF) test is reactive, the tests should be repeated after a reasonable interval of time—ten days to two weeks.

2. If the second tests are both non-reactive, no special dispensation for marriage is required; a regular medical certificate (Form V-90) can be issued. The RPCF test in this instance would be performed only upon special request by the physician, since it is routinely done on reactive Kahn tests only.

3. If the *Kahn test is reactive* and the RPCF test is non-reactive (after the serology has been repeated), a special dispensation may or may not be required, depending upon the decision of the physician. He may issue the regular medical certificate if he is convinced that the patient is not infected with syphilis nor has been previously treated for syphilis. His decision should be based upon (a) adequate history either for syphilis or treatment for same, or lack of such history; (b) physical examination; and (c) laboratory aids. If the patient has a history of syphilis or treatment for same, a special dispensation is required.

4. If the *Kahn test is reactive* and the *RPCF test is reactive*, a special medical dispensation for marriage license is required. It will be issued by the Michigan Department of Health under certain circumstances such as adequate treatment, diagnosis of congenital syphilis (proven), or demonstrated pregnancy, if patient is currently under therapy. Application blanks for special dispensation for marriage (Form V-94) are available on request from the Division of Tuberculosis and Adult Health, Michigan Department of Health, Lansing 4, Michigan.

5. If the *Kahn test is non-reactive* and the *RPCF test is reactive*, a special dispensation is required and may be issued under the condition listed in item 4.

Live Birth or Fetal Death

To die without having been born would seem to be a paradox. Yet, in Michigan each year, there are a number of death certificates filed for infants who lived a few minutes or hours but for whom no birth record was ever made. Thus, according to the record, they died although they were never born. This kind of thing can and does seriously disturb statisticians.

This is the census year. All birth and death certificates will be carefully matched. These vital statistics will be used in numerous ways by many people. It is our hope, therefore, that the records will be as accurate as it is humanly possible to make them.

Statistics on the state level can only be as accurate as those produced locally. Since the physician is responsible for completion of birth and death certificates, he is the source of all state vital statistics. And there is aparently still some confusion regarding these certificates as they apply to fetal and neonatal deaths.

A fetal death, or stillbirth, is death prior to the complete expulsion from its mother of a product of conception which has advanced through the 20th week of uterogestation. The death is evidenced by the fact that after expulsion the fetus does not breathe or show any sign of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Under these conditions, a stillbirth certificate must be filed.

If, however, the child shows any signs of life after expulsion, even though it be momentary, and regardless of the length of uterogestation, the birth shall be registered as a live birth and a death certificate shall also be filed. Birth is considered complete when the child is altogether outside the body of the mother, even if the cord is uncut and the placenta still attached.

Information on birth and death certificates is of great value in perinatal mortality studies. Physicians and record librarians of hospitals can do a great service if they will make sure that the proper type of certificate is filed for each fetal and neonatal death.

To Represent MHC On Aging Commission

Harry B. Zemmer, M.D., of Lapeer, president emeritus of the Michigan Health Council, was selected by the Council last month to membership on the new Michigan Commission on Aging.

Long active in scientific and administrative medical activities, Dr. Zemmer brings to the Commission an outstanding record of public service. He served for many years on the State's Mental Health Commission, both as member and Chairman. He also has held numerous county and state medical society offices, including an eight year term as MSMS Councilor from the 7th District.

H. B. Zemmer, M.D.

The Commission on Aging, to which Dr. Zemmer was named, was established by the Legislature in 1960 and begins operations July 1, 1960. It supplanted the Governor's appointive Commission on Aging and a Legislative Advisory Council on Problems of the Aging. As originally proposed, it was to be made up of five governmental ex-officio and six citizen members. At the request of the MSMS however, the measure was amended to add a "representative of the Michigan Health Council," making the membership twelve.

In an organizational meeting held in the Governor's office on May 27, the Commission elected James E. Brophy, Detroit, Chairman, John B. Martin, Grand Rapids, Vice-Chairman, and Charles Odel, Detroit, Secretary.

The Commission sponsored a series of regional meetings during the spring and will conduct the Michigan Conference on Aging in Lansing in September. Recommendations from the state-wide conference will go to the White House Conference on Aging in January at Washington, D. C.

Eleven 50-year Grads Honored by Wayne University

College of Medicine alumni of Wayne State University held their ninety-second reunion and clinic day May 4 at the Hotel Fort Shelby.

More than 250 graduates attended both the scientific sessions and dinner-dance, according to Chairman Rosser L. Mainwaring, M.D.

The science program began at 9:30 a.m. with presentations in surgery, medicine, obstetrics and gynecology, psychiatry and pediatrics.

At the banquet, nine fifty-year graduates of the College of Medicine were given Golden Anniversary Certificates by Irving W. Sander, M.D. They are: Harry J. Butler, M.D., Highland Park; Ulysses Durocher, M.D., Windsor; Henri L. Gratton, M.D., Detroit; William E. Miller, M.D., Detroit; Fred Organ, M.D., Detroit; Alvord R. Sanderson, M.D., Grosse Pointe; Elisha S. Sevensma, M.D., Grand Rapids; Rene J. St. Louis, M.D., Detroit; George H. Southwick, M.D., Grand Rapids. Unable to attend were Edward G. Dimond, M.D., Flint, and Louis J. Sebille, M.D., Pontiac.

Scientific papers were given by Drs. Herbert Robb, C. Gordon Campbill, Prescott Jordan, Lawrence Berman, Benjamin W. Drompp, Jacques S. Gottlieb, Gerald S. Wilson, Frederico A. Arcari, Charles S. Stevenson, M. S. Meyer, Charles Whitten, Osborne A. Brines, Charles G. Johnston, Benjamin Lewis, Kam Moghissi, James M. Pierce, Jr., and Alfred Large.

Clarence I. Owen, M.D., Detroit, is president of the alumni group.

Scholarship awards were made to Robert A. Abramovitz, '62, sophomore, for the highest attainments in the first two years, and to Ronald S. Seltzer, '60, for highest scholarship for the four years.

Honorary Membership in the Wayne State University Medical Alumni was given to Milton A. Darling, M.D., in appreciation of many achievements including service as president of the Michigan State Medical Society.

Muir Clapper, M.D., of Wayne faculty, was given a Distinguished Service Award for devotion to the teaching of the medical student.

Social Security Asks Prompt Medical Reports

The Social Security Administration at Lansing has made a plea that doctors act promptly when they have medical report forms to complete for social security disability benefits.

"When you get one of these forms, it is your patient who is seeking your assistance. This is not just another government form. This is a plea for help from your patient," the administration points out.

The appeal continues:

"A patient faced with a lengthy illness, loss of income, possibly with a family dependent on him, has a serious mental, as well as physical, burden. If he can establish that he is disabled for any substantial gainful work, there may be monthly cash benefits for him and his family. Frequently, even if no cash benefits are immediately payable, the amount of his future benefits can be protected.

"When one of your patients files an application for social security disability benefits, or applies to protect his future benefits rights, he is asked to furnish medical evidence showing the nature and extent of his disability. The responsibility for providing this rests with him, just as he must prove his age, for example. Since almost no patient can be his own physician, the disabled individual must ask his doctor to help him. With the help of members of the medical profession, the Social Security Administration has devised some forms on which this information can be conveniently supplied. The Social Security Administration furnishes these forms to its claimants, but the doctor may make his report in whatever form he sees fit, so long as it covers the essential facts—that is, the history of the disabling condition, as the doctor knows it, the symptomatology, clinical findings, and diagnosis.

"If the medical reports are slow in coming in, or incomplete, the patient's claim is delayed or even denied, since the law provides that he must have a disability which is 'medically determinable.' "

Detroit Surgical Society Reports New Officers

The Detroit Surgical Society held its annual election in April and reports the following officers: Paul J. Connolly, M.D., president; Donald N. Sweeny, Jr., M.D., president-elect; Edward M. Vardon, M.D., secretary; Henry J. Vandenberg, Jr., M.D., treasurer, and J. W. Deer, M.D., audit control officer. Members of the Council are John Reid Brown, M.D., Raphael Altman, M.D., Philip J. Huber, M.D., Joseph A. Witter, M.D., Homer Smathers, M.D., and James J. Horvath, M.D.

Detroit Surgeon to Head Michigan Academy

C. R. Lam, M.D.

Conrad R. Lam, M.D., Detroit, is the new president of the Michigan Academy of Science, Arts and Letters. Doctor Lam, chief thoracic surgeon at Henry Ford Hospital, was chosen at the annual meeting held March 26 at Ann Arbor. The 65th annual meeting of the Michigan Academy will be held next March at Wayne State University. Other officers include C. P. Loomis, East Lansing, vice-president; F. C. Bald, Ann Arbor, secretary; V. H. Jones, Ann Arbor, treasurer, and S. W. Baker, Jr., Ann Arbor, editor.

U-M Aging Conclave Soon

"Aging in the 'Sixties—Decade for Action" will be the theme of the University of Michigan's 13th annual Conference on Aging, June 27-29.

More than 300 are expected to attend the conference, designed to study ways of carrying out recommendations which will emerge from the 1961 White House Conference on Aging.

Participants will discuss channels of action and also how recommendations may be carried out within specialized fields of interest—health, housing, income, employment, education, free time, institutional administration, and social services.

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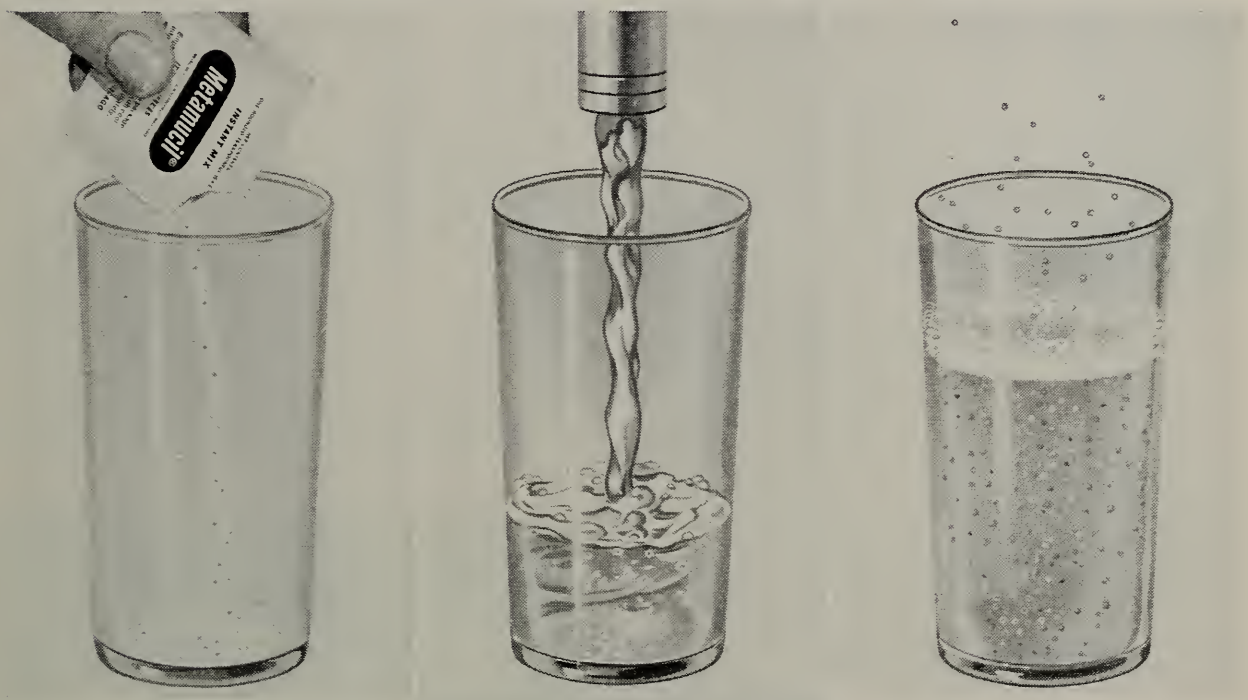

just pour powder from one packet

- each packet is equivalent to one rounded teaspoonful of Metamucil powder

add cool water slowly... it's instantly mixed

all the advantages of smoothage therapy in the relief and correction of constipation

- stimulates normal peristalsis
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- convenient, premeasured-dose packets
- delightful mild lemon flavor

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16 Packets

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HEART BEATS

(This material is provided by the Michigan Heart Association)

New Officers Installed

Ben I. Johnstone, M.D., Detroit, is the new president of the Michigan Heart Association. He took office at the spring meeting of the Board of Trustees in March when Alfred T. Wilson, Grosse Pointe, vice-president of the National Bank of Detroit, was elected chairman of the board. Dr. Johnstone succeeds Donald S. Smith, M.D., Pontiac, and Mr. Wilson succeeds Frank N. Isbey, Detroit. John D. Littig, M.D., Kalamazoo, was named president-elect, Sidney E. Chapin, M.D., Dearborn, secretary, and Walter C. Folley, Detroit, treasurer. Association vice presidents are Mrs. Ruth McEvoy, Muir Clapper, M.D., and Douglas Donald, M.D., all from Detroit; Moses Cooperstock, M.D., Marquette; Milton Shaw, M.D., Lansing, and James C. Zeder, Bloomfield Hills.

B. I. JOHNSTONE, M.D

New board members elected at the annual meeting in February were Harold W. H. Burrows, Birmingham; Roy K. Erickson, Grosse Pointe; J. L. Gillie, Flint; J. King Harness, Detroit; James M. Smith, Detroit; H. Gordon Wood, Grosse Pointe; Richard McCaughey, M.D., Detroit; Richard A. Rasmussen, M.D., Grand Rapids; and Ross V. Taylor, M.D., Jackson. Re-elected members are: Muir Clapper, M.D., Detroit; F. D. Dodrill, M.D., Bloomfield Hills; H. M. Golden, M.D., Flint; Robert Hoving, Jackson; Mrs. Herbert Milliken, Flint; Jack Pickering, Detroit, and Donald S. Smith, M.D., Pontiac.

SRO at "Heart Day" Scientific Session

The first annual "Michigan Heart Day" brought more than a thousand persons to the Statler-Hilton Hotel in Detroit. All of the sessions were well attended but the Scientific Session proved to be a "Standing Room Only" event. Drs. Samuel A. Levine, Boston (Coronary Artery Disease), Thomas M. Durant, Philadelphia (Congestive Heart Failure), and John Stirling Meyer, Detroit (Cerebral Occlusive Disease), addressed an over-capacity audience of more than 600 physicians in the Wayne Ballroom.

Other events in the day-long program were a public forum, at which Louis N. Katz, M.D., Chicago, and Ancel Keys, Ph.D., and Mrs. Keys, Minneapolis, spoke to more than 500 persons; a session for heart unit delegates; a business luncheon and a dinner dance.

Grants for Heart Research

The Michigan Heart Association Research Committee recommendations were approved by the Board of Trustees and a sum of $330,275 has been allocated for the three categories of the Research Program in the following amounts:

Dean's Fund	$ 60,000.00
Medical Student Fellowships	15,000.00
Grants-in-Aid	255,275.00

Grants-in-Aid have been awarded to the following responsible investigators:

Marion I. Barnhart, Ph.D., Wayne State University, Cellular Sites for Synthesis of Proteins Important in Blood Coagulation.

Lloyd M. Barr, Ph.D., University of Michigan, Electrical and Mechanical Activity and Responsiveness of Arterial Smooth Muscle from Normotensive and Hypertensive Animals.

Bernard Bercu, M.D., Wayne County General Hospital, "The Measurement of Myocardial Blood Flow With Radio-

(Turn to Page 958)

"National Heart Research Day" observation in Michigan featured an Awards Luncheon honoring two of the Medical Student Research Fellows of the Michigan Heart Association. F. D. Dodrill, M.D., MHA Past President and Chairman of the Association's Research Committee, is shown with Drake Duane *(left)* and Condon R. Vander Ark *(right)*. Mr. Vander Ark, a junior Medical Student at the University of Michigan, received the Distinguished Achievement Award, and Mr. Duane, a sophomore Medical Student at Wayne State University, received the Meritorious Achievement Award.

as it calms anxiety!

Smooth, balanced action lifts depression as it calms anxiety... rapidly and safely

Balances the mood — no "seesaw" effect of amphetamine-barbiturates and energizers. While amphetamines and energizers may stimulate the patient *—they often aggravate anxiety and tension.*

And although amphetamine-barbiturate combinations may counteract excessive stimulation—*they often deepen depression.*

In contrast to such "seesaw" effects, Deprol's smooth, *balanced* action lifts depression as it calms anxiety—both at the same time.

Acts swiftly — the patient often feels better, sleeps better, within a few days. Unlike the delayed action of most other antidepressant drugs, which may take two to six weeks to bring results, Deprol relieves the patient quickly — often within a few days. Thus, the expense to the patient of long-term drug therapy can be avoided.

Acts safely — no danger of liver damage. Deprol does not produce liver damage, hypotension, psychotic reactions or changes in sexual function—frequently reported with other antidepressant drugs.

Bibliography *(13 clinical studies, 858 patients)*: **1.** Alexonder, L. (35 patients): Chemotherapy of depression — Use of meprobamate combined with benoctyzine (2-diethylominoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. **2.** Bateman, J. C. ond Carlton, H. N. (50 patients): Meprobamate and benactyzine hydrochloride (Deprol) as odjunctive therapy for patients with advanced cancer. Antibiatic Med. & Clin. Therapy 6:648, Nav. 1959. **3.** Beermon, H. M. (44 patients): The treatment of depression with meprobomate and benoctyzine hydrochloride. Western Med. 1:10, March 1960. **4.** Bell, J. L., Tauber, H., Santy, A. ond Pulita, F. (77 patients): Treatment of depressive states in affice practice. Dis. Nerv. System 20:263, June 1959. **5.** Breitner, C. (31 patients): On mentol depressians. Dis. Nerv. System 20:142, (Sectian Two), May 1959. **6.** Gordon, P. E. (50 potients): Deprol in the treatment of depression. Dis. Nerv. System 21:215, April 1960. **7.** Landman, M. E. (50 patients): Clinical trial of a new antidepressive agent. J. M. Soc. New Jersey. In press, 1960. **8.** McClure, C. W., Popas, P. N., Speare, G. S., Palmer, E., Slattery, J. J., Konefol, S. H., Henken, B. S., Wood, C. A. and Ceresia, G. B. (128 patients): Treatment of depression — New technics and theropy. Am. Pract. & Digest Treat. 10:1525, Sept. 1959. **9.** Penningtan, V. M. (135 potients): Meprobamate-benactyzine (Deprol) in the treatment af chronic brain syndrome, schizaphrenia and senility. J. Am. Geriatrics Soc. 7:656, Aug. 1959. **10.** Rickels, K. and Ewing, J. H. (35 patients): Deprol in depressive conditions. Dis. Nerv. System 20:364, (Sectian One), Aug. 1959. **11.** Ruchwarger, A. (87 patients): Use of Deprol (meprabamate combined with benactyzine hydrochloride) in the affice treatment of depression. M. Ann. District af Columbia 28:438, Aug. 1959. **12.** Settel, E. (52 patients): Treatment of depressian in the elderly with a meprobamote-benoctyzine hydrochlaride cambinatian. Antibiotic Med. & Clin. Theropy 7:28, Jan. 1960. **13.** Splitter, S. R. (84 patients): Treatment of the onxious patient in generol practice. J. Clin. & Exper. Psychopoth. In press, April-June 1960.

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.
Supplied: Bottles of 50 light-pink, scored tablets. Write for literature and samples.

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Grants for Heart Research

(Continued from Page 954)

active Sodium" and "A Comparison of Myocardial Blood Flow in the Fibrillating Heart During Cardiac Massage and During Retrograde Perfusion of the Aorta.

Richard Bing, M.D., Wayne State University, Cardiac Metabolism and the Study of Glycolytic Pathways in the Anoxic Heart; Myocardial Metabolism of Fatty Acids.

Pedro Blaquier, M.D., University of Michigan, Renin and Angiotensinase in Various Stages of Experimental Hypertension in the Rat.

James B. Blodgett, M.D., Grace Hospital, Studies of Entrance to the Heart and Great Vessels, Including Open Cardiotomy by Means of Infusion of Arterial Blood into the Proximal Aorta, Occlusion of the Descending Aorta, Cardiac Inflow Occlusion and Cardioplegia.

Herbert Sloan, M.D., University of Michigan, Evaluation of Cardiac Function Following Heart Lung Bypass.

D. Emerick Szilagyi, M.D., Henry Ford Hospital, An Investigation of the Use of Vascular Substitutes in the Replacement of Arterial Segments.

D. G. Vernall, Ph.D., University of Michigan, The Teratogenic Effects of Trypan Blue on the Cardiovascular System of Mice.

John M. Weller, M.D., University of Michigan, Investigation of Abnormalities of Sodium and Potassium Metabolism in Hypertension.

Park Willis, III, M.D., University Hospital, Investigation of the Mechanism of Blood Coagulation with Special Reference to Problems of Thromboembolic Diseases.

Robert F. Ziegler, M.D., Henry Ford Hospital, Continuation of the Measurement and Determination of the Significance of the Areas Inscribed under the Various Electrocardiographic Deflections, Particularly in Multiple Unipolar Precordial Leads, Principally for the Better Detection of Increased Cardiac Chamber Work and Size.

Andrew J. Zweifler, M.D., University Hospital, The Effect of Heparin on Experimental Thrombosis in Dogs.

A. J. Boyle, M.D., Wayne State University, Plasma Colloid Stability in Normal and Atherosclerotic Subjects.

George O. Clifford, M.D., Wayne State University, Mechanism of the Coagulation Abnormalties Induced by Hyperlipemia and Its Modification by Certain Agents.

F. D. Dodrill, M.D., Harper Hospital, Mechanical-Heart Lung Project: Heart Valve Implantation.

Sibley Hoobler, M.D., University of Michigan, Arteriosclerosis and Hypertension.

Thomas N. James, M.D., Henry Ford Hospital, Morphologic Studies of the Human Heart with Clinical Correlation.

Joseph S. Jasper, Ph.D., Wayne State University, A Study of Serum Surface Tension in Atherosclerosis.

Shirley A. Johnson, Ph.D., Henry Ford Hospital, The Effect of the Administration of Oral Anticoagulants and of Heparin on the Blood Coagulation Mechanisms.

Prescott Jordan, M.D., Wayne State University, Aortic Valvular Replacement.

Jan J. Kabara, Ph.D., University of Detroit, Simultaneous Use of Tritium and Carbon-14 Metabolities to Study the Dynamics of Lipid Metabolism.

Sidney D. Kobernick, M.D., Sinai Hospital, The Pathogenesis of the Effect of Exercise on Experimental Cholesterol Atherosclerosis.

Conrad R. Lam, M.D., Henry Ford Hospital, Experimental Cardiovascular Surgery.

Benjamin M. Lewis, M.D., Wayne State University, Pulmonary Capillary Bed in Cardio-Respiratory Disease.

Perry Martineau, M.D., Herman Kiefer Hospital, Blood Viscosity in Relation to Coronary Atherosclerosis.

John Stirling Meyer, M.D., Wayne State University, Pathogenesis and Treatment of Hypertensive Encephalopathy. A Study of Experimental Production of Hypertensive Encephalopathy and the Response to Treatment.

Nicholas J. Mizeres, M.D., Wayne State University, The Neural Effect on the Coronary Circulation.

Yoshikazu Morita, M.D., Wayne State University, 1. Metabolism in Renal Disease (a) Protein metabolism in acute renal failure, (b) Mechanism of acid excretion in chronic renal disease. 2. The Use of Citrate in Regional Anticoagulation During Hemodialysis.

E. E. Muirhead, M.D., Woman's Hospital, The Influence of Renal Cells Grown in Tissue Culture on Experimental Hypertension.

Jan Nyboer, M.D., Harper Hospital, Evaluation of Ultra-Low Frequency Ballistocardiography and Electrical Impedance Plethysmography.

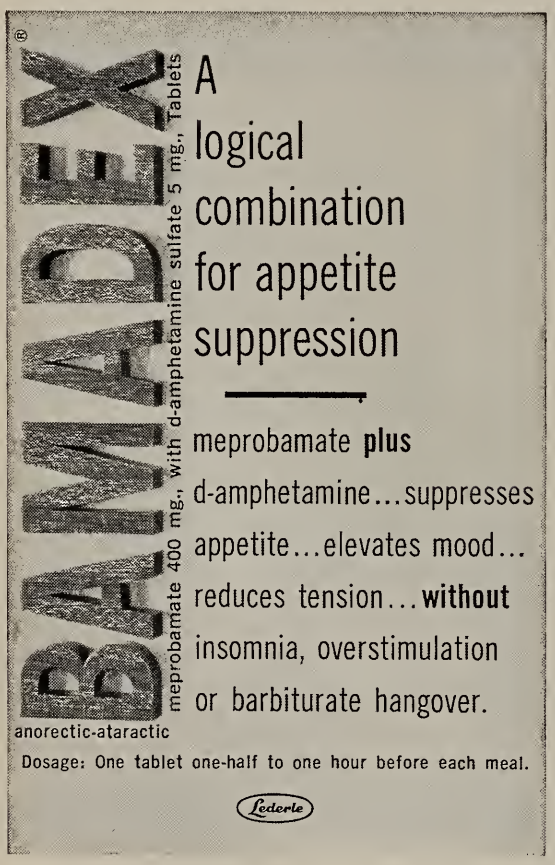
Robert C. Reynolds, University of Michigan, A Study of the Effects of pH and Ionization on the Actions of the Sympathomimetic Amines in the Mammalian Heart.

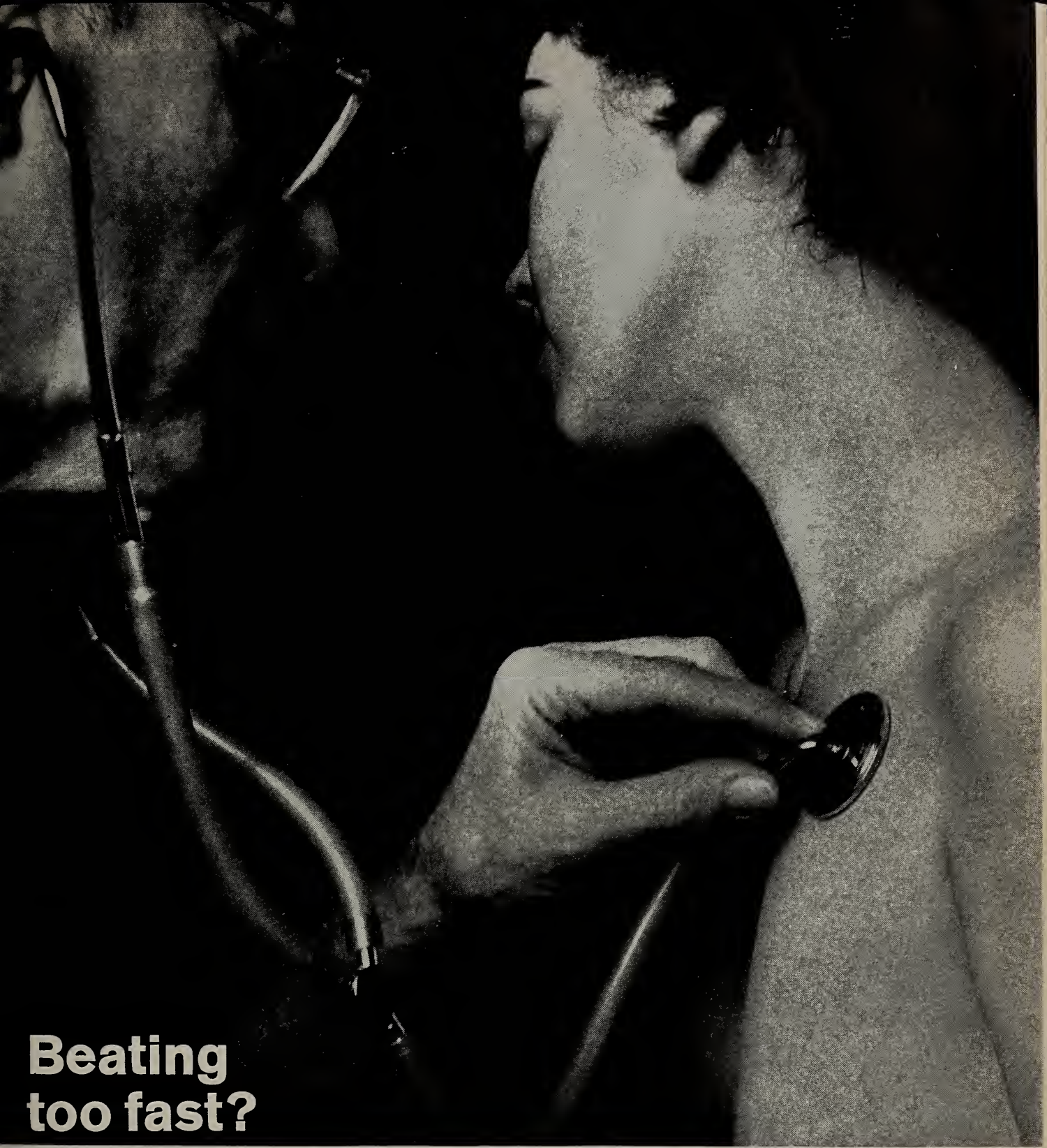
Herbert J. Robb, M.D., Wayne State University, Study of Microscopic Vascular Dynamics in Various Forms of Shock and Study of Vascular Changes Which Occur with Administration of Drugs Which Change the Caliber of Vessels and Affect Their Blood Flow.

Paul A. Rondell, Ph.D., University of Michigan, Factors Influencing the Electrolyte Composition of Vascular Smooth Muscle.

David Sandweiss, M.D., Sinai Hospital, Survey of 200 Patients with Ulcer in Relation to Coronary Heart Disease.

Walter H. Seegers, Ph.D., Wayne State University, Blood Coagulation: Purification of Inhibitors and Mechanisms of Their Action.





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Serpasil has proved effective as a heart-slowing agent in the following conditions: mitral disease; myocardial infarction; cardiac arrhythmias; neurocirculatory asthenia; thyroid toxicosis; excitement and effort syndromes; cardiac neurosis; congestive failure. Serpasil should be used with caution in patients receiving digitalis and quinidine. It is not indicated in cases of aortic insufficiency.

SUPPLIED: Tablets, 0.1 mg., 0.25 mg. (scored) and 1 mg. (scored). Complete information available on request.

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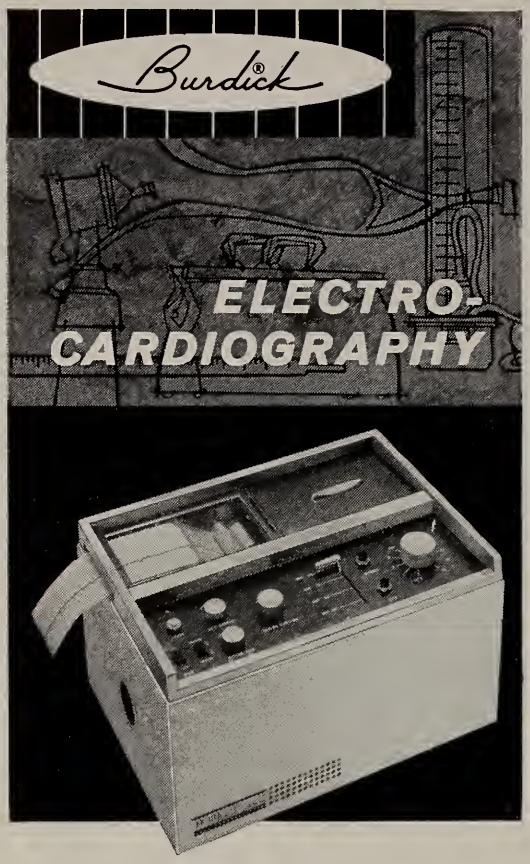

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Pathology Comment

The Biopsy That Let Us Down

How does it happen that even with a biopsy specimen the pathologic changes are sometimes missed? We are indebted in part to the Texas Society of Pathologists for the following reminders that may make the difference between a successful biopsy and a "near miss":

1. Has it been secured from the right site? Wrong areas frequently are biopsied in the nasopharynx, bronchus, or urinary bladder.

2. Is the amount of tissue adequate? Just because we examine the specimen under the microscope, the whole specimen doesn't have to be microscopic in size! Samples should include normal and abnormal tissue . . . don't be skimpy!

3. Improper handling of the specimen is another frequent cause of error. Do not dry it on a piece of gauze. Place it in a fixative promptly. Avoid pinching with clamps.

4. Consult the pathologist about diagnostic problems prior to biopsy. Plans may then be made for bacteriological studies or imprints on such tissues as lymph nodes, where the etiological agent might otherwise be missed. Such procedures must be planned in advance and executed prior to fixation of the tissue.

5. If there is any doubt about the significance of the written report, discuss it with the pathologist. Positive vaginal cytology reports should be confirmed with histological study of tissue from the cervix or endometrium prior to treatment.

6. And don't forget, the more information you can give your pathologist, the better he can evaluate the specimen. Has the patient had previous operations? It is important for the pathologist to be able to review the previous slides.

(This article is provided by the Michigan Pathological Society.)

Conference on Kidney at U-M

The University of Michigan Medical Center will hold a conference on "The Kidney, Its Structure and Function," June 25-26.

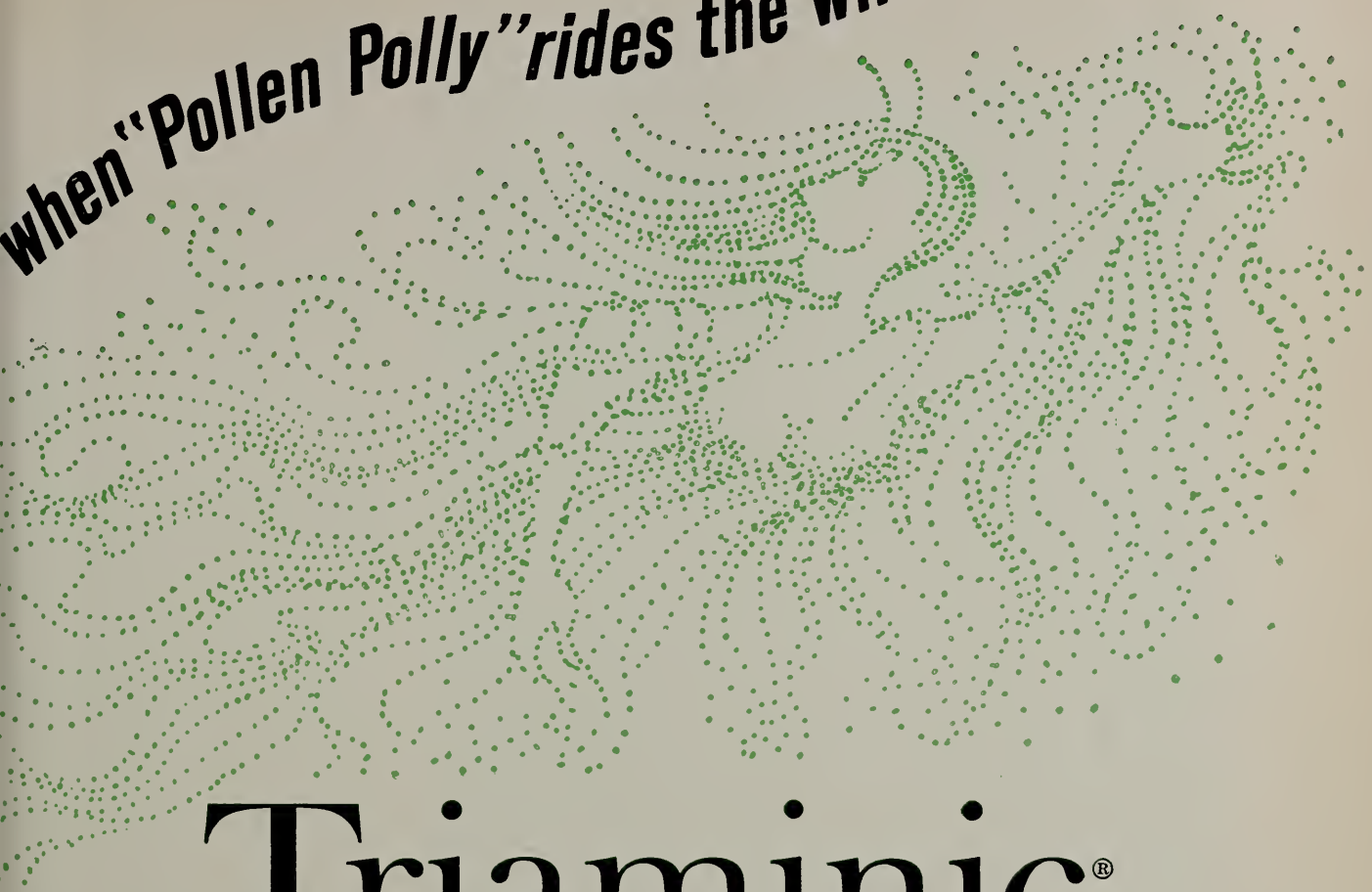
The program will be presented by authorities in the field from throughout the United States.

The event is under the direction of John M. Sheldon, M.D., Ann Arbor.

Sponsoring the conference is Merck Sharp & Dohme.

Say you saw it in the Journal of the Michigan State Medical Society

when "Pollen Polly" rides the wind...



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The miseries of respiratory allergy can be relieved so effectively with Triaminic.[1-5] Triaminic contains two antihistamines plus the decongestant, phenylpropanolamine, to help shrink the engorged capillaries, reduce congestion and bring relief from rhinorrhea and sinusitis.[1] Oral administration distributes medication to *all* respiratory membranes without risk of "nose drop addiction" or rebound congestion.[2,3]

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Phenylpropanolamine HCl	50 mg.
Pheniramine maleate	25 mg.
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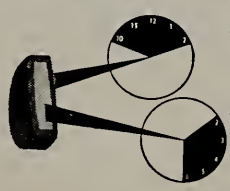
also available:

TRIAMINIC JUVELETS® ½ the formulation of the Triaminic Tablet with timed-release action.

TRIAMINIC SYRUP each teaspoonful (5 ml.) provides ¼ the formulation of the Triaminic Tablet.

References: 1. Fabricant, N. D.: E. E. N. T. Monthly 37:460 (July) 1958. 2. Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. 3. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958. 4. Fuchs, M.; Bodi, T.; Mallen, S. R.; Hernando, L., and Moyer, J. H.: Antibiotic Med. & Clin. Ther. 7:37 (Jan.) 1960. 5. Halpern, S. R., and Rabinowitz, H.: Ann. Allergy 18:36 (Jan.) 1960.

Relief is prompt and prolonged because of this special timed-release action



first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then—the core disintegrates to give 3 to 4 **more** hours of relief

IN MEMORIAM

V. GEORGE CHABUT, M.D., fifty-one, a practicing Northville physician for eighteen years, died April 4, 1960.

Doctor Chabut, born in Youngstown, Ohio, was a graduate of Albion college and the University of Michigan medical school.

He was currently chief of staff of Northville's Community General Hospital and was an active force in the recent re-opening of the facility. Doctor Chabut had been a member of the staff at New Grace hospital since internship 20 years ago. He was chairman of the steering committee of the Wayne County Health and Education Commission, a member of the American and Michigan Trudeau Societies and American School Health Association.

In addition to other medical affiliations, he was also a member of the Northville Rotary club, a 32nd degree Mason and member of the Northville Lodge F.&A.M. No. 186, Northville Commandery No. 39, Moslem Temple and the First Presbyterian church of Northville.

FREDERICK H. COLE, M.D., seventy-four, a Detroit urologist for more than fifty years, died April 14, 1960.

Doctor Cole was a graduate of Albion College, attended the University of Michigan and was graduated in 1908 from the Detroit College of Medicine. He did post-graduate work at the University of Berlin.

At the time of Doctor Cole's retirement three years ago, he was an associate professor at Wayne State University College of Medicine. He was chief of the urology departments of Receiving and Harper Hospitals, a consultant at Herman Kiefer and Highland Park General Hospitals and a public welfare commissioner for three years.

In 1958, Doctor Cole was honored by his colleagues when he received the Fifty-Year Award from the House of Delegates of the Michigan State Medical Society.

He was a member of the Detroit Athletic Club in addition to numerous medical affiliations.

JOHN A. FREEL, M.D., fifty-four, a native of Bay City and a practicing physician there since 1935, died April 20, 1960.

Doctor Freel was graduated from Marquette University and soon after began his Bay City practice. He was a member of St. Joseph's Church, Holy Name Society and the New York Academy of Science.

LUCILE R. GRANT, M.D., sixty-four, a Grand Rapids physician who specialized in allergies, died April 3, 1960.

Doctor Grant was born in AuSable and came to Grand Rapids as a child. She received a bachelor degree from Vassar college and a medical degree from the University of Michigan in 1924, taking postgraduate studies at the University of Chicago.

Doctor Grant was on the staff of Blodgett Memorial hospital.

She was a member of St. Marks Episcopal Cathedral and Alpha Phi sorority.

GEORGE P. GRAYBIEL, M.D., sixty-seven, a Caledonia general practitioner, died April 21, 1960.

Doctor Graybiel took over the practice of his father, Doctor Alex G. Graybiel, at his death in 1927, and had been serving his community since that date. He attended University of Michigan, where he graduated from medical school in 1925.

Doctor Graybiel was known to have one of the finest medical libraries in Western Michigan, part of it inherited from his father and augmented with the best publications since that time. He was a devoted gardener and his Caledonia flower gardens were known as a Kent County show place. He also was an avid sportsman.

He was a member of Emanuel Episcopal church, Hastings; R. C. Hathaway Lodge No. 387, F.&A.M., Caledonia and the Scottish rite and Saladin Shrine temple, Grand Rapids.

J. WINSLOW HOLCOMB, M.D., fifty-two, Grand Rapids physician for twenty-five years and life resident, died April 14, 1960.

Doctor Holcomb was a graduate of South High School, Albion College and the University of Michigan medical school.

He served as a staff physician at Blodgett Memorial and St. Mary's Hospitals. In the last three years, he retired from practice due to a heart ailment and served as health officer for the city of East Grand Rapids and as a staff physician at the Michigan Veterans facility hospital.

Doctor Holcomb was affiliated with Tau Kappa Epsilon and Phi Rho Sigma, and was a former member of Round Table of Grand Rapids and former vice president of Kent County Tuberculosis society.

DON M. HOWELL, M.D., seventy-one, a Saginaw eye, ear, nose and throat specialist since 1942, died April 2, 1960.

Doctor Howell was born in East Tawas, attended the University of Michigan medical school and Wayne State University, where he received his medical degree.

Previous to his coming to Saginaw, he had been a practicing physician in Alma for nine years and in Detroit for eleven years.

He was a member of the Elks Lodge, Masons, Saginaw Club and Saginaw Country Club.

HORACE C. JONES, M.D., sixty-one, head of the X-Ray Department at Blodgett Memorial Hospital, Grand Rapids, died April 20, 1960.

Doctor Jones, born in Arkansas, was a graduate of Arkansas college and the University of Arkansas. In World War II, he served as a captain in the navy medical corps.

(Turn to Page 966)

Sterazolidin®

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a well balanced therapy in all forms of rheumatic disorder

for rapid, effective relief

The combined action of phenylbutazone and prednisone in Sterazolidin results in striking therapeutic benefit with only moderate dosage of both active agents.

In long-term therapy of the major forms of arthritis, control is generally maintained indefinitely with stable uniform dosage safely below that likely to produce significant hypercortisonism.

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Sterazolidin®, brand of prednisone-phenylbutazone: Each capsule contains prednisone, 1.25 mg.; Butazolidin® (brand of phenylbutazone), 50 mg.; dried aluminum hydroxide gel, 100 mg.; magnesium trisilicate, 150 mg.; homatropine methylbromide, 1.25 mg. Bottles of 100.

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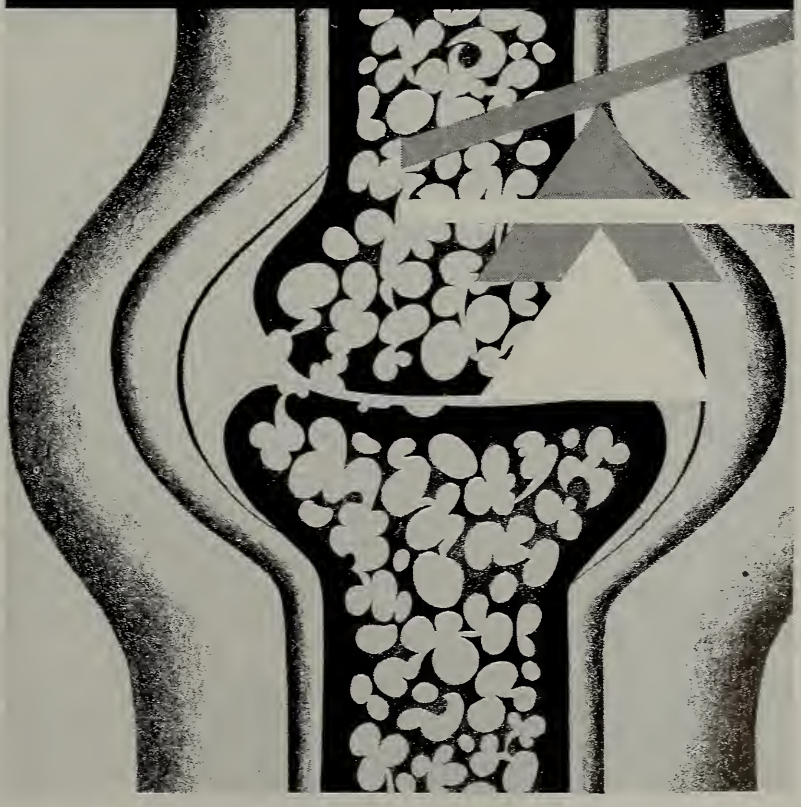

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HORACE C. JONES, M.D.

(Continued from Page 964)

Doctor Jones was with Henry Ford Hospital in Detroit, and in 1946 became head of Blodgett X-Ray department.

Doctor Jones' numerous medical affiliations included past presidency of the Detroit Roentgen Ray Society. He was chairman of the board of elders of Calvary Baptist Church.

MORRIS H. MARKS, M.D., fifty-nine, Detroit physician, died April 17, 1960.

Doctor Marks was born in Pittsburgh, coming to Detroit in 1903. He was graduated from the University of Michigan Medical School in 1924 and the Detroit College of Law in 1937.

He was a member of Pisgah Lodge of B'nai B'rith and a past president, organizer and charter member of the Detroit chapter of the American Academy of General Practice.

He was serving as a board member of the Detroit chapter of the Michigan Association for Emotionally Disturbed Children at the time of his death.

JOSEPH E. ROSENFELD, M.D., sixty-one, Battle Creek physician and civic leader, died April 2, 1960.

Doctor Rosenfeld was one of the physicians who, in the 1930's, recognized that the lower income groups needed some type of assured medical care, and this group, eventually, resulted in the founding of the Michigan Medical Service. He was also an active leader in the local schools and was instrumental in reviving the Community Hospital project which had been halted by the depression of the 30's.

PETER E. TUYNMAN, M.D., forty-one, an assistant Wayne County medical examiner, was killed in an auto accident, April 21, 1960.

A native of Rock Valley, Iowa, Doctor Tuynman was a graduate of Creighton University. He interned and served his residency at Mt. Carmel Mercy hospital in Detroit.

Doctor Tuynman had been an assistant medical examiner from 1949 to 1953, left to go into private practice and returned to the county position last November. He headed the first-aid department at the City-County building.

LEROY J. WALLEN, M.D., fifty-six, Sault Ste. Marie eye, ear, nose and throat specialist, died March 7, 1960.

Doctor Wallen was born in Houghton, and had been a resident of Sault Ste. Marie since 1936.

He was a graduate from Wayne State Medical School in 1933. During World War II, he served in the European Theater of Operations as a captain in the medical corps.

Doctor Wallen was a member of St. Mary's Church and the Knights of Columbus.

A. S. YOUNGS, M.D., eighty-nine, a retired Kalamazoo physician and surgeon, died March 27, 1960.

Doctor Youngs was retired during the last five years, although he served in counseling and consultation. He prac-

ticed medicine in Kalamazoo from 1902 until 1955 and for two years prior to 1902 he practiced in Welston, Michigan.

He was an active civic leader.

In 1947, Doctor Youngs was honored by his colleagues, receiving the MSMS Fifty-Year Award for having practiced medicine for half a century.

Hold Second U-M Doctor's Day

The president of the Michigan State Medical Society was the honorary chairman for "Doctor's Day" at The University of Michigan in May. Milton A. Darling, M.D., Detroit, presided over the second professional Doctor's Day.

The day-long program started at 9 a.m. and included exhibits on current research activities, clinical conferences, tours of the Medical Center, and surgical demonstrations on closed-circuit color television.

John S. DeTar, M.D., Milan, addressed the group at luncheon, on the topic, "The U-M Medical Center: What the Profession Expects of It."

John R. G. Gosling, M.D., Ann Arbor, was chairman of the Doctor's Day arrangements committee.

New Professional Nutrition Society Formed

The formation of a new professional association, The American Society for Clinical Nutrition, was announced during the meetings of The American Society for Clinical Investigation and The American Federation for Clinical Research May 1, 1960. Arrangements are being made to affiliate the ASCN with the American Institute for Nutrition.

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Saturday, June 11, 1960
The Westward Hotel

WEST POINT, NEW YORK
Thursday, Friday, Saturday,
June 16, 17, and 18, 1960
United States Thayer Hotel

***MADISON, WISCONSIN**
Thursday, June 23, 1960
The Holiday Inn

***SPRINGFIELD, MISSOURI**
Sunday, June 26, 1960
The Holiday Inn

***ROANOKE, VIRGINIA**
Saturday, July 16, 1960
The Hotel Roanoke

***SANTA ROSA, CALIFORNIA**
Friday, September 16, 1960
The Flamingo Hotel

***KANSAS CITY, KANSAS**
Friday, September 23, 1960
Battenfeld Memorial
Auditorium

HOUSTON, TEXAS
Saturday, September 24, 1960
The Shamrock Hilton Hotel

DEFIANCE, OHIO
Wed., September 28, 1960
Defiance College

PHILADELPHIA, PENN.
Sunday, October 16, 1960
The Sheraton Hotel

***HARTFORD, CONNECTICUT**
Thursday, October 20, 1960
The Statler Hotel

***GREAT FALLS, MONTANA**
Saturday, October 22, 1960
The Rainbow Hotel

ROCHESTER, NEW YORK
Wednesday, October 26, 1960
The Manger Hotel

CHARLESTON, WEST VIRGINIA
Sunday, October 30, 1960
The Daniel Boone Hotel

SIOUX FALLS, SOUTH DAKOTA
Tuesday, November 1, 1960
The Sheraton-Cataract Hotel

***CHARLOTTE, N. CAROLINA**
Thursday, November 3, 1960
The Hotel Charlotte

***CLEVELAND, OHIO**
Wednesday, November 9, 1960
Pick Carter Hotel

***SOUTH BEND, INDIANA**
Friday, November 18, 1960
The Pick-Oliver Hotel

WESTCHESTER COUNTY, N. Y.
Wednesday November 30, 1960
Westchester Country Club

ST. PETERSBURG, FLORIDA
Saturday, December 3, 1960
Tides Hotel and Bath Club

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Urge Students Enter Medicine

First-hand advice and information was given to interested University of Michigan students recently at a Careers Conference at Ann Arbor.

A panel program was presented by the U-M Bureau of Occupational Information with the cooperation of the Michigan State Medical Society.

Charles J. Tupper, M.D., associate dean of the medical school, was the panel chairman. All the speakers stressed the increasing need for qualified personnel in the many medical and health fields.

The speakers included Robert S. Ideson, II, M.D., Ann Arbor, who told the need for general practitioners, Herbert D. Millard, D.D.S., dentistry; R. W. Lowe, Pharmacy; Miss Theresa Phelps, nursing; John A. Doherty, Michigan Health Council, about para-medical careers, and Doctor Tupper, who talked about the general need for more students in medicine. The panel program was one of three presented during the 1959-60 school year for the underclassmen.

HEADS WAYNE SOCIETY—David I. Sugar, M.D., was installed May 1 as the new president of the Wayne County Medical Society, succeeding Milton R. Weed, M.D. One of Doctor Sugar's first acts as president was to announce the appointment of Clarence I. Owen, M.D., as editor of the *Detroit Medical News*.

In the annual balloting, Wayne members elected Don W. McLean, M.D., as president-elect; Homer A. Howes, M.D., as secretary, and William Bromme, M.D., trustee. Section officers, geographic representatives, delegates and alternates also were chosen.

COLORFUL STORY—An interesting story is an interview printed in the Rochester, New York, *Democrat and Chronicle* on April 27. Richard D. Mudd, M.D., of Saginaw, was interviewed by Columnist Henry W. Clunes about the Lincoln assassination. Doctor Mudd's grandfather, Samuel A. Mudd, M.D., was a physician then at Bryantown, Maryland, and he gave emergency treatment to John Wilkes Booth for the leg injury Booth sustained in leaping from the Lincoln box at the Ford Theatre. Doctor Mudd knew nothing about the assassination. Three months later, Doctor Mudd was sentenced to prison for life. He served four years at the Fort Jefferson prison in the Florida Keyes until he was pardoned by President Andrew Johnson. While at Fort Jefferson, Doctor Mudd was the only doctor to care for 1,500 prisoners. In July, 1961, a monument will be erected to the memory of Samuel A. Mudd, M.D., at Fort Jefferson and the inscription will tell about his heroic services during a yellow fever epidemic at the prison in 1867.

Doctor Richard D. Mudd, who is medical director for the General Motors plant at Saginaw, enjoys reading every book he can find about the Lincoln assassination.

OFFER NEW FILM—A special preview of "MD USA" was held in Detroit May 6 by Smith Kline & French Laboratories. A new documentary film gives insights into the skill and understanding of five American physicians who practice in widely-scattered sections of the nation. The companion film, "MD International" was given the George Foster Peabody Award last year for "Outstanding contribution to international understanding."

Contributions for this "News Briefs" department are invited from individual physicians, from county societies, and from other health organizations. Please direct your contributions to the Editor.

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HONORED BY MMS—E. F. Sladek, M.D., left, Traverse City, was honored recently at the regular meeting of the Grand Traverse-Leelanau-Benzie County Medical Society when he was presented with a certificate of service by Donald Pike, M.D., Traverse City, MSMS Councilor for the Ninth District. The award recognized 12 years of service by Dr. Sladek as a member of the board of directors of the Michigan Medical Service. Dr. Sladek is a former member of the MSMS House of Delegates, former MSMS Councilor 1939-47, former Chairman of The MSMS Council 1944-1947, and Past President of MSMS, 1948.

HONORED BY ACOG—Harold A. Ott, M.D., Birmingham, has been certified as a district vice chairman of the American College of Obstetricians and Gynecologists.

VETERANS ADMINISTRATION CONFERENCE—The Veterans Administration held an Area Conference on Rehabilitation in Dayton, Ohio, in April. M. K. Newman, M.D., of Detroit, presented a paper "Prescribing Practical and Realistic Rehabilitation Objectives for Total Rehabilitation." He also was chairman for an afternoon session.

DOCTORS, COACHES CONFER—More than 125 Michigan doctors of medicine, athletic directors and officials participated in the University of Michigan Athletic Injury Conference in May.

Eleven speakers from the U-M Medical Center and School of Dentistry keyed their talks to prevention and immediate identification of sports injuries. Robert A. Moore, M.D., Ann Arbor, told doctors and school officials some of the major danger signals that might show when athletes are "accident prone."

In addition to the two-day program of lectures, the group enjoyed the Wolverine spring football game.

SEEK STUDY HELP—The U. S. Department of Health, Education and Welfare seeks the cooperation of physicians in a study of eosinophilic xanthomatous granulomatosis and

(Continued on Page 972)

Say you saw it in the Journal of the Michigan State Medical Society

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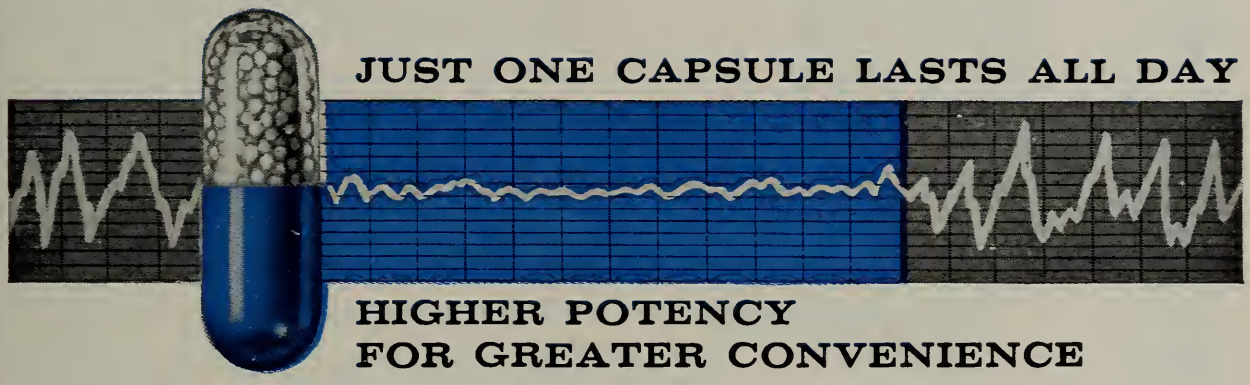

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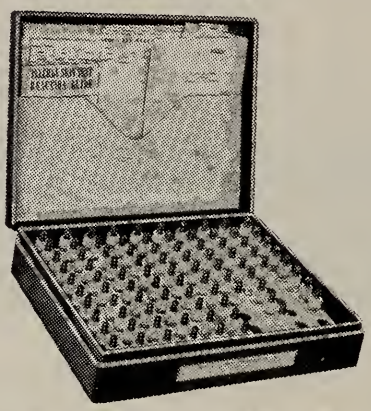

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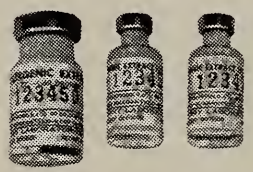

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(Continued from Page 970)

most specifically Hand-Schuller-Christian disease. A study is being conducted by the Radiation Branch of the National Cancer Institute, Bethesda, Maryland. Physicians interested in referring patients should write Charles C. Zubrod, Clinical Director, National Cancer Institute, Bethesda 14, Maryland.

MEDICAL NEWS—It has been called to our attention that on page 438 of the March 1960 issue of THE JOURNAL, we used the trademark name RITALIN as a common name, that is without the use of capitals or an indication that it was a trade mark. The generic name for RITALIN® is "methylphenidate."

WRITE BOOK—A new book, "The Culture of the State Mental Hospital," has been written by H. Warren Dunham, Wayne University professor of sociology, and S. K. Weinberg, Roosevelt University professor, and published by the Wayne Press.

RECEIVES PLAQUE—Robert V. Bucklin, M.D., president of the Saginaw County Medical Society and pathologist at Saginaw General Hospital, was awarded a plaque on March 30 by his staff after he completed cutting the 40,000th tissue he has processed in his 13 years at the hospital. Medical technologists presented the award at a surprise ceremony.

CLERGY, DOCTORS CONFER—A conference between physicians and clergymen, aimed at bringing them into a closer partnership in meeting the needs of patients, was held April 28 at Wayne State University.

Physicians and ministers from across the state attended the afternoon and evening meeting.

TELLS BEAUMONT STORY—A sketch of the life of Dr. William Beaumont and a discussion of the Beaumont Foundation was presented by William M. LeFevre, M.D., MSMS Councilor, to members of the Muskegon Historical Society in April.

Dr. LeFevre reviewed the medical observations made by Dr. Beaumont and explained the role played by members of the Michigan State Medical Society in establishing the shrine on Mackinac Island to perpetuate the memory of Dr. Beaumont's contribution to medicine.

The Beaumont Foundation provides funds for the upkeep of the shrine and for the purchase of artifacts concurrent with the period. Dr. LeFevre is vice president of the Foundation.

MEDICAL MEETINGS U.S.A.

The Forty-Fifth Session of the Trudeau School of Tuberculosis and Other Pulmonary Diseases, June 6-24, Saranac Lake, New York.

The Twenty-Sixth Annual Meeting American College of Chest Physicians, June 8-12, Miami Beach, Florida.

The Fifth Annual Meeting of the U. S. Committee of the World Medical Association, June 14, Hotel Americana, Miami Beach, Florida.

Seventh Institute on Science in Law Enforcement, June 20-25, Western Reserve University, Cleveland, Ohio, announced

by Oliver Schroeder, Jr., director of Western Reserve University Law-Medicine Center.

Two-week intensive course in Neuromuscular Diseases of Children with Special Emphasis on Cerebral Palsy, June 20 to July 1, Cook County Graduate School of Medicine, Chicago; for information, write to John J. Neal, Registrar, Cook County Graduate School of Medicine, 707 South Wood Street, Chicago, Illinois.

Seventh Annual Meeting of The Society of Nuclear Medicine, June 22-25, Stanley Hotel, Estes Park, Colorado.

The Second Annual Oregon Cancer Conference, July 7-8, Portland, Oregon; for information write Roscoe K. Miller, Executive Secretary, Oregon State Medical Society, 2164 S.W. Park Place, Portland 5, Oregon.

Ninth Annual Symposium for General Practitioners on Tuberculosis and other Pulmonary Diseases, July 11-15, Saranac Lake, New York; for information write John N. Hayes, M.D., General Chairman, Box 627, Saranac Lake, New York.

13th Annual Summer Institute on Survey Research Techniques, July 18-August 13, University of Michigan Survey Research Center, Ann Arbor; for information write Survey Research Center, University of Michigan, Ann Arbor.

14th Annual Rocky Mountain Cancer Conference, July 20-21, Denver Hilton Hotel, Denver, Colorado.

Third International Congress of Physical Medicine, August 21-26, at the Mayflower Hotel, Washington, D. C.; for information write Dorothea C. Augustin, Executive Secretary, Third International Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

Annual Otolaryngologic Assembly, September 24-30, University of Illinois College of Medicine, Department of Otolaryngology, Chicago, Illinois; for information write direct to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

Eighth Congress of the Pan-Pacific Surgical Association, September 27-October 5, Honolulu, Hawaii; for information write F. J. Pinkerton, M.D., Director General of the Pan-Pacific Surgical Association, Suite 230, Alexander Young Building, Honolulu 13, Hawaii.

American Otorhinological Society for Plastic Surgery, October 9, Conrad Hilton Hotel, Chicago.

American Medical Association Industrial Health Conference, October 10-12, Hotel Charlotte, Charlotte, North Carolina.

Clinical Conference on Gynecologic Cancer, October 21 and 22, The University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas.

13th Annual Conference on Electrical Techniques in Medicine and Biology, October 31-November 1-2, Sheraton-Park Hotel, Washington, D. C.

88th Annual Meeting of the American Public Health Association, October 31-November 4, Civic Auditorium, San Francisco, California.

SPEAKS IN HOLLAND—Samuel J. Levin, M.D., Detroit, delivered a paper on Gastro-Intestinal Allergy at the meeting of the International Society of Gastroenterologists at The Hague, Holland, April 24, 1960.

ON ACCP PROGRAM—Two Michigan doctors of medicine participated on the program of the 26th annual meeting of the American College of Chest Physicians at

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Miami Beach, Florida, in June. Robert F. Ziegler, M.D., Detroit, was a chairman for a scientific session and he spoke about Electrocardiography in Children, and about Clinical Use of Retrograde Left Ventricular Catheterization in Congenital Heart Disease. Ellet Drake, M.D., Detroit, spoke on Diagnosis and Surgical Correction of Triatrial Heart Type B.

FTC CHARGE—The Federal Trade Commission reports that American Registry of Doctor's Nurse, 1366 National Press Building, Washington, D. C., has been charged by the Commission with misrepresenting that it is a nonprofit organization, and with giving customers the means to misrepresent themselves as registered, graduate or licensed nurses. Ralph Z. Bell, Robert L. S. and Evelyn W. Bickford, and Phillip Sellers, the concern's officials, also are cited in the FTC's complaint.

The complaint charges that their business is not a nonprofit organization of professional nurses, as implied by the trade name, but is a money-making operation conducted solely to sell insurance policies, certificates, pins, emblems and other items to persons employed in doctors' offices.

SPEAKS IN NEBRASKA—George J. Curry, M.D., Flint, was guest speaker at the 92nd Annual Session of the Nebraska State Medical Association in Lincoln, Nebraska, April 25. Doctor Curry's subjects were "Responsibility to the Injured" and "Finger Amputations."

JOINS WSU STAFF—Madeline K. Keech, M.D., an internationally-known authority on rheumatism and arthritis, has been appointed as associate professor of medicine at Wayne State University's College of Medicine. Dr. Keech will arrive from England about July 1 to teach and conduct research on the crippling diseases. Dr. Keech is presently an Empire Rheumatism Council Fellow in the department of medicine at Leeds University, England.

GRANTED LEAVE—Fred J. Hodges, M.D., professor of radiology at the University of Michigan Medical School, has been granted a sabbatical leave from July 1-December 31. He plans research in the field of image amplification and application of television techniques to radiology at selected centers in Europe and the United States.

M.D. LOCATIONS—The following report is made for April:

Assisted by Michigan Health Council

Robert L. Atkinson, M.D.....St. Joseph
Robert B. Johnson, M.D.....Ithaca

Placed by Michigan Health Council

Robert E. Stelle, M.D.....Crystal Falls

HEAR AMA OFFICIALS—The University of Michigan Conference of Affiliated Hospitals in April, heard John C. Nunemaker, M.D., AMA Council on Medical Education and Hospitals, and Wright R. Adams, M.D., AMA's American Board of Internal Medicine. John M. Sheldon, M.D., and Harry A. Towsley, M.D., were the conference program chairmen.

Say you saw it in the Journal of the Michigan State Medical Society

SPEAKER—George H. Koepke, M.D., Ann Arbor, was one of the speakers at the annual meeting of the Michigan Occupational Therapy Association in May.

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports the following topics were covered during April on the weekly Sunday morning program over WJBK-TV in Detroit: Cancer, Hospital Care, Health Careers.

SUPPORT TB PROGRAM—Tuberculosis control in Michigan got a big boost in April when 40 M.D.'s and health authorities, meeting at Kellogg Center, voted to endorse major recommendations of a national conference on tuberculosis held late last year in New York. These recommendations call for intensified treatment programs using available drugs, efforts to measure tuberculosis detection programs, and expanded medical and social research.

Reports reviewed by the conference showed Michigan well ahead of many parts of the nation in its progress against tuberculosis, but the disease is still one of our most serious public health problems, according to C. J. Stringer, M.D., president of the Michigan Tuberculosis Association. The conference agreed that added impetus is needed in the program to control TB.

MINORU YAMASAKI, Detroit architect who designed the new MSMS headquarters, received an honorary Doctor of Humanities degree from Wayne State University May 4. Last year Mr. Yamasaki received first honor award from the American Institute of Architecture for design and execution of the McGregor Memorial Conference Center on the WSU campus.

DEDICATE NEW LABS—New modern research laboratories were opened in April by Parke, Davis & Company in Ann Arbor.

An estimated 1,000 joined with national, state and city officials in the ceremony which marked the opening of the new $13,500,000 laboratories. The new facility is located on a 50-acre site four miles from the center of Ann Arbor. The new buildings, of contemporary design, contain 250,800 square feet of floor space and represent a 115 per cent increase for the firm in area devoted exclusively to research and product development.

RN SCHOLARSHIPS—Three tuition grants of $1,000 each will be awarded soon by Wayne State University's College of Nursing to registered nurses. Recipients will be provided with a tuition scholarship for three years of full-time study required of graduates of hospital diploma schools to complete requirements for the Bachelor of Science in nursing degree.

OFFER LOANS—The American College of Obstetricians and Gynecologists has set up a Higher Education Loan Program (H-E-L-P) to enable resident physicians to complete their training in obstetrics and gynecology. Loans up to $5,000 will be made to help physicians through their specialty training period and early practice. For in-

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formation, write to Donald F. Richardson, Executive Secretary, ACOG, 79 West Monroe Street, Chicago 3.

PARIS MEETING—The First International Congress of Histochemistry and Cytochemistry will be held in Paris August 28-September 3. Write to R. Wegmann, M.D., Congress secretary-general, Institut d' Histochimie Medicale, 45, rue des Saints-Peres, Paris, France.

HONOR GRAD—Ira D. Odle, M.D., Flint, attended the 50th year Purdue University anniversary at Lafayette, Indiana, in April, as an honored graduate of Purdue.

NATIONAL LIBRARY OF MEDICINE—Cold weather and snow conditions delayed progress on the new National Library of Medicine building during the winter but work will step up this summer.

EXAMINATION TIME—Applications for certification in the American Board of Obstetrics and Gynecology, new and reopened, Part I, and requests for re-examination in Part II are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline for receipt of applications is August 1, 1960. Candidates are requested to write to Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6.

EUROPEAN SEMINARS—The American Otorhinologic Society for Plastic Surgery will hold European Seminars in Plastic Surgery of the Head and Neck in various capitals of Europe starting with departure from New York City, July 22, 1961, via chartered plane and arrival in Paris July 23, in time for the International Congress of Otolaryngologists, July 23 to July 28, 1961. Write Joseph G. Gilbert, M.D., Secretary, 75 Barberry Lane, Roslyn Heights, New York.

NEW U-M PROGRAM—The University of Michigan Medical School will launch a special studies program for about 10 per cent of the 200 students entering the Medical School this fall.

The program is an attempt to provide a more challenging medical education for the superior student. It is similar to an "Honors" program at the undergraduate level.

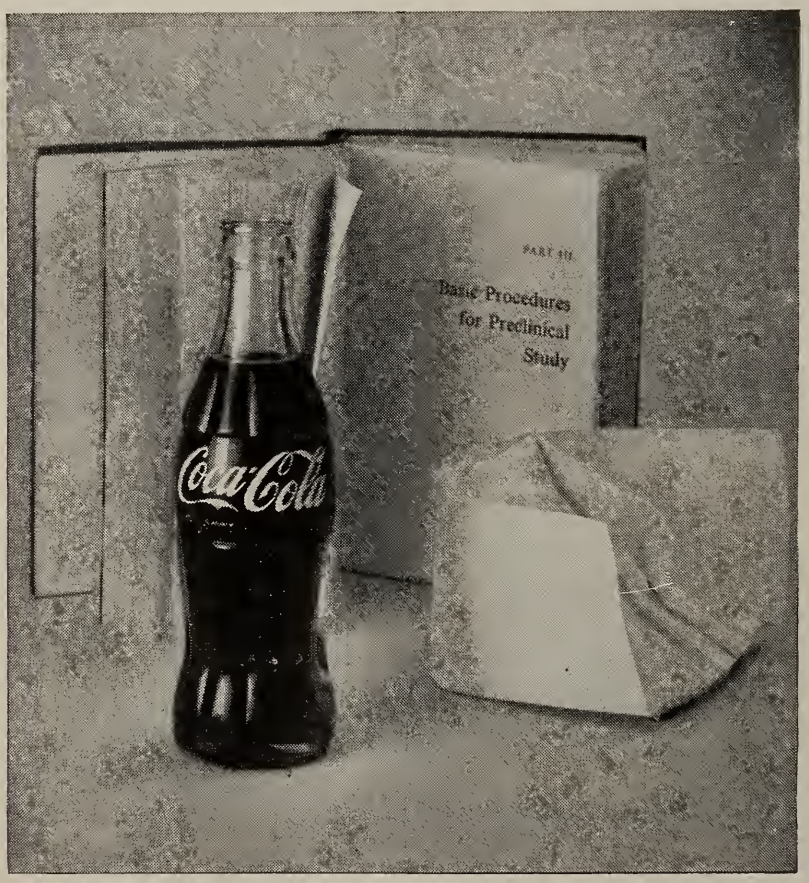
John M. Weller, M.D., associate professor of internal medicine, has been named co-ordinator of the program.

FELLOWSHIP PROGRAM—A fellowship program to further medical education by sending future doctors to remote areas of the world will be started this summer by the Association of American Medical Colleges.

The program will enable selected medical students to gain wide clinical experience and to assist in the continuing war against disease in the backward areas of the world.

The three-year program, established under a $180,000 grant from Smith, Kline & French Laboratories, is open to all medical college students who have completed their third year of study. The program will permit an average of 30 students to participate each year.

INVITES EXHIBITS—Application forms for space in the Scientific Exhibit at the Clinical Meeting of the American Medical Association, November 28 to December 1, Washington, D. C., are now available. Write to Charles H. Bramlitt, M.D., Director, Department of Scientific Assembly, American Medical Association, 535 North Dearborn Street, Chicago 10. Applications close on August 1.



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Otis J. King Jr., M.D. and **W. W. Glas, M.D.,** Eloise, "Spinal Subarachnoid Hemorrhage Following Lumbar Puncture," *A.M.A. Archives of Surgery,* April, 1960.

George E. Block, M.D. and **Philip A. Zlatnik, M.D.,** Ann Arbor, "Giant Fibroadenomata of the Breast in a Prepubertal Girl," *A.M.A. Archives of Surgery,* April, 1960.

Harry M. Nelson, M.D., Esther M. Dale, M.D. and **Gerald S. Wilson, M.D.,** Ann Arbor, "Cytological Diagnosis of Uterine Cancer," *Virginia Medical Monthly,* April, 1960.

COMMUNICATIONS

Mr. William J. Burns
Executive Director
Michigan State Medical Society
Dear Bill:

Perhaps I have not been as observant as I should have lately, but I have just noticed the new typography and make-up of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY—it is most attractive.

It is one of the most attractive state journals I have seen, and for what it is worth I send along my congratulations.

Best personal regards.

Sincerely yours,
Hugh N. Jones
Director of Public Relations

Chicago, Illinois
April 19, 1960

Dear Dr. Haughey:

I just wish to congratulate you on the wonderful issue of the MICHIGAN JOURNAL dedicated to the memory of Dr. Foster. As he was such an eminent pediatrician and pioneer in this area, I wonder if a copy of this journal has been sent to the American Academy of Pediatrics at 1801 Hinman Avenue, Evanston, Illinois. I am sure they would be very grateful to receive it.

Yours very truly,
ROBERT M. HEAVENRICH, M.D.

Saginaw, Michigan
May 3, 1960

* * *

EDITOR: The answer is "yes." Thank you.

WSU Graduates 63

Sixty-three students were graduated by the Wayne State University College of Medicine at the annual commencement June 16 at the State Fair Coliseum. A total of 1,530 June graduates received their Wayne diplomas, after brief comments by President Clarence B. Hilberry and others.

EDITORIAL COMMENT

Answering the Critics with Facts

(Progress in Health Services Publication, May, 1960)

Hospitals and the medical profession are being criticized for unnecessary admission of patients for treatment in general hospitals. Many patients, it has been suggested, might be cared for more economically in nursing homes or treated at less expense in other ways.

Such criticisms can be resolved only as we learn more about present utilization and charges in general hospitals. Criticism that proves valid obviously calls for correction, but unfair criticism only confuses attempts to provide better service. This analysis of Blue Cross subscribers in Indiana is the type of information needed in the planning of high-quality, economical services.

The data analyzed here give little support to the criticism that great numbers of patients are unnecessarily admitted to general hospitals or could be treated less expensively elsewhere. This finding has nationwide implications: While the 843,046 Blue Cross subscribers in Indiana are not an exact cross-section of the population in their state or for the country as a whole, the group is large enough to furnish some measure of the diagnoses causing admission to general hospitals, length of stay, and costs of care. Furthermore, hospital costs in Indiana appear to be close to national averages.

The cost of general hospital care, spread over the total Blue Cross population in Indiana, comes to $19.22 per person per year; of this amount, $11.99 is for surgical patients. The major diagnostic category accounting for the greatest proportion of hospital days and charges per person annually is digestive diseases; most patients in this category, incidentally, are treated surgically. It is no accident that these high-cost services are ones through which recent reductions in mortality have been especially striking. The present cost, while substantial, is in part the price of progress.

Childbirth in the hospital also takes up a large share of the Blue Cross dollar, mainly because almost all births today occur in hospitals against only 37 per cent in 1935. The reduction in infant and maternal mortality supports the value of new medical knowledge applied within the hospital.

(See "Indiana Study Shows Most . . .," Page 874)

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Within its limitations, this study provides valuable data; it also demonstrates how more adequate statistics can be helpful in improving services. Voluntary health insurance agencies could supply more such data for national planning.

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This observation by C. Marshall Lee, Jr., M.D., Boston, raises a question of crucial importance not only to the medical economy but to the whole pattern of our American society. (Dr. Lee comments on these matters in the February issue of the *New England Journal of Medicine.*)

For, as Dr. Lee puts it, the attitude he describes "may be acceptable for the child of an indulgent parent, but it is not appropriate for a free man in a free society."

What can the doctor do to counteract this philosophy and to forestall the socialization of medicine which may be its ultimate product?

First, the doctor should learn all he can learn about our voluntary medical prepayment programs. Physicians should recognize that, in Dr. Lee's words, "Far from being the meddlesome 'third party' for which they have an uneasy fear, (the prepayment program) stands with them in the common effort to preserve a cherished concept of freedom."

Secondly, the doctor—and only he—can make these programs operate to the satisfaction of the patient. Only he can see to it that the subscriber gets full value for the premium dollar he has invested in our voluntary medical care program.

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The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

WORTH QUOTING

"The purpose of the medical reader is to broaden his view, not merely to find a simplified set of rules for earning his bread and butter."—JOSEPH GARLAND, M.D., Editor, *New England Journal of Medicine.*

X-RAY TECHNOLOGY. By Charles A. Jacobi, B.Sc., R.T. (A.R.X.T.), M.T. (A.S.C.P.), Chairman, Medical X-Ray Technology, Oregon Technical Institute, Oretech Branch, Klamath Falls, Oregon; Chairman, Education Committee, Oregon Society of X-Ray Technicians; Chairman, Education Committee, Northwest Conference of X-Ray Technicians; formerly Chief X-Ray and Medical Technologist, Medical Services Division, Atomic Energy Commission, National Reactor Testing Station, Idaho Falls, Idaho and Donald E. Hagen, R.T. (A.R.X.T.), Technical Supervisor for C. Todd Jessell, M.D., and George R. Satterwhite, M.D., Radiologists, Portland, Oregon; Formerly Instructor, Medical X-Ray Technology, Oregon Technical Institute, Oretech Branch, Klamath Falls, Oregon. Second edition. 320 Illustrations. St. Louis: The C. V. Mosby Company, 1960. Price, $10.00.

It is obvious to the reviewer that x-ray technicians will appreciate this revised second edition. The addition of forty-three pages has not spoiled the simplicity and ready graspability of subject matter, which is all important in this type of text.

The contents have been brought up to date and the first seven chapters have been revised to facilitate teaching of fundamental principles. These points are significant, particularly in the x-ray field where automation constantly plods forward.

The book is a good text with emphasis on teaching of standard procedures and practical x-ray technology. The style of writing is clear and the book contents easy to follow. Glossary and Index appear adequate.

Those who use this text will appreciate the paper, printing and structure that the publishers have built into it. The price is fitting.

R.C.H.

PATHOLOGY OF THE HEART. Edited by S. E. Gould, M.D., D.Sc. Professor of Pathology, Wayne State University College of Medicine. Professor of Pathology, University of Detroit School of Dentistry, Detroit, Michigan. Director of Pathology, Wayne County General Hospital, Eloise, Michigan. Research Associate and Lecturer in Pathology, University of Michigan School of Medicine, Ann Arbor, Michigan. With a Foreword by Howard T. Karsner, M.D. Second Edition. Springfield, Illinois: Charles C Thomas, 1960. Price, $32.50.

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July, 1960

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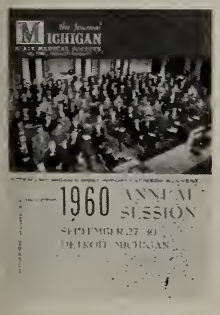

THE COVER

THE JOURNAL cover this month shows the hard-working 1959 MSMS House of Delegates. The House will be back in session soon for the 1960 Annual Session in Detroit. The MSMS Annual Session is "Michigan's Most Important Medical Event." See you there!

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W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
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Wm. Bromme, M.D., Detroit	1960
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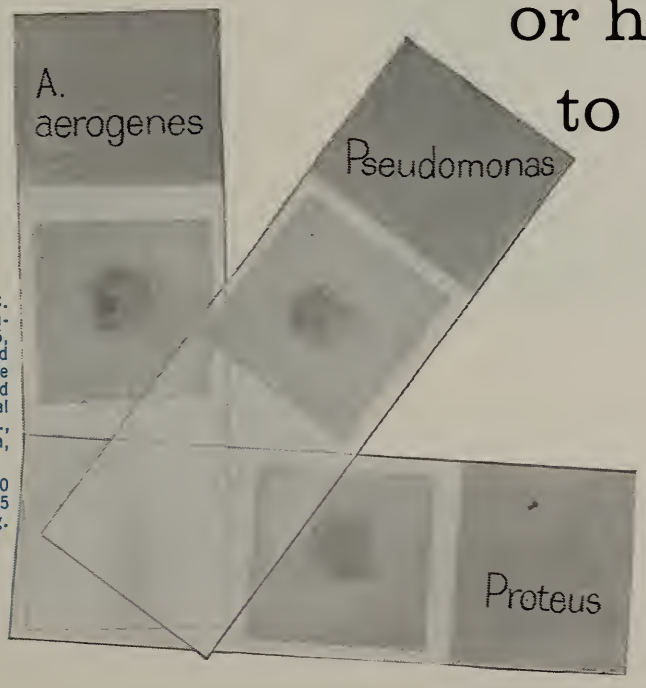

1. Finland, M.; Hirsch, H. A., and Kunin, C. M.: Read at Seventh Annual Antibiotics Symposium, Washington, D. C., November 5, 1959. 2. Hirsch, H. A.; Kunin, C. M., and Finland, M.: **München. med. Wchnschr.** To be published. 3. Roberts, M. S.; Seneca, H., and Lattimer, J. K.: Read at Seventh Annual Antibiotics Symposium, Washington, D. C., November 5, 1959. 4. Vineyard, J. P.; Hogan, J., and Sanford, J. P.: **Ibid.**

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President's Page

A DIRECT APPEAL

Milton A. Darling

President
Michigan State Medical Society

ONE OF THE AIMS of the administration this year is a closer cooperation between the two medical schools and the state society in the field of postgraduate medical education. However, you may not be so familiar with the close liaison between the deans of the medical schools and the state society in fields of procurement of students, finance, medical statutes and intern-resident training in approved hospitals. These and other matters currently are receiving intensive study.

To the members of MSMS I want to make a direct appeal. I am informed there were 640 internships available in this state and only 342 were filled—or approximately 53 per cent. Our two medical schools graduated 242. Two years must elapse before the increased enrollment in Wayne State University will become available. It seems obvious, therefore, that all hospitals approved for intern-resident training are duty bound to improve their training programs.

Medical school graduates are saturated with didactic knowledge. They are anxious to apply this knowledge at the bedside. Here the advice and counsel, as well as sympathetic understanding of the experienced clinician, is deeply appreciated. The intern is not only interested in HOW a procedure is done, but, more particularly WHY it is done. Time spent in meticulous discussion, of what to the clinician may seem a routine matter, often develops an esprit de corps which enhances markedly the educational standing of that hospital.

I urge you to approach our training programs with renewed interest and enthusiasm. I firmly believe that in so doing we will not only serve the best interest of our patients but the public and our profession as well.

MSMS Annual Session Set For Detroit on Sept. 27-29

Speakers at the 1960 Annual Session of MSMS will give special emphasis to the practical application of new medical advances, reports General Chairman Milton R. Weed, M.D., of Detroit.

The total program, he said, was planned to help the practicing physician in his daily work.

The refresher course will begin Tuesday noon and end Friday noon, September 27-30, at the Sheraton-Cadillac Hotel in Detroit.

The House of Delegates will hold its first meeting on Sunday evening, September 25, with its last meeting scheduled for Tuesday evening. This final session will be called a General Meeting of the MSMS membership at which time the incoming President Kenneth H. Johnson, M.D., of Lansing, and the newly elected officers will be inducted into office with due ceremony. This General Meeting will replace the "Officers Night" held in previous years.

Doctor Weed urges MSMS members to mark their calendars now and obtain hotel reservations as early as possible.

Progress on New MSMS Headquarters

To make up for time lost during the 37-day ironworkers' strike during May and June, the erecting contractor for the new MSMS Headquarters is pushing the job with energy.

"Since June 27, when construction work was resumed on the new building, amazing progress has been made," President-Elect Kenneth H. Johnson, M.D., Lansing, told The MSMS Council at its July 15 meeting.

The supporting columns and roof vaults all are in place and workmen are busy completing the exterior work.

The two-story structure on M-78 in East Lansing near US-16 will provide 20,000 square feet of floor space. It is expected the work will be completed in early winter.

This modern building will permit MSMS to better serve its 7,000 members and through them the public. The building will be especially convenient to the doctors and citizens who visit the Society office for meetings and services.

Architects for the project are Minoru Yamasaki and Associates of Birmingham. The firm of Granger Brothers, Inc., Lansing, is the general contractor.

(Turn to Page 998)

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HIGHLIGHTS of MSMS Council Meeting

Meeting of May 18, 1960

A total of sixty-seven items was considered at this May 18, all-day meeting of The Council held in Detroit and attended by all but three members.

● Financial Report for the month was presented, during which finance chairman O. B. McGillicuddy, M.D., summarized MSMS assets, present and future expenditures for the new building and amount of loan needed in 1960 to complete the edifice.

The Council recommended that a reserve of a minimum of $50,000.00 be maintained in the general fund account.

● Relative Value Study. Chairman Luther R. Leader, M.D., Detroit, reviewed the progress of his Committee which has held the following meetings: Sunday, April 24; Saturday-Sunday, May 7-8, May 21-22, and June 4-5. Following questions concerning various aspects of this monumental study, the report was received as an interim report with thanks to the hard-working Committee.

● Report on National Congress on Prepaid Health Insurance held in Chicago, May 12-13 was presented by MSMS representatives J. W. Rice, M.D., Jackson; A. J. Day, M.D., Detroit, and D. N. Sweeny, Jr., M.D., Detroit. The Committee made two recommendations.

1. "That the MSMS Council consider the desirability of adding a socio-economist to the staff of MSMS, for it is apparent that economics and like issues are generally beyond the scope of the doctor, and in this increasingly vital area, the Michigan State Medical Society should be constantly and expertly informed (six state societies presently employ economists on their staffs).

2. "That The Council read the presentation of Arthur Kemp, Ph.D., AMA economist, and invite this gentleman to address as many officers and committees of MSMS as would be practical." These recommendations were approved by The Council—the matter of employing a socio-economist being referred to the Medical Care Insurance Committee for report and recommendation; further a mimeographed copy of the report was ordered sent to every member of The Council. Doctors Rice, Day and Sweeny were thanked for their outstanding presentation.

● Michigan Medical Service. President G. Thomas McKean, M.D., presented a progress report on Michigan Medical Service and its finances; further on the State Insurance Commissioner's Hearings to review MSMS request for necessary rate increase scheduled for Detroit, May 24, and Grand Rapids, May 27. The Council approved the Michigan Medical Service position as expressed in President McKean's outline of remarks to be presented at the State Hearings; further The Council requested that an opportunity be given MSMS representatives to be heard at the two State Hearings. The Council Chairman was authorized to select the MSMS representatives, and the Public Relations Counsel was requested to prepare and release news statements necessary to convey the MSMS position prior to and during the time of these hearings.

● Council Chairman Meier reported that a letter had been sent to the Kefauver Committee investigating drugs, stating that the scientific viewpoint had not been adequately represented at these hearings.

● Community Hospital Authority. The State Society reply to the Wayne County Medical Society re its questions concerning the Community Hospital Authority was read in its entirety.

● Progress Report on New MSMS Headquarters Building was presented by President-Elect K. H. Johnson, M.D., including recommendation for a product for roof covering; also April 13 meeting with Yamasaki & Associates re interior design and costs thereof.

Progress on the building has been delayed by the structural steel and reinforced steel workers' strike.

● Medical Credit Insurance. This proposed plan developed by Richard E. Straith, M.D., and referred by C. I. Owen, M.D., Editor of the *Detroit Medical News*, was referred to the appropriate MSMS Committee for study and recommendation.

● An alphabetical index of all MSMS members, as well as by counties, was authorized for the next Roster of the Michigan State Medical Society.

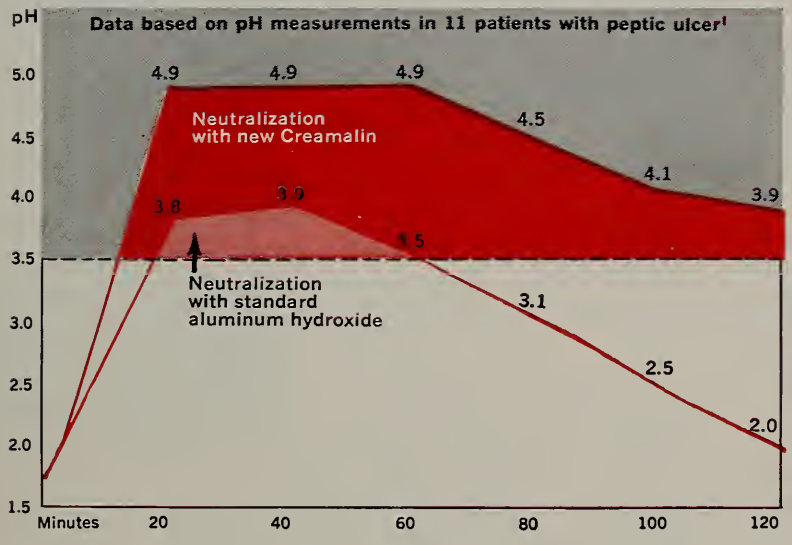
● Report of White House Conference on Children and Youth, as presented by R. M. Heavenrich, M.D., Saginaw, Chairman of the MSMS Child Welfare Committee, was received with thanks.

● Report on National Blue Shield Professional Relations Conference held in Chicago, February 1-2-3,

(Continued on Page 1000)

At the site of peptic ulcer

Following determination of basal secretion, intragastric pH was continuously determined by means of frequent readings over a two-hour period.



neutralization is much faster and twice as long with

New CREAMALIN® ANTACID TABLETS

New proof in vivo[1] of the much greater efficacy of new Creamalin tablets over standard aluminum hydroxide has now been obtained. Results of comparative tests on patients with peptic ulcer, measured by an intragastric pH electrode, show that new Creamalin neutralizes acid from 40 to 65 per cent faster than the standard preparation. This neutralization (pH 3.5 or above) is maintained for approximately one hour longer.

New Creamalin provides virtually the same effects as a liquid antacid[2] with the convenience of a tablet.

Nonconstipating and pleasant-tasting, new Creamalin antacid tablets will not produce "acid rebound" or alkalosis.

Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive, short polymer dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles of the powder offer a vastly increased surface area for quicker and more complete acid neutralization.

Dosage: Gastric hyperacidity — from 2 to 4 tablets as necessary. Peptic ulcer or gastritis — from 2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed whole with water or milk, or allowed to dissolve in the mouth. **How supplied:** Bottles of 50, 100, 200 and 1000.

1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: **J. Am. Pharm. A.** (Scient. Ed.) 48:384, July, 1959.

Winthrop LABORATORIES
New York 18, N. Y.

for peptic ulcer ■ gastritis ■ gastric hyperacidity

Highlights of MSMS Council Meeting

(Continued fom Page 998)

1960, was presented by G. Thomas McKean, M.D., Detroit, MSMS representative.

● Wm. M. LeFevre, M.D., Muskegon, reported on statistical information survey to be conducted in Muskegon by the U. S. Department of Health, Education, and Welfare; Councilor LeFevre was authorized to contact the County Medical Society Officers in his District to provide helpful information regarding the forthcoming survey.

● Speaker J. J. Lightbody, M.D., Detroit, reported on schedule for 1960 MSMS House of Delegates meetings, and on number of House of Delegates committee meetings held during the past month, totaling eight.

● Legal opinions. Legal Counsel Lester P. Dodd presented several legal opinions, including question of the Secretary of State Board of Pharmacy re use of generic versus trade name drugs. The Council felt that because current practice permits substitution of drugs *upon the individual approval of the prescribing physician*, the State Society does not believe the proposed rule of the Board of Pharmacy is necessary and supports the statements previously made by the former Chairman of The Council, E. H. Schiller, M.D., of Detroit.

Committee Reports. The following Committee reports were presented to and considered by The Council:

(a) Preventive Medicine Committee, meeting of February 25; Legal Affairs Committee, March 3; Medical Care Insurance Committee, March 16, and April 20; Joint Meeting of Geriatrics and Mental Health Committees, March 22; Geriatrics Committee, March 22; Mental Health Committee, March 22; Liaison Committee with Michigan Medical School, March 30; Ad Hoc Committee Concerning Practice of Chiropody, March 30; Ad Hoc Committee on Officers Night Ceremony, March 7; Committee on National Defense, March 30; Rheumatic Control, April 30; Liaison with Michigan Chapter of Health Insurance Council, May 4; Ethics Committee, May 11; and Postgraduate Medical Education Committee, May 12.

● Appointments: 1. Luther R. Leader, M.D., Detroit, was appointed as MSMS representative to the Citizens for Michigan Study Committee.

2. Liaison Committee with Michigan Hospital Association was appointed: B. P. Brown, M.D., Chairman, Charlotte; Charles R. Bacon, M.D., Coldwater, S. Albert Fiegel, M.D., Sturgis, J. D. Fryfogle, M.D., Detroit, Henry A. Scovill, M.D., Ypsilanti and A. R. Vanden Berg, M.D., Grand Rapids.

3. Representative to Permanent Conference Subcommittee to Study Utilization of Practical Nurses in Hospitals: E. M. Vardon, M.D., Detroit, Chairman, W. W. Babcock, M.D., Detroit, and Lester P. Dodd, LL.B., Detroit.

4. Representative to National Medical Civil Defense Conference, June 11; John R. Heidenreich, M.D., Daggett.

5. Advisory Committee on Vocational Rehabilitation: F. D. Steiner, M.D., Detroit, Chairman, S. E. Andrews, M.D., Kalamazoo, H. C. Hansen, M.D., Battle Creek, J. W. Rae, Jr., M.D., Ann Arbor, and C. W. Sellers, M.D., Detroit.

● Upper Peninsula Medical Society meeting. Vice Chairman of The Council T. P. Wickliffe, M.D., extended an invitation to all members of The Council to attend the June 17-18, U.P. Medical Society meeting in Escanaba.

The Declaration of Geneva rather than the Hippocratic Oath was taken at the first commencement exercises at Albert Einstein College of Medicine, Yeshiva University, New York City. Fifty graduating students pledged "not to use their medical knowledge contrary to the laws of humanity" or to "permit considerations of religion, nationality, race, party politics, or social standing to intervene between duty and patient."

Michigan Medical Meetings and Clinic Days

1960	*Events*	*Location*
September 25-30	Michigan State Medical Society Annual Session	Detroit
September 27-29	Annual Meeting, Women's Auxiliary to Michigan State Medical Society	Detroit
September 28-29	Annnal Meeting, Medical Assistants to Michigan State Medical Society	Detroit
December 1-3	Western Surgical Association	Detroit

Michigan Youth Wins Award From AMA for Science Work

Winner of one of the two top American Medical Association awards at the National Science Fair—International in Indianapolis, Indiana, was an eighteen-year-old Michigan boy, Philip C. Bockman, a senior at Ottawa Hills High School in Grand Rapids.

Philip C. Bockman

His award, which consisted of a citation and an all-expense trip to the AMA's Annual Meeting in Miami Beach June 13-17, was presented for his exhibit on "Construction and Insertion of a Prosthetic Tendon." The awards were made at a special Health Awards Banquet in the Indiana Ballroom attended by almost 1,100 students, teachers, counselors and sponsors at the annual competition.

At the Miami meeting, the Michigan delegation entertained the brilliant student at one of its breakfast-caucuses.

Philip's exhibit, in which he developed a stainless steel prosthesis, incorporating the Ivalon sponge, for an improved connection with the muscle and bone, was chosen by the AMA judges from a field of 356 entrants from 44 states, the District of Columbia, Puerto Rico, Thailand, Japan, Germany and Canada.

The National Science Fair is the annual climax of local and regional fairs, many of which are sponsored or assisted by state and county medical societies and their Auxiliaries in order to attract talented high school students into the study of medicine.

Two News Committees Appointed For Annual Session

The two doctor committees which serve in a liaison capacity with media representatives during each Annual Session and meetings of the House of Delegates were announced this month by President Milton A. Darling, M.D., and Speaker J. J. Lightbody, M.D.

The House of Delegates News Committee works in the News Room with MSMS staff members and relays information and action taken by the Delegates to radio, TV and press representatives.

The committee members are veterans who have long served MSMS and newsmen in interpreting technical information. They are primarily responsible for the commendation received by MSMS for its superior news coverage services.

The second committee, Scientific News Committee, serves reporters during the scientific meetings of the Annual Session beginning Tuesday afternoon.

Committee members are:

House of Delegates News Committee—J. J. Lightbody, M.D., Detroit, Chairman; Milton A. Darling, M.D., Detroit; H. F. Falls, M.D., Ann Arbor; Milton R. Weed, M.D., Detroit, and D. Bruce Wiley, M.D., Utica.

Scientific News Committee—H. F. Dibble, M.D., Detroit, Chairman; A. B. Gwinn, M.D., Hastings; J. J. Lightbody, M.D., Detroit; A. E. Schiller, M.D., Detroit; Milton R. Weed, M.D., Detroit, and C. L. Weston, M.D., Owosso.

Star on Medical Show

Three men with strong Michigan ties, including a Detroit surgeon, had prominent roles in the tribute to American doctors when "MD USA," latest in the award-winning "March of Medicine" specials was telecast over NBC on May 27.

The program focused on five American doctors practicing in widely-scattered sections of the country. Despite their varied practices, and though the five have never met, their lives are strongly linked by the chain of dedication.

Among those who participated in the program are David B. Dolese, M.D., William J. Mills, Jr., M.D., and James Sargent, a University of Michigan Medical student who will graduate next year.

Six years ago Doctor Dolese, a Detroiter, went to Ganado, Arizona, to "fill in" as surgeon at the mission hospital for Navaho Indians. He agreed to stay two months.

Since then his work has become so successful that it attracted the producers of "March of Medicine."

Doctor Mills, one of the four other doctors whose work was shown, interned and served his residency at University Hospital in Ann Arbor. On the program, he was pictured at work in Alaska where he now practices.

James Sargent assists Dan Dorchester, M.D., during the summers in the doctor's varied practice in the quiet community of Sturgeon Bay, Wisconsin, and the rugged country to the north. Doctor Dorchester and Mr. Sargent were shown at work.

Oakland Doctors Hail Press

The Oakland County Medical Society has presented a public service award to the Pontiac Press for its coverage of health and education in the community.

Harvey Zuckerberg, medical and educational writer for the Press, accepted the award May 4 from Dr. Walter J. Zimmerman, Society president, at the organization's annual dinner meeting in Pontiac.

The plaque reads: "The Oakland County Medical Society takes pleasure in recognizing the Pontiac Press for outstanding service to the people of Oakland County and surrounding areas, through the publishing of authentic, informative and current articles and editorials on the subject of health and education. In this manner, The Pontiac Press has added lustre to its long record of service in the public interest."

Ingham Honors Science Scholars

Ingham County Medical Society gave a professional pat-on-the-back to fifty-three Lansing area science students who are members of the Lansing Science Seminar.

The recognition program at Everett High School heard Stanley J. Idzerda, dean of the Honors College at the Michigan State University, discuss philosophy and science. Members of the Woman's Auxiliary to the Ingham County Medical Society, who work alongside Lansing area doctors in community projects, assisted with a reception following the meeting of May 26.

As part of its public relations program, which is directed by Co-Chairmen D. Bonta Hiscoe, M.D., and James C. Neering, M.D., the Ingham Society has taken an active interest in the Science Seminar. The interest follows the positive program by the Ingham County Medical Society to encourage students with a scientific inclination in the hope that some will recognize the advantages of a career in medicine.

Three members of the Society serve as resource persons to the Seminar along with other public spirited citizens in Ingham County representing business, industry, Michigan State University and the Michigan Department of Health. The three are Richard Bates, M.D., Norman Henderson, M.D., and Clayton Lewis, M.D.

Other Ingham Society members volunteer their serv-

(Continued on Page 1014)

Says Cost Is Great For New Medical Schools

(The following is an excerpt from a news release from the W. K. Kellogg Foundation at Battle Creek)

The number of applicants to traditional medical schools is now about twice the freshman enrollment capacity and the cost of medical education is believed to be a factor in the downward trend of applications during the last decade.

This is in face of the public's greatly increased demand for medical care, brought about by the growth in population, increased prosperity, the growing percentage of the aged in our population, and pre-paid hospitalization and surgical insurance covering the majority of American citizens.

In mid-1955, the ratio of physicians to population was approximately 132 doctors per 100,000 people. Based upon projected deaths and retirements and upon the present rate of graduation from U. S. medical schools and new licentiates from foreign medical schools, this ratio could drop to as low as 123 physicians to 100,000 persons by 1970. Medical and hospital authorities agree that we must not go below the present physician-population ratio and there is expectation that we will need to increase this ratio if qualitative and quantitative demands for medical care continue to grow.

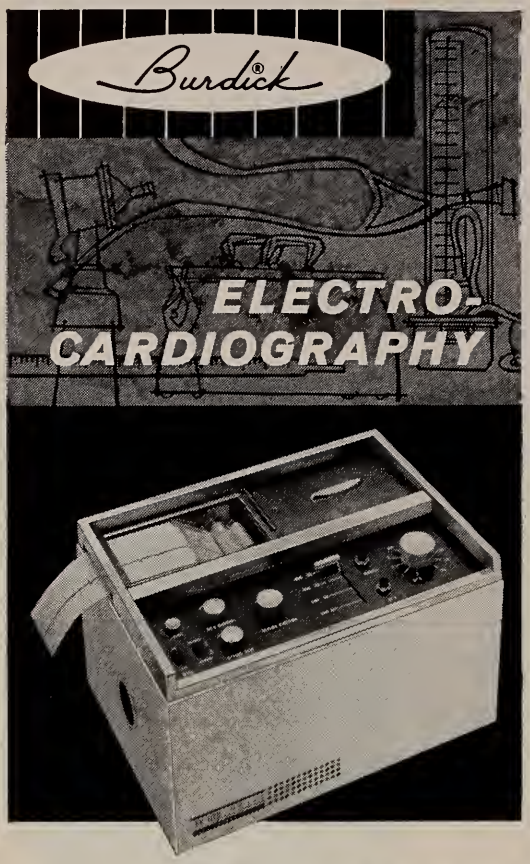
Currently within the United States there are 86 medical schools with four-year programs and three schools of the basic medical sciences with two-year programs. To maintain the present physician-population ratio, projections indicate that by 1975 medical schools should graduate 11,000 physicians or an increase of 3,600 over the present annual number of graduates. Approaches to attain this goal might be the further expansion of enrollment in existing schools, the founding of new programs of the basic medical sciences, or of new four-year medical schools to equate to the results which might come from the establishment of some twenty to twenty-four new two-year and four-year medical schools.

Many communities have shown an interest in establishing new medical schools but the cost is great. Medical teaching centers built around hospitals are expensive to build and maintain. Primarily for this reason, two university medical centers established recently had initial costs of $27 and $28 million, respectively.

SOCIO ECONOMICS 1013

HIC Distributes 125,000 Manuals About Simplified Claim Forms

More than 125,000 copies of the manual, "Simplified Claim Forms for Accident and Health Insurance—A Report to the Physician," have been distributed to members of the medical profession by their societies in thirty-nine states. This report is made by the Health Insurance Council. The manual was mailed to every MSMS member, and extra copies are available at the MSMS headquarters.



. . . an integral part of modern practice

Has the diagnostic equipment in your office kept pace with your own knowledge of new drugs, medicines and therapeutic technics? If not—call in your Burdick man!

He'll bring you up to date on the latest advances in electromedical instrumentation—as for example, the Burdick dual-speed electrocardiograph. Determine your net cost of new equipment, taking into consideration the income tax savings from annual depreciation allowances. This can make the purchase of new professional equipment far more attractive financially than you may have realized!

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The Council reports also that its state committee program, created to meet and work with local medical and hospital groups, is now under way in every state and District of Columbia with some 500 insurance company representatives participating. MSMS has such a liaison committee with Geo. W. Slagle, M.D., Battle Creek, chairman.

The use of Standardized Attending Physician's Statements, developed by the Council, has been endorsed by insurance companies providing 85 per cent of the group accident and health insurance written by the insurance business. In addition, a "steadily increasing number of companies" are adopting the standardized claim forms for individual and family accident and health insurance. The Standardized Attending Physician's Statements—developed in cooperation with the American Medical Association—are designed to reduce paper work for physicians, and at the same time provide insurance companies with the medical information they need to process and pay claims.

AFGE Health Benefit Plan

There are about forty different health benefit plans which will be offered to Federal employes through the Federal Employes Health Benefits Program scheduled to go into effect in July, 1960. A brochure, describing each individual plan, will be given to every employe who is eligible to enroll in this particular program.

Ingham Honors Science Scholars

(Continued from Page 1006)

ices to speak at the Seminar on medical topics. Doctor Bates and Dr. Jerome Cordes participated in the April 29 meeting of the group to conduct a program on the heart. William D. Cheney, M.D., and Charles Long, M.D., Lansing radiologists, appeared at the May 19 program to discuss aspects of their specialty.

The Lansing Science Seminar was organized two years ago by the Lansing Board of Education. Membership is determined on the basis of scientific and general scholarship as well as upon recommendation by the student's teachers and the student's interest in science.

Say you saw it in the Journal of the Michigan State Medical Society

KANTREX®

INJECTION

Kanamycin Sulfate Injection

...a highly potent, bactericidal antibiotic for combating staph and gram negative infections

...well tolerated when used on a properly individualized dosage schedule which does not induce excessive blood levels

"In many instances its effect has been dramatic and life saving . . ."[1]

"Six of the patients who survived were considered to be terminally ill at the time kanamycin was started but showed dramatic improvement and eventual complete recovery."[2]

"...indeed, the results [with kanamycin] are the most remarkable ever achieved with otherwise fatal staphylococcal infections that we have ever seen."[3]

"There appears to be no doubt that kanamycin has been lifesaving in those instances in which organismal resistance precludes the use of other antimicrobials."[4]

Information on dosage, administration and precautions contained in package insert or available on request.

SUPPLY: KANTREX Injection, 0.5 Gm. kanamycin (as sulfate) in vial containing 2 ml. volume. KANTREX Injection, 1.0 Gm. kanamycin (as sulfate) in vial containing 3 ml. volume.

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BRISTOL LABORATORIES, SYRACUSE, NEW YORK

HEART BEATS

(This material is provided by the Michigan Heart Association)

Second Annual "Michigan Heart Day"

Following the success of the first annual "Michigan Heart Day" Scientific Session, plans are now advancing for a second. Already determined for the 1961 session are the date and location: Saturday, February 11, 1961 in Detroit. More information will be reported in the September "Heart Beats."

Heart Association's Scientific Sessions, October 21-23 in St. Louis

The American Heart Association's 33rd annual Scientific Sessions, at Kiel Auditorium, St. Louis, from Friday, October 21 through Sunday, October 23, will present six sessions of broad clinical interest to run concurrently with the investigative scientific programs.

The six clinical programs, stressing the application of findings in cardiovascular research, will be composed of symposia, panels, lectures of general interest and submitted papers on recent results of research. As in the past, these sessions have been classified by the American Academy of General Practice as acceptable for Category II credit for Academy members.

Some of the highlights of the sessions are:

Friday, October 21—The Lewis A. Conner Memorial Lecture on "Physiology of the Circulation as Viewed by the Internist," by Eugene A. Stead, Jr., M.D., Duke University of Medicine. "Fireside Conferences" sponsored jointly with the American College of Cardiology are scheduled for the evening.

Saturday, October 22—Presentation of the Association's Albert Lasker Award; the George E. Brown Memorial Lecture on "Clinical Physiology of the Splanchnic Circulation," by Stanley E. Bradley, M.D., Columbia University College of Physicians and Surgeons.

Sunday, October 23—Three symposia on the subjects of "Complete Heart Block," "Nondietary Factors in Coronary Artery Disease," and "Lipids and Arteriosclerosis." Following a similar program presented successfully last year, Sunday's session will also include morning and afternoon showings of cardiovascular films, each of which will be introduced and discussed by the author or other authority on the subject.

This year for the first time a session for dentists has been scheduled to be held on Friday afternoon. Also, following its enthusiastic acceptance in 1959, a program for nurses has been scheduled for Saturday morning and afternoon.

As in previous years, scientific and industrial exhibits will be on display in the auditorium.

Forms for registering and reserving accommodations may be obtained from the American Heart Association, 44 East 23rd Street, New York 10, N. Y.

Technician Course Continues

The five-day course in techniques of prothrombin testing for technicians will continue to be given during the coming year. The course is offered by the anticoagulant unit and the department of postgraduate medicine of the University of Michigan Medical Center with support from the Michigan Heart Association.

The program provides individual instruction for one or two technicians at a time, and is open throughout the year to individuals engaged in medical technical work. Laboratory and registration fees are underwritten by the Association. Travel and housing expenses are not covered and should be arranged for by technicians through their employers.

For further information and application forms write to the Medical Director, Michigan Heart Association, 3919 John R Street, Detroit 1.

Directory of Cardiovascular Films

A Directory of Cardiovascular Films for use as a guide to clinicians, investigators, medical schools and others, has been compiled by the American Heart Association. The 106-page booklet lists 273 films on the cardiovascular system, describes them briefly and evaluates many of those listed. It also includes a list of film sources and subject and author indices. The Directory is available for $1 from the Michigan Heart Association, 3919 John R Street, Detroit 1.

New Monograph Series Published by AHA

A new monograph series of interest to physicians, investigators and students in the cardiovascular field has been inaugurated by the American Heart Association.

First publication in the series, a "Symposium on Congestive Heart Failure," brings together articles published originally in the January, February and

(Continued on Page 1030)

s it calms anxiety!

mooth, balanced action lifts epression as it calms anxiety... apidly and safely

ances the mood – no "seesaw" ct of amphetamine-barbiturates n. energizers. While amphetamines energizers may stimulate the patient *tey often aggravate anxiety and sion.*

n although amphetamine-barbiturate oinations may counteract excessive ulation—*they often deepen depression.*

ontrast to such "seesaw" effects, rol's smooth, *balanced* action lifts ession as it calms anxiety—both at the e time.

Acts swiftly – the patient often feels better, sleeps better, within a few days. Unlike the delayed action of most other antidepressant drugs, which may take two to six weeks to bring results, Deprol relieves the patient quickly – often within a few days. Thus, the expense to the patient of long-term drug therapy can be avoided.

Acts safely – no danger of liver damage. Deprol does not produce liver damage, hypotension, psychotic reactions or changes in sexual function—frequently reported with other antidepressant drugs.

Bibliography *(13 clinical studies, 858 patients)*: **1.** Alexander, L. (35 patients): Chemotherapy of depression – Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. **2.** Bateman, J. C. and Carlton, H. N. (50 patients): Meprobamate and benactyzine hydrochloride (Deprol) as adjunctive therapy for patients with advanced cancer. Antibiotic Med. & Clin. Therapy 6:648, Nov. 1959. **3.** Beerman, H. M. (44 patients): The treatment of depression with meprobamate and benactyzine hydrochloride. Western Med. 1:10, March 1960. **4.** Bell, J. L., Tauber, H., Santy, A. and Pulito, F. (77 patients): Treatment of depressive states in office practice. Dis. Nerv. System 20:263, June 1959. **5.** Breitner, C. (31 patients): On mental depressions. Dis. Nerv. System 20:142, (Section Two), May 1959. **6.** Gardan, P. E. (50 patients): Deprol in the treatment of depression. Dis. Nerv. System 21:215, April 1960. **7.** Landman, M. E. (50 patients): Clinical trial of a new antidepressive agent. J. M. Soc. New Jersey. In press, 1960. **8.** McClure, C. W., Papas, P. N., Speare, G. S., Palmer, E., Slattery, J. J., Konefal, S. H., Henken, B. S., Wood, C. A. and Ceresia, G. B. (128 patients): Treatment of depression – New technics and therapy. Am. Pract. & Digest Treat. 10:1525, Sept. 1959. **9.** Pennington, V. M. (135 patients): Meprobamate-benactyzine (Deprol) in the treatment of chronic brain syndrome, schizophrenia and senility. J. Am. Geriatrics Soc. 7:656, Aug. 1959. **10.** Rickels, K. and Ewing, J. H. (35 patients): Deprol in depressive conditions. Dis. Nerv. System 20:364, (Section One), Aug. 1959. **11.** Ruchwarger, A. (87 patients): Use of Deprol (meprobamate combined with benactyzine hydrochloride) in the office treatment of depression. M. Ann. District of Columbia 28:438, Aug. 1959. **12.** Settel, E. (52 patients): Treatment of depression in the elderly with a meprobamate-benactyzine hydrochloride combination. Antibiotic Med. & Clin. Therapy 7:28, Jan. 1960. **13.** Splitter, S. R. (84 patients): Treatment of the anxious patient in general practice. J. Clin. & Exper. Psychopath. In press, April-June 1960.

Deprol®

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate. **Supplied:** Bottles of 50 light-pink, scored tablets. Write for literature and samples.

WALLACE LABORATORIES/*New Brunswick, N. J.*

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Obstetrical BREVETS

Toxemia of Pregnancy

Toxemia of pregnancy is rather an unusual disease. In spite of the fact that the etiology is unknown, the mortality has been reduced by knowledge about contributing factors. Even the morbid anatomy is unclear and yet the disease is considered as a preventable cause of maternal death. This preventability exists and yet toxemia accounts for 17.8 per cent of the maternal deaths in Michigan.

There were 111 deaths inclusively through 1950-1957 and of these patients, 106 had no, or poor, prenatal care. Of the 84, where weight records were recorded, 52 gained excessively and 14 were malnourished. This suggests that diet is an important factor. This is confirmed by the work of Burke and Kirkwood (Boston) who showed that pregnant women on good diets never developed toxemia; people on fair diets were toxic in 8 per cent of cases; people on poor diets became victims of toxemia in 44 per cent of cases. They admit that in Boston the poor diets were really deficient. Another less dramatic but significant report by Ebbs, Tisdale and Scott showed that 7.6 per cent of the people on poor diets developed toxemia; 3 per cent of the people on good diets were afflicted. The interesting part of their report refers to the success of supplements added to poor diets which reduced the incidence of toxemia almost as low as the good diets. Don't be confused by the percentage differences. This has largely to do with the dietary classification. Bear in mind only, that both reports show a marked reduction of toxemia in the presence of a good diet. We feel that low salt diets are important, but unfortunately we are not able to elicit this information from our records. I believe it is safe to say that good prenatal care would include limitation of sodium. Remember, that only 5 toxemia deaths are listed as receiving good prenatal care.

Primaparity occurred in 34 per cent of the 111 patients who expired. This figure is relatively insignificant except to show that toxemia is common with the first baby. Age and race likewise played an unevaluable role.

About half of the babies in this maternal mortality series were salvaged.

Eighty-one of the 111 patients developed eclampsia before death. Five of these were post partum eclampsia and 12 were eclampsia superimposed on pre-existing cardiovascular disease.

Toxemia deaths are preventable only by *careful* prenatal care. Observations of weight gains; limitation of salt intake; ready hospitalization—these factors properly executed prove successful. The cause of toxemia is unknown, but its prevention seems fairly clear. We wish to emphasize that the Michigan doctors are not responsible for all or, even probably a small part of the toxemia deaths. People do eat as they please, and often consult their physician late in pregnancy. We wish only to point up the factors which seem most important in the production of this preventable mortality factor. We also urge you as physicians to do what you can to urge better and earlier prenatal care in your community.

Maternal Deaths from Postpartum Hemorrhage

This category includes all deaths from blood loss following delivery except ruptured uterus which has been separately considered. There are cases of lacerations of the lower birth canal, afibrinogenemia, retained placenta and uterine atony but, because of incomplete or missing autopsies, or because of inadequate records, detailed classification is impossible.

During the years 1950 through 1957, there were sixty-nine Michigan State deaths classified as postpartum hemorrhage. These cases have been studied in as much detail as available facts permit.

Age and parity had no statistical significance. It is our positive impression that grand multipara are more often victims of severe uterine atony but that this tendency is compensated by hemorrhage frequently seen in a primipara following traumatic births or inadequate pelvic evaluation.

The outstanding related factors seem to be quality of prenatal care and weight gains. Only thirteen of the sixty-nine expired patients received good prenatal care. Half of the patients whose weights were recorded

(Continued on Page 1024)

When summertime chores bring on LOW BACK PAIN

Trancopal®

Brand of chlormezanone

relaxes skeletal muscle spasm— ends disability.

When any of a host of summer activities brings on low back pain associated with skeletal muscle spasm, your patient need not be disabled or even uncomfortable. The spasm can be relaxed with Trancopal, and relief of pain and disability will follow promptly.

Lichtman[1,2] used Trancopal to treat patients with low back pain, stiff neck, bursitis, rheumatoid arthritis, osteoarthritis, trauma, and postoperative muscle spasm. He noted that Trancopal produced satisfactory relief in 817 of 879 patients (excellent results in 268, good in 448 and fair in 101).

Gruenberg[3] prescribed Trancopal for 70 patients with low back pain and observed that it brought marked improvement to all. "In addition to relieving spasm and pain, with subsequent improvement in movement and function, Trancopal reduced restlessness and irritability in a number of patients."[3] In another series, Kearney[4] reported that Trancopal produced relief in 181 of 193 patients suffering from low back pain and other forms of musculoskeletal spasm.

Trancopal enables the anxious patient to work or play. According to Gruenberg, "In addition to relieving muscle spasm in a variety of musculoskeletal and neurologic conditions, Trancopal also exerts a marked tranquilizing action in anxiety and tension states."[3] Kearney[4] found "... that Trancopal is the most effective oral skeletal muscle relaxant and mild tranquilizer currently available."

Side effects are rare and mild. "Trancopal is exceptionally safe for clinical use."[3] In the 70 patients with low back pain treated by Gruenberg,[3] the only side effect noted was mild nausea which occurred in 2 patients. In Lichtman's group, "No patient discontinued chlormethazanone [Trancopal] because of intolerance."[1]

Supplied: Trancopal Caplets®
00 mg. (green colored, scored), bottles of 100.
100 mg. (peach colored, scored), bottles of 100.

ge: Adults, 200 or 100 mg. orally three or four
s daily. Relief of symptoms occurs in from
n to thirty minutes and lasts from four to six
s.

rences: 1. Lichtman, A. L.: *Kentucky Acad. Gen. J.* 4:28, Oct., 1958. *2.* Lichtman, A. L.: Scientific it, Internat. Coll. Surgeons, Miami Beach, Fla., Jan. 959. *3.* Gruenberg, Friedrich: *Current Therap. Res.* an., 1960. *4.* Kearney, R. D.: *Current Therap. Res.* April. 1960.

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Maternal Deaths from Postpartum Hemorrhage

(Continued from Page 1022)

gained excessively. Negro deaths occurred twice as frequently as might be expected from the number of negro births. We believe this association is more indicative of the quality of their prenatal care than of any racial tendency. All through the mortality study, good prenatal care reveals its importance and often the association is not completely understandable. However, here again, as in toxemia, heart disease and diabetes we see the emphatic need for good direction through pregnancy.

An interesting observation is the associated fetal wastage. Twenty-seven births from the sixty-nine fatal cases resulted in fetal mortality. Abruptions in labor, difficult instrumentation and poor pelvic evaluation contribute to both maternal hemorrhage and fetal death. We should add and emphasize that pitocin has also been a frequently associated factor.

Our mortality review offers several suggestions to reduce hemorrhage risk.

1. Urge and provide good prenatal care which should consist of hemoglobin determinations and weight observation along with the other standard guidance. The patient with a secondary anemia is a ready victim of hemorrhage.

2. A history of previous hemorrhage is very significant. There is a hemorrhagic diathesis among certain women.

3. Examine the cervix and vagina routinely after delivery and explore the fundus *carefully* whenever the third stage is abnormal, or whenever the second stage has been traumatic.

4. Never delay treatment of postpartum hemorrhage but rather try to be ahead of need with prevention. "Too little too late" is the history of hemorrhage deaths.

5. If blood banks are distant, have a walking blood donor available whenever hemorrhage can be anticipated.

We believe that nothing in obstetrics better exemplifies the artistry of the profession than the control of toxemia and the limitation of postpartum bleeding. Severe hemorrhage doesn't happen often, but once lost and beyond control it presents to the attendant the most frightening, frustrating experience of his life. Even one such experience is too much in a lifetime.

Children nowadays need hospital care less often than they did twenty years ago, largely because the rates for two common operations, tonsillectomies and appendectomies, have declined by about half.

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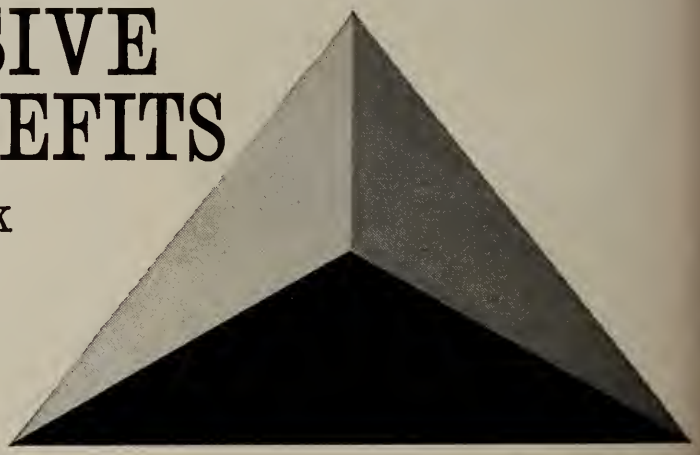

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Pathology Comment

Medicine lost a great pathologist on May 17, 1960, with the death of Osborne Allen Brines, Professor of Pathology at Wayne State University College of Medicine. Dr. Brines' achievements were manifold; for these he received wide recognition in the field of pathology. As President of the International Society of Clinical Pathologists Dr. Brines was preparing to leave for their June meeting in Madrid at the time of his death. Dr. Brines was also past president of the American Society of Clinical Pathologists.

The annual Ward Burdick Award of the American Society of Clinical Pathologists was presented to Dr. Brines in 1959, inscribed, "To the Fellow who has presented the most meritorious contributions to the science of Clinical Pathology." He was also the recipient of the annual Wayne University Alumni Award with a citation for distinguished services.

Perhaps Dr. Brines' most lasting contribution to pathology and the field of medicine are the fifty-one residents and the even larger number of medical technologists who received their formal training under his guidance. They indeed represent a most noteworthy accomplishment and are an assurance that his wisdom and experience will long survive his own passing. His devotion to the field of medical technology is epitomized by the last of his thirty-nine significant contributions to the medical literature, for this article, "The Medical Technologist" was written by him to be used anonymously in the series, "Pathology Comment" sponsored by the Michigan Pathological Society in THE JOURNAL of the Michigan State Medical Society. Dr. Brines worked tirelessly to improve the training and working conditions of medical technologists and to gain them the recognition he knew they so strongly deserved. His article is reproduced below.

E. M. KNIGHTS, JR., M.D.

The Medical Technologist

Written by Osborne A. Brines, M.D., Professor of Pathology at Wayne State University College of Medicine, who died suddenly on May 17. This was probably his last contribution in a long and distinguished career in Pathology.

One of the least known, and yet one of the most important of the paramedical professions, is medical technology. Having developed from a chaotic state during the last quarter of a century, these well-trained and educated people, mostly women, deserve to be better recognized and more thoroughly appreciated. They play an important behind-the-scenes role in the establishment of clinical diagnoses and in the control of treatment.

Through a progression of increased educational requirements, the registered medical technologist of today is usually a college graduate. In the near future, four years of education and training will be required, the last twelve months being spent in a hospital school of medical technology approved by the AMA. A college degree is usually obtainable upon completion. Some hospital schools require college graduation for admission and one hospital in Michigan offers an eighteen-month training curriculum leading to a master's degree.

In Michigan, there are thirty-five AMA-approved schools of medical technology and about twenty colleges and universities which offer curricula in medical technology.

Following the completion of such a training program, the student is eligible for examination by the Board of Registry of Medical Technologists operated under the auspices of the American Society of Clinical Pathologists. Upon passing this examination the medical technologist becomes registered and is entitled to the designation "MT(ASCP)."

Unfortunately, there is a universal shortage of medical technologists. This is in part due to the profession being virtually unknown until the last few years and also to the difficult science courses in the college curriculum which are both an obstacle and a deterrent.

Recruitment of medical technologists has been organized nationally and is operative locally. Much still depends on personal contact. Physicians are frequently asked to advise young people in the selection of a career. Medical technology is a fine career for the young person who likes, and is proficient in, mathematics and chemistry.

Educational standards for these people must be maintained at a high level. New laboratory procedures are constantly added to the already long list. Many of the new tests are exceedingly complex and require a high level of basic scientific knowledge and skill.

It is not surprising that imitators have intruded into a field where the demand far exceeds the supply. The substandard workers have meager professional attainments; they need have no college education; they have taken short, inadequate, but often expensive courses in unapproved schools; imitation registration is provided by an unapproved registry. All physicians should be concerned about the kind of medical technologist in his hospital or his office. Is she entitled to the initials "MT(ASCP)" after her name? This title warrants a high degree of confidence and is nationally recognized in medical and hospital spheres.

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1. Projection from Vital Statistics, U.S. Government Dept. HEW, Vol. 48, No. 14, 1958, p. 398.
2. Modell, W.: Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347.

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EDITORIAL COMMENT

Help Wanted

Oakland County Medical Society Bulletin, May, 1960

For those of us who went to medical school in the forties, the harrowing experience of long-odds competition for a place in the freshman class will never be forgotten. In those days, three or four applicants were hotly contesting each medical school appointment. A high scholastic achievement in the premedical years was of course *sine qua non*, but beyond that the applicant's background, contacts, aptitude during interviews plus the blessing of Lady Luck were all needed to make the grade.

It seems that while we have been so busy practicing these ten or so years, times have changed. We learn that the best prepared college students are going into fields other than medicine, and that even with candidates of lesser academic standing, the number of applicants for each medical school berth has dwindled considerably. (To be exact, there were 1.86 applicants for each opening in 1958-59.)

While the number of applicants to medical schools has actually been diminishing, the need for new doctors merely to preserve the long-standing physician-population ratio of approximately 1:760 is rapidly increasing. Moreover, with increasing numbers of physicians going into fields where they do not participate directly in patient-care, even greater numbers may be needed than would be indicated by an extension of the traditional ratio. Then, too, if we ever get socialized medicine, we estimate that at least three government doctors will be required to do the work of each privately practicing physician.

It isn't hard to guess why bright youngsters have been turning away from medicine. Other scientific fields now offer as much or more glamor and opportunity for achievement and recognition. Few require as much time and expense in preparation. Then, the prospect of long, irregular hours, night calls, emotional and mental stress, plus the increasing administrative complexities of modern practice discourage all but the most determined. (However, those hardy souls who see it through agree that it is all worth while in the end; I don't know even one doctor who would consider quitting the practice of medicine and turning to something else.)

What's to be done about it? One reads of plans to increase medical school scholarships, of the Fogarty Bill now before the House of Representatives to subsidize the medical student with federal funds, of expansion of medical education facilities, and of accelerated training programs. All of these may be of help but not unless the basic problem of motivation is solved.

The time has come on a here-at-home, County Medical Society basis to get out and tell the opportunities and satisfactions of the medical career where it will do the most good—to the students in our high schools. Tell them that one doesn't have to be a genius to get through medical school, that any reasonably bright youngster of college caliber should be successful. Tell them that modern society can always be expected to accord a better than average social and financial status to its medical advisers. Tell them of the personal satisfaction of pulling a patient through a critical illness. Whenever the opportunity presents itself to recruit young Aesculapians, let's get out and do it in person!

WALTER J. ZIMMERMAN, M.D., *President,*
Oakland County Medical Society

Blue Shield and the Longer View

Like a somewhat wayward child, Blue Shield often plays the role of favorite whipping boy for the doctors who created it. Wherever several physicians are gathered together—in staff room, committee meeting or on the second tee—someone is certain to take out after the local Blue Shield Plan.

When the definitive history of prepayment is written, perhaps one may trace a falling rate of divorce among American physicians who have worked out so many of their frustrations, not on their wives, but on their Blue Shield Plans.

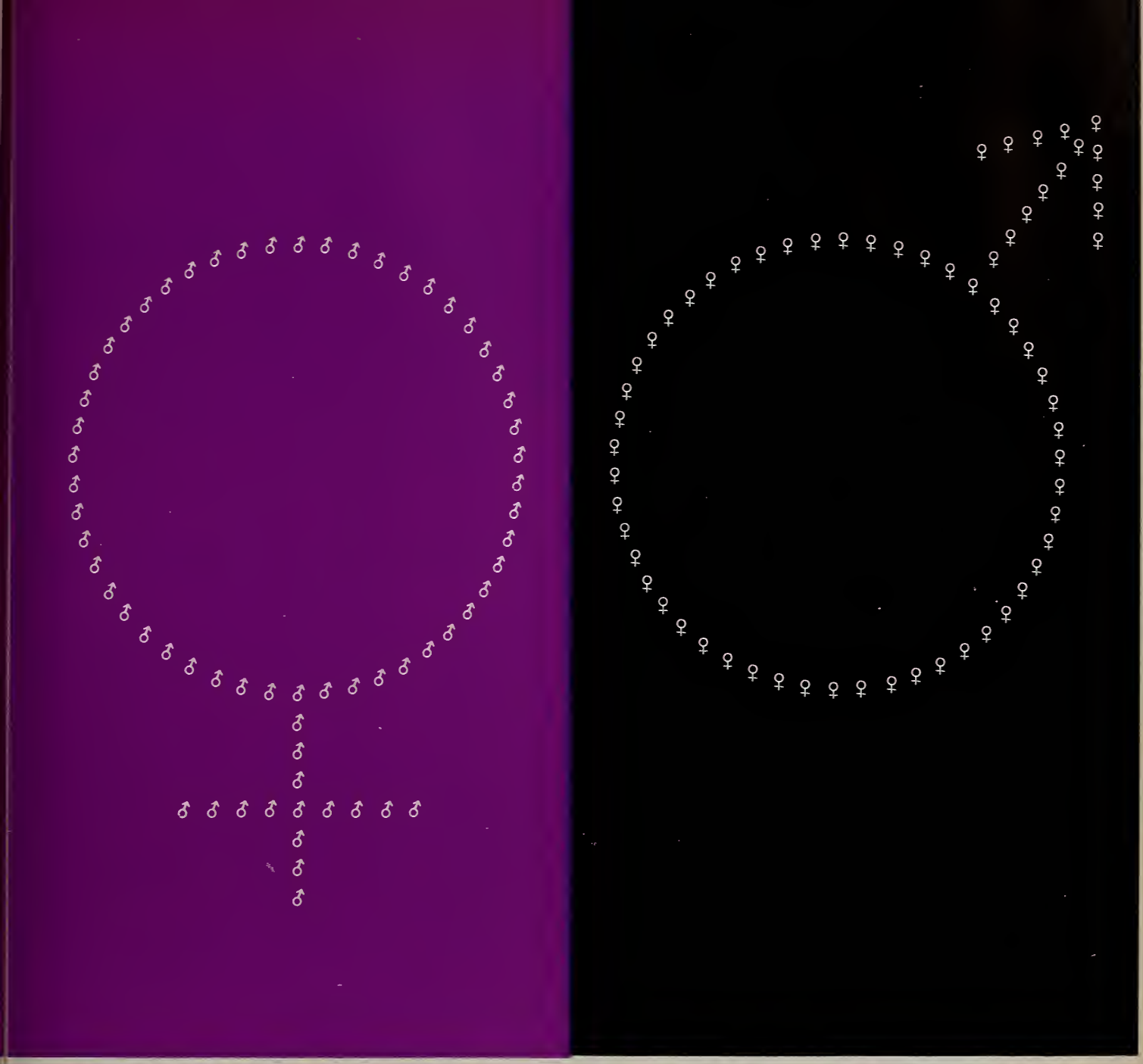
Some Blue Shield administrators confess to a wry satisfaction in all this—recognizing that a parent is always fussier with his own offspring than with a child for whom he has no emotional affinity.

Blue Shield is a vast community umbrella designed to ward off the rain of medical adversity which falleth alike upon the just and the unjust. It serves the need of the average man as best it may, but it sometimes falls a little short of the special needs or wishes of the individual patient and his doctor.

In these perilous times, when the Forand philosophy seems to have so thoroughly infected the politicians of both parties, American medicine has reasons more apparent than ever before to honor those medical pioneers who built Blue Shield, and to support the civic and professional leaders who today are working so hard to make Blue Shield an ever more effective instrument.

None can doubt that without the reality of a strong and growing Blue Shield movement during the 1950's,

(Continued on Page 1030)



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*Marmell, M., and Prigot, A.: Tetracycline phosphate complex in the treatment of acute gonococcal urethritis in men. Antibiotic Med. & Clin. Ther. 6:108 (Feb.) 1959.

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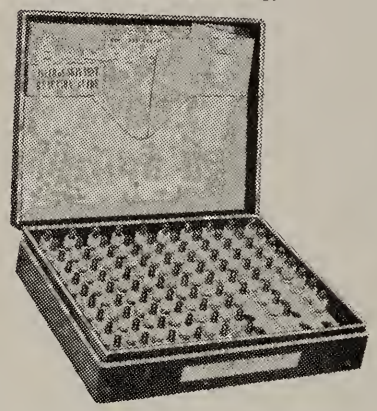

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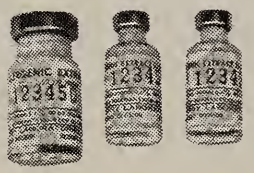

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Blue Shield and the Longer View

(Continued from Page 1028)

America would long since have had universal compulsory health insurance. And few today would dispute the proposition that if American medicine escapes the thralldom of state medicine during the 60's, it will have the voluntary prepayment movement—chiefly Blue Shield—to thank for its good fortune.

Let's all keep a closer eye on Blue Shield—not merely to discern the motes in its eye—but to encourage it to do the best job it can do for us and for the American people.

New Monograph Series Published by AHA

(Continued from Page 1018)

March issues of *Circulation*, monthly journal of the American Heart Association. These were edited by Herrman L. Blumgart, M.D., Editor-in-Chief of *Circulation*.

Included are review articles by leading cardiologists on "Starling and the Concept of Heart Failure," "Hemodynamic Aspects of Congestive Heart Failure," "Metabolism of the Heart in Failure," "Kidney in Congestive Heart Failure," "Unusual Causes of Heart Failure," "Clinical Management of Congestive Heart Failure," "Correction of Hyponatremia in Congestive Heart Failure," "Clinical Consideration of Cor Pulmonale," "Pediatric Aspects of Congestive Heart Failure," "Congestive Phenomena Occurring in Pregnant Women with Heart Disease," and "Rehabilitation in Congestive Heart Failure."

Copies may be obtained at $2 from Distribution Department, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

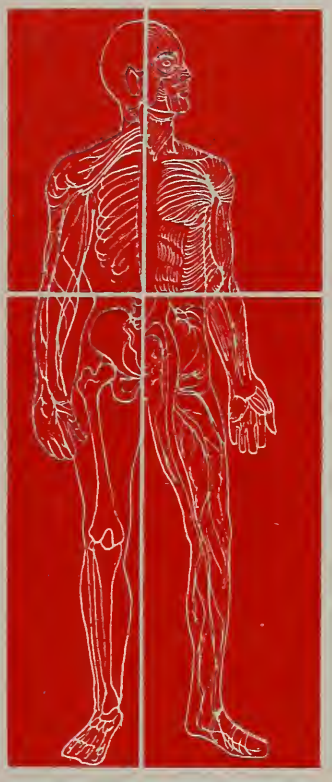
Editorial Appointments

Herrman L. Blumgart, M.D., Harvard Medical School, has been reappointed for a five-year term as editor-in-chief of *Circulation*, monthly professional journal of the American Heart Association.

At the same time, the Association announced that E. Cowles Andrus, M.D., Associate Professor of Medicine, Johns Hopkins University School of Medicine and a former President of the American Heart Association, has been appointed as Editor, effective next January, of *Modern Concepts of Cardiovascular Disease*, the Association's monthly publication for cardiologists and other physicians.

Origins of the Healing Art

Irving I. Edgar, M.A., M.D., F.A.C.P.
Detroit, Michigan



IF WE CONSIDER medicine in its broadest aspects, we shall see that it is as old as man himself. Up and up, through millions of years, man has evolved to what he is today. And on through millions of years medicine has evolved to what it is today. Medicine is inherent, instinctive, ingrained in the very fibre of all living things. Medicine is as old as life itself. It is the primal instinct of all living things for self-preservation. It is the love and sympathy of parent for child, brother for brother, and man for man. This is the great driving force of the universe to which all other forces are subordinate. This affects the lowly bacterium and the higher reptile; the complex mammal and liberated intelligent man.

Where shall we seek the beginnings of medicine? Seek it in the beginnings of life. Seek it in the unicellular organism. Seek it in the humble ameba or paramecium. For what are we but a complex aggregation of millions upon millions of protoplasmic entities, each independent and each imbued with the indomitable will to live and through its offspring to perpetuate its own particular speck of protoplasm eternally and forever.

I can stretch my imagination to conceive of the ameba as having a medicine of its own, crude but fundamental. The ameba must have had the elements of nature to contend against, enemies on all sides, and even the toxic excretions from its own body. It must have received injuries, ingested poisons, and had various other obstacles to its existence. It must have projected its pseudopodia and sought other climates, as it were. If injured, it must have sought its place of rest. If it had ingested poisonous substances, it must have made vacuoles for the greater excretion of these poisonous substances. If a part of it were mutilated beyond recovery that part would die and be cast off and the rest would keep on living, just as a line of demarcation forms in a gangrenous leg. The ameba and the higher multicellular organisms sought the rays of the sun, sought a suitable environment and reproduced their own kind.

Let us pass countless ages. Let us ascend the unending scale of evolution. Animals are open to injuries, bites, poisons, infections. Animals lick their wounds, remove foreign bodies with their teeth, remove parasites, rest when they are sick and restrict their diet, drink enormous quantities of water in febrile conditions, bathe in the sun

and seek out certain plants as therapeutic measures. Observations in this matter are too numerous to mention here. The plants, Triticum Caninum, Cynosurus Cristatus, and Agrostic Canina, as the very names imply, are eagerly sought and ingested by the dog for emesis and purgation. Likewise cats seek the plants Valeriana Officinalis and Nepta Catria, which is the ordinary catmint, for similar purposes. Camels, deer, buffaloes, horses and other small animals will walk long distances to find salt in any form, for this acts on them as an aperient. The Indian Mongoose uses the antidote to be found in the Mimosa Octandra when bitten by a poisonous snake. The toad stung by a spider seeks the plant Plantago Major as a remedy. Swallows use the juice of Celandine for sore eyes. Tortoises use a species of Origanum for snake bite. Bears use the leaves of Arum for stomach disorders. Stags use the leaves of the species Dictamnus for wounds. The Chimpanzee, soko and other anthropoid apes staunch bleeding wounds by leaves, turf or grass stuffed into them. Animals have also been known to apply dressings to wounds and to secure broken limbs by ligature. Thus it has been reported that a snipe which had been killed by a hunter had a large dressing of down applied to a wound in the chest, the dressing being fixed to the wound by coagulated blood. Another snipe had a mass of interwoven feathers strapped to a site of fracture of a limb, a form of splinting being obtained thereby. Another record reports the case of a snipe with a broken limb, which when subsequently found, appeared to have forced the fragments into a parallel position and to have secured them in such position by a strong band of feathers and moss mingled. The striking thing, however, was the presence of a ligature of a kind of flat-leafed grass wound around the limb in a spiral form and fixed by means of a sort of glue. And, thus, on and on. It has been observed that the Hippopotamus often practices phlebotomy by cutting the vein on a reed, when it has become plethoric. These seemingly intelligent actions of the lower animals undoubtedly passed into the making of man and contributed to the foundation of medicine.

THE AUTHOR
Irving I. Edgar, M.D.

Man. The enigma. Man. Of the broad forehead and heavy brain. Man. Who egotistically makes himself the center of the universe, not so long ago in the vastness of time, grovelled in the dust of the same animal instincts. Paleolithic and Neolithic man represented only a species of animal, no better than the ape. Surrounded by an adverse and brutal nature—winds, storms, earthquakes, the rays of the sun, the cold of the winter, wild animals, parasites, infections—all these, together with the continual struggles and feuds among his own kind—man must have been extremely uncomfortable and short-lived. There must have been skin diseases, fevers, parasitic infections, gastrointestinal disorders, wounds, abscesses, fractures and snake bites. And how did man meet these emergencies that threatened to destroy him? At first, he met them in precisely the same way as the animal—that is, instinctively. When he received a burn, he instinctively blew on it or rushed to immerse the part in some water or mud. Perceiving the apparent coolness of the leaf covered with dew, he began to apply leaves to wounds, burns and heated swellings. If his leg were fractured, pain forced him to rest. Receiving a contusion, he reflexly massaged the part and pressed down upon it just as we involuntarily do today. And this is the beginning of massage as a therapeutic measure. According to Captain Cook in his narrative of the people of New Holland and other parts of Oceania, massage, "toogi" (which is a process of light percussion) and "Mita, Tota" (kneading and friction) are regularly resorted to in fatigue of muscles by the natives. African medicine men use these processes for the relief of injuries to joints, fractures and pain of the muscles. Man removed foreign bodies and parasites. He exposed himself to the rays of the sun, bathed in natural waters, possibly applied snow and ice to inflammatory areas and to the head in fevers—drank large quantities of water. Reversely he must have sought heat when in a chill or when having cold extremities. In addition, he undoubtedly used plants for therapeutic purposes. In all these measures man was in no way different from the animal.

But man is man. And man was made for a higher destiny. Man became something more than an instinctive animal. He began to have thoughts. He began to make simple, undirected, unorganized, unsystematic observations. And he profited through accidental discoveries. Cause and effect assumed a relationship in the haze of his mind. Soon he began to make purposeful, organized observations. And finally in our modern age, he began his brilliant career in scientific experimentation. These things came on gradually,

slowly, laboriously through countless years; and in the mind of man they assumed their true evaluation.

Let us suppose that primitive man was visited with small pox or leprosy or any other spectacular disease. He needed but to use his eyes to see, his ears to hear, and his hands to feel. He noted the external aspects of the condition, a hundred, a thousand, a million times. He noted the progress of the disease, whether death resulted or recovery. He noted that those in contact with the disease also came down with the same condition. These things forcefully and indelibly abutted themselves on his memory. The wise man, the elder, handed them down from generation to generation. Thus, man began to recognize the most apparent diseases; to know their outcome; and to suspicion their contagiousness. The warning of the elder to his tribe might have been: "Beware of the leper and flee from him! He that becomes covered with black raised pox shall die and you shall not go near him. Eat not a full diet when you are sick." etc., etc. True, man did not know the causes of disease or he may have attributed them to supernatural agencies. But the fact remains that long before man emerged into a civilized state, he recognized disease, symptoms, progress, prognosis; and he even attempted therapeutics. For man could not help noticing that in disease and particularly in fevers, those who drank much water did better than those who drank small quantities of water or none at all; that those who kept in the open air and in the sun recovered more easily than those who were confined in stuffy places, that those who took to bed immediately and rested throughout their disease had a better prognosis than those who continued on their feet. And thus ad infinitum. Today on the charts of the most modern hospitals these orders predominate, "complete rest", "soft diet", "force fluids", "hydrotherapy", "s. s. enema".

Through accident, let us say, a plethoric, hypertensioned primitive man with headache, dizziness and a sense of heaviness in the body, irritated his nose and caused bleeding or accidently produced hemorrhage elsewhere in the body. The relief associated with such bleeding must have impressed itself on his mind. This happening again and again, he finally produced bleeding artificially in order to be relieved from his condition. In this can be recognized the origin of bloodletting and venesection. When a wound is obtained and there is severence of a blood vessel with much active bleeding, the natural tendency of man is to apply pressure by the hand or with the mouth. From this it is only a step further to use of a strip of fibre or a piece of animal skin as a tourniquet for the arrest of the bleeding. Suppose that a small tumor were present on the wrist of a Neolithic man—a ganglion. If accidentally something heavy should fall down on this ganglion or he should knock his hand against a resisting object, that ganglion would be removed. Hence the treatment for removal of ganglion.

Primitive man had an abscess; and experience showed him that the pain connected with it would be relieved when that abscess came to a softened center and opened. Accidentally perhaps, or purposely, such an abscess would be opened before it could take place naturally. Hence, incision for abscess.

Surgery proper, however, did not begin until man made his first household utensils out of stone and wood and bronze. The splinting of fractures was undoubtedly suggested by the splinting of a cracked spear or other weapon. An Indian breaking a limb in the depths of the forest will have straight branches of uniform size obtained. He will have these lined with down-like moss, or with fine twigs interlaid with leaves, or with curled up leaves of the evergreen, cedar or hemlock. By means of withes of willow or osier or young birch or the bark of the poplar or basswood or with wild hay or reeds, the affected limb will be splinted and supported. These Indians also cut into abscesses with pointed flint. They amputate limbs with their hunting knives, checking hemorrhage with heated stones. Some of the Australian tribes initiate their youths by ceremonial operations on the urethra with flint knives. Other tribes operate on their females to prevent conception, an ovary probably being removed. Sir John Lubbock in his book *Prehistoric Times* records an incident among the Society Islanders of opening of the skull, removing a portion of injured brain and inserting a piece of pig's brain instead. Indeed, archaeology has dug up for us numerous trepanned skulls together with burrs out of stone and various other instruments belonging undoubtedly, to prehistoric man in different parts of the world, pointing toward the practice of decompression by primitive men. And this is still being done today. The Aymaras of Bolivia and the Quinchuas of Peru, as reported by Ella in the *Medical Times* of 1874 still perform this operation for epilepsy, convulsions and persistent headache. Likewise, the South Sea Islanders perform trepanning as well as ovariotomy. Furthermore, the primitive men of today dress wounds with fresh leaves, moss, ashes or natural balsams. There is cupping with the horns of animals, venesection and scarification. It is reported that the Bafiotes on the Coast of South Guinea practice cupping by making incisions in the skin, placing horns over the wounds and then sucking

out the air, thus withdrawing the blood by these means. There is removal of foreign bodies, opening of abscesses and suction in the treatment of wounds. There is drainage procured by means of bamboo. There is tight bandaging to promote union; and there is even stitching. Ulcers and poison wounds are cauterized by hot ashes, heated blades and irons. In addition, various operations are performed, circumcision, castration and Caeserean section. An eye witness reports a case of Caeserean section in Central Africa. First of all, the patient was semi-anaesthetized with banana wine. The abdominal wall and uterus were both incised at one stroke of the knife. The incision in the uterus was enlarged. Actual cautery was applied to check hemorrhage. The child was removed and the placenta was detached. While the abdominal parietes were sutured together with seven light sutures by means of polished iron needles and threads of bark, no sutures were placed in the uterus. The wound was dressed with a paste prepared from various roots. The woman was placed on her abdomen to favor drainage. On the eleventh day the wound was healed and the woman apparently well.

The ancient Hindus developed surgery to a high degree. One of the sacred books of the Upavedas treats exclusively of surgery. Surgery is of eight kinds: (1) *chedhana*, cutting or excision, (2) *lekhana*, scarification and inoculation, (3) *vyadhana*, puncturing, (4) *eshyan*, probing or sounding, (5) *ahurya*, extraction of solid bodies, (6) *visravana*, extracting fluids, by leeches or bleeding, (7) *sevana*, suturing, (8) *bhedand*, division or excision. They developed six types of instruments: (1) The swastikas, twenty-four in number were used as pincers and forceps; (2) The sandansas were tongs used for removing extraneous substances from soft parts; (3) The falayantras were used for removing foreign bodies from the ears, nose, etc. (4) The nadiyantras, twenty kinds, were used as catheters, syringes, etc. (5) The salakas, twenty-eight kinds, were used as sounds and rods. (6) The upayantras were used as dressings, cloth, leather, twine, etc.

The ancient Hindus performed many operations. They extracted stone from the bladder. They performed all manner of amputations. They were skilled in abdominal uterine operations. They performed herniotomies, hemorrhoidectomies, fistulectomies. They were specialists in Rhinoplasty or operations for restoring lost ears and noses. They even invented an operation for neuralgia similar to the modern operation of dividing the fifth nerve above the eyebrow. Thus was surgery.

As to a materia medica, researches have shown that the primitive men all over the world today are familiar with narcotics, emetics, purgatives, aphrodisiacs, aromatics, vesicants. They used fat blubber, organs, blood, urine, bile, powdered bone, and teeth and feces. They have inhalations, instillations, nasal douches, enunctions, etc. The Indians of South America chewed the leaves of Erythroxalon Coca for thousands of years before civilized man discovered it and its uses. The slaves of the South foiled their masters by aborting their young. Investigation proved that they knew the use of Ergot. Cinchona was in use in Peru before Spain ever dreamed of the conquest of a new world. Julap was used by the natives of Mexico and is named from the city, Xalapa. Guaiacum comes to us from the West India Islands and the northern coasts of South America. Logwood, an astringent used in diarrhea, was known to the natives of Central America and India. Copaiba, used in genitourinary diseases was first used by the savages of the West Indies and certain parts of tropical America. Likewise male fern is an old remedy for tapeworm. The Negroes of South America use wormseed (Chenopodium Anthelminticum) for lumbricoid worms. The Abyssinians have found in Kousso (Brayera Anthelminthica) an excellent vermifuge for tapeworm. And this has been introduced into the British Pharmacopaeia. Instinctively, it seems, savages all over the world dipped the tips of their arrows in the most fatal poisons—curare, oubain, veratrin and boundou.

The North American Indians used lobelia for coughs; elder, wild cherry and sumac for colds and quinsy; arbutus for rheumatism; wild sage tea, golden seal, flowering dogwood and prickly ash berries for fevers. They were familiar with euphorbia, ginger and gensing, and used these for digestive disorders. They used sassafras for wounds and felons; inhalations of pennyroyal for headaches; sarsaparilla as a blood purifier. In 1535, the Iroquois Indians around Quebec treated scurvy in Jacque's Cartier's crew with an infusion of the bark and leaves of hemlock spruce.

Records of the plant lore of rural England disclose the fact that camomile, dandelion and sage were used for laxatives; valerian for nervous disorders; primrose root and marjoram for headaches. They were familiar with agrimony and parsley, and used these in jaundice. The meadow-saffron (colchicum) was in use for gout; male fern and peach leaves for worms; fennel, eyebright and rue for eye disorders; tansy as a vermifuge and abortifacient. Marshmallow and horehound were well known for their use in coughs and colds. In addition, there is hyocyamus,

hemlock, nightshade, asphodel, leopards bane (aconitel, etc.). For intermittent and remittent fevers, it is definitely recorded, that the Indians prescribed catharcis or emesis, followed by a vapor bath, a cold plunge, and a dose of willow bark decoction. For rheumatism there was cimifuga and a vapor bath. The Indians, Japanese, Malays and East Indians practiced massage. Long before civilized man dreamed of immunity, there were inoculations against snake bites and poisonous animals. Thus scorpion oil and the fat of poisonous animals were widely used. In addition, the Hindus, Persians and Chinese practiced inoculations for smallpox. As anaesthetics, there was opium, canabis Indica, Atropa mandragora, hyoscyamus, stramonium, coca, and hemlock.

Prehistoric man, then, had developed an extensive form of Medicine and a full Materia Medica—all of which, as has been pointed out, was the result of instinct, accident, empiricism and non-purposive observation. The difference between modern scientific medicine and primitive medicine is simply this: that modern scientific Medicine has taken for its use organized observation, and most important of all *directed scientific experimentation*. These things by the very logic of the situation followed each other: First, instinct; then, experience; then, chance and undirected observation; then, organized observation, and finally experimentation. Had primitive man been able to allow these forces to take their true course, Medicine might have been at a much greater height than it is today. Experimentation would have come into being ages ago. As it was, another potent force entered into the situation, a force which is an instinct in itself, a force which stunted the mind of man and kept him ignorant. This force, the belief in supernatural agencies, plunged mankind into an abyss of darkness for untold centuries.

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Fibrolysin

This blood clot-dissolving agent, was the subject of a two-day conference attended by leading investigators from Canada and the United States last May. Meeting at the Shoreham Hotel, Washington, D. C., the investigators exchanged viewpoints and discussed their experiences with this new drug.

Dramatic results with Actase,® under which name fibrinolysin is available to physicians, were reported in patients treated for venous or arterial clots. George C. Hajjar, M.D., of Georgetown University and Kenneth M. Moser, M.D., Naval Medical Center, discussed the advantages of this drug in clotting disorders of the legs, as compared with former treatment.

In dissolving these clots which incapacitate the patient and are potentially fatal, fibrinolysin was said to contribute markedly to the more rapid and favorable outcome. Newer developments in the manufacture of the drug have virtually eliminated the hitherto undesirable side effect of elevated temperature, according to Loren F. Parmley, M.D., of Letterman Army Hospital, San Francisco.

In addition to presentations of physiological mechanisms and appraisal of its therapeutic status, the discussants reviewed clinical studies with fibrinolysin in other areas of medicine. The treatment of strokes, heart attacks and some of the respiratory diseases of newborn with fibrinolysin, as well as the application of this drug to surgical procedures, were also considered. Albert L. Sheffer, M.D., Paul Nemir, M.D., and Samuel Lisker, M.D., of the University of Pennsylvania Graduate School of Medicine presented a paper on "Three Years Experience with Fibrinolysin."

Glaucoma Detection in Ottawa County

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OF THE CHRONIC DISEASES, glaucoma presents a particular challenge to the medical profession. It is a disease of serious consequence, accounting for 14 per cent of all blindness. It has a high prevalence, primarily in the form of chronic simple glaucoma, occurring in one person out of fifty over the age of forty. However, the prevalence is masked by the usually insidious progression of the disease, symptoms frequently not evident until late in the course of the disease.

Early and adequate treatment will prevent blindness in most cases. Hence, it prevails upon the medical profession to improve case finding in those stages where loss of vision can be prevented or minimized.

Glaucoma is characterized by an elevated intraocular pressure. Detection involves the use of the Schiotz tonometer which when placed on the anesthetized cornea of the reclining patient measures intraocular pressure. A pressure of 26 mm. of mercury or higher is felt to be abnormal and indicates the need for a complete diagnostic eye examination.

Ocular tonometry, being a relatively simple procedure, can be carried out in any practicing physician's office. It can also be readily used in community detection programs as have been carried out in several states.[1] This paper will describe the first such program attempted in Michigan, conducted in Ottawa County on May 26, 27, 28, 1959 under the sponsorship of the Ottawa County Medical Society, the Ottawa County Health Department, the Michigan Department of Health and the Holland Lions Club.

Operation

After approval of a community detection program by the various interested groups, a glaucoma education program was developed utilizing pamphlets, posters and local communications resources. Adults over forty were invited to attend evening detection clinics for a tonometric examination.

Under the supervision of a local ophthalmologist, interested physicians in the community had been trained in the use of the Schiotz tonometer and, along with him, did the testing. Pontocaine 0.5 per cent or ophthaine 0.5 per cent were used as local anesthetic. Persons with red or infected eyes were not examined. Tonometer foot plates were cleaned between examinations with 70 per cent alcohol. All persons who had a reading of 26 mm. of mercury or higher were re-examined by one of the two ophthalmologists who were present at all times. Those whose pressure was less than 26 mm. of mercury were informed of the results and were given a mimeographed sheet reminding them of the advisability of a periodic eye examination. Those who, on second examination, had an elevated pressure were advised to obtain a complete medical eye examination and were given a list of all the ophthalmologists practicing in the area. Follow-up of referred cases was made by public health nurses with the Lions Club assuring funds where costs might be a deterrent to an eye examination.

Results

Public response was enthusiastic with more persons appearing for examination than could be handled. A total of 1,679 people were screened of whom 106 were rescreened. In the group of 106 rescreened, there were thirty-four persons with readings of 26 mm. Hg. or over, all of whom had no previous history of glaucoma.* A breakdown of age and sex distribution is presented in Table I.

SUSPECT RATES

Female	2.0%
Male	2.0%
Total	2.0%
Under age 60	1.0%
Over age 60	4.0%

As of this writing, not all the suspects have had a follow-up eye examination. However, the following information is available:

SUMMARY OF FOLLOW-UP

Total diagnoses of glaucoma	20
Early or borderline glaucoma	10
Newly diagnosed glaucoma case rate	1.2%
Negative	7
Unable to locate	5
Return in six months for re-examination	2

*With the exception of one individual who had known glaucoma in one eye, was not currently under any treatment and was found to have elevated pressures in both eyes.

AGE SPECIFIC CASE FINDINGS

35-39	0
40-44	0
45-49	2
50-54	3
55-59	0
60-64	5
65-69	3
70-74	4
75 +	3

Thus there were twenty new cases of glaucoma found, all under treatment now. In addition, one of these individuals was reported to have a probable choroidal tumor. Seven of the thirty-four were found to be free of glaucoma; of the seven on whom follow-up is not complete, two are to return for examination, and five have been lost to follow-up.

may cause an initial high reading, the number of suspects was markedly reduced by rescreening. Rescreening should not be necessary once the examining physician is thoroughly familiar with the technique. It should be clear that the newly diagnosed glaucoma case rate of 1.2 per cent does not necessarily represent the prevalence of glaucoma in this community since previously known cases did not come in for testing.

Attention is called to the varying suspect rate in the age breakdown. The overall rate is 2.0 per cent, but the rate for those under sixty is 1.0 per cent compared with 4.0 per cent for those over sixty. This certainly points to the need for particular attention to the older age groups. There is no marked sex difference.

TABLE I. AGE AND SEX DISTRIBUTION

Age Group	Female			Male			Total Screened	Total Positive	Positive Rate
	Initially Negative	Negative on Rescreening	Positive	Initially Negative	Negative on Rescreening	Positive			
35-39	4	—	1	1	1	—	7	1	
40-44	165	9	—	119	5	1	299	1	0.3%
45-49	169	12	4	130	11	—	326	4	1.2%
50-54	137	13	2	86	7	1	246	3	1.2%
55-59	123	4	2	83	2	—	214	2	0.9%
60-64	118	13	5	71	7	2	216	7	3.2%
65-69	115	6	4	79	3	1	208	5	2.4%
70-74	41	4	2	38	3	3	91	5	5.5%
75+	24	3	—	25	3	6	61	6	9.8%
Not stated	7	—	—	4	—	—	11	—	
Totals	903	64	20	636	42	14	1679	34	2.0%

One of the problems in doing tonometry is the possibility of incurring corneal abrasions. In this program, there were thirteen abrasions reported presenting as a painful red eye once the anesthesia had worn off. Diagnosis was made with fluorescein and slit lamp examination. All were treated by the attending eye specialist. None of these abrasions were serious and generally symptoms were gone in twenty-four hours.

Discussion

In reviewing previously reported glaucoma detection programs one finds suspect and proven case rates vary considerably depending on tests performed, criteria established, age and makeup of population and thoroughness of follow up procedures. Thus, suspect rates range from 2.6 per cent (University of California) to 25.8 per cent (Memphis) and proven case rates from 0.7 per cent (Levatin, et al) to 5.5 per cent (Memphis).[1,2,3]

Our own suspect rate falls below the lowest reported. In view of differences in nature of these programs, it would seem imprudent to attempt to explain these differences in results. It does seem worth pointing out the effects of rescreening in this program. Since apprehension, poor positioning and errors in technique

The problem of corneal abrasions is a disturbing one. Admittedly, these are not of a serious nature but they are extremely painful and disconcerting to persons who voluntarily submit to an eye examination. It is unusual that abrasions are reported as a problem although Horsley, et al[2] reported seventeen corneal abrasions out of 1,210 tested. It does not seem likely that occasional abrasions can be entirely eliminated but the problem should be minimized by adequate experience in techniques of examination and cautioning patients not to rub their eyes until the anesthetic has worn off. Immediate and sympathetic treatment with appropriate medication, coupled with reassurances about the benign and temporary nature of the condition, would seem to be the best way to meet this complication when it does arise. Against the risks, one must weigh the amount of blindness and disability prevented.

A brief comment on the community screening approach to the detection of glaucoma is indicated. An ultimate goal among workers interested in glaucoma is for the practicing physician to do ocular tonometry on adults over forty as an office routine. It is hoped that programs such as this will arouse the interest and action of physicians to achieve this goal in addition to

promoting public awareness of the problem and helping to fill the detection gap which now exists.

Summary

1. A description of a glaucoma detection program is presented.

2. In all, 1,679 adults were tested with the Schiotz tonometer. Of the thirty-four glaucoma suspects identified, twenty have proven cases of previously unsuspected glaucoma and seven were free of glaucoma. Follow-up on the seven others is incomplete.

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Warns Against Misuse of Hypnosis

Televised hypnosis demonstrations can trigger "serious emotional reactions," the American Academy of General Practice warned. The Academy's Commission on Public Policy added that hypnosis, like dynamite, is useful when properly employed, dangerous in the hands of amateurs.

Paul Read, M.D., Omaha, Neb., chairman of the commission, said that closed-circuit studies, conducted by the British Broadcasting Corporation, have shown that viewers thousands of miles away can be hypnotized while watching TV demonstrations. The victims may later require corrective psychotherapy.

The Academy urged that medical associations and national television networks establish "ground rules" to eliminate television trance inductions.

In addition, the commission recommended that hypnosis not be used for "entertainment purposes" and that it not be mentioned or regarded as the answer to common emotional problems.

Dr. Read pointed out that hypnosis must be considered "a psychiatric tool" and "only a part of total psychiatric care." He also deplored the current parlor hynosis fad.

"Every time a magazine article or a television program rekindles public interest, I have patients asking me to hypnotize them and 'cure' headaches, allergies, arthritis and domestic or marital problems," Dr. Read said.

"These people have been led to believe that hypnosis is a glorious panacea, a wondrous 'cure-all' that instantly solves any physical or emotional problem. Such articles and programs rarely leave any other impression.

"Only people who have had adequate special training at accredited schools or universities should attempt to induce a hypnotic trance and even they should do so only when use of the technique is clearly indicated."

Exophthalmos in Thyroid Dysfunction

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ALTHOUGH the coincidence of thyroid dysfunction and exophthalmos was recognized in early Roman times,[1] the pathogenesis of this association is still not clear. Most prevailing theories of the pathogenesis of the proptosis fail to explain its occurrence in certain types of thyroid disease, or ignore related changes in other parts of the body. It is the purpose of this paper to suggest a broad and more unified approach to this problem by reviewing the principal factors currently held to be significant in exophthalmos associated with thyroid dysfunction, and by pointing out some of their major interrelations.

Are There Two Varieties of Exophthalmos?

It is a well known clinical fact that there are two extremes of exophthalmos associated with thyroid dysfunction. The mild type of exophthalmos is more apparent than real, for the seeming bulge is mostly the result of retraction of the upper eyelid. It is not accompanied by lid edema and chemosis unless, as rarely occurs, anasarca or local sepsis due to ulceration is present. The severe type of exophthalmos, characterized by gross symptoms and many complications, is often progressive in nature. Actual proptosis occurs; the anterior displacement of the eyeball may lead to venous and lymphatic obstruction, causing edema of the lids and chemosis. Inability to close the eyelids may lead to drying of the cornea, and thus to ulceration, perforation, and panophthalmitis. Pressure on the optic nerve and its blood supply by the increased orbital contents may cause central and paracentral scotomata. In extreme states, there may be complete extrusion of the eyeball. This severe type of exophthalmos is known by many names: thyrotropic exophthalmos, hyperophthalmopathic Graves' disease, progressive exophthalmos, and malignant exophthalmos.

There are many reasons for believing that these severe and mild forms of exophthalmos differ not only in clinical findings, but represent different disease processes. Mulvany[2,3] terms the mild form, "thyrotoxic" exophthalmos, because he believes it can be explained completely on the basis of an increase in circulating thyroid hormone. He terms the severe form: "thyrotropic" exophthalmos, for he believes it to be caused by excess circulating thyrotropic hormone (TSH). Dobyns[4] believes that increased intraorbital pressure is seen in thyrotropic exophthalmos, but not thyrotoxic exophthalmos. Cordes[5] states that in the thyrotoxic variety, one can push the eyeball back into the orbit, a feat which is impossible in the thyrotropic variety. Thyrotropic exophthalmos is three to four times more common in men than in women, the reverse of the sex incidence of the thyrotoxic variety.[6] Thyrotropic exophthalmos is seen more frequently in the older age groups (average age of men, fifty-four years; women, forty-seven years) in contrast to the other which is seen most often in young adults.[6] Thyrotoxic exophthalmos is always associated with thyrotoxicosis and is accentuated by administration of thyroid hormone; it is improved or unaltered by medical or surgical relief of the hyperthyroidism.[6] Thyrotropic exophthalmos, on the other hand, may be associated with a toxic goiter or may occur without hyperthyroidism or thyroid enlargement; it frequently follows or is accentuated by therapeutic relief of thyrotoxicosis.[7] Of twenty-one patients with thyrotropic exophthalmos studied by Millikan and Haines,[8] nine patients were hyperthyroid at the time of development of exophthalmos, seven were euthyroid following thyroidectomy, and five showed no evidence of past or present thyrotoxicosis. Gargill and Lesses[9], however,

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contend that investigators reporting cases of thyrotropic exophthalmos in euthyroid patients with no past evidence of thyrotoxicosis have not studied their patients intensively enough to rule out mild cases of such hyperfunction.

Pathological studies of the orbit also substantiate the claim of two mechanisms. In contrast to the thin, atropic muscle fibers found in the orbits of thyrotoxic exophthalmos, the extraocular muscles in thyrotropic exophthalmos are six to eight times normal size.[6] Rose[10] describes edema and hypertrophy of the nonmuscular intraorbital tissue and the lacrimal gland.

On the other hand, Means[11] considers these two extremes to be mild and severe manifestations of a single disease mechanism. He emphasizes the many degrees of severity between the two clinical extremes and points toward a single mechansim which is active in varying degrees. Perhaps a combination of the views of Mulvany and Means is most likely. Pure thyrotoxic exophthalmos, which is not a true proptosis, but it appears as such because of retraction of the superior eyelid, may occur. It may, however, frequently be complicated by a thyrotropic element. This results in a true proptosis which may vary in degree from a few millimeters to complete extrusion of the eyeball. A pure thyrotropic element must exist, in view of the exophthalmos developing after thyroidectomy.

Thyrotoxic Exophthalmos

Thyrotoxic exophthalmos has been explained by two factors: (1) thyroid-hormone-induced sympatheticotonia, and (2) thyroid-hormone-induced myopathy.[2,6]

Thyroid hormone induced sympatheticotonia.—Three sets of smooth muscle fibers are found in the orbital muscles. The first of these, Muller's palpebral muscle, is found associated with the *levator palpebrae superioris*; these fibers are fairly prominent in the human.[2] The other two sets of muscles, Muller's and Landstrome's orbital muscles, are attached in such a manner that their contraction pulls the eyeball forward in the orbit; these fibers are prominent in lower animals, but are vestigal structures in man.[12] These smooth muscles are innervated by the cervical sympathetics. Mulvany[2] has pointed out that the administration of either thyroxin or epinephrine alone will not produce exophthalmos in lower animals, whereas the administration of these two substances simultaneously will produce exophthalmos. Mulvany also showed that cervical sympathectomy relieves the lid retraction in thyrotoxic individuals, and he postulates that, thyroxin sensitizes smooth muscle fibers to the action of the sympathetic nervous system. Clinically, thyrotoxicosis is invariably accompanied by a sympatheticotonia. Lid retraction, or Stellwag's sign, a common feature of hyperthyroidism, may be attributed to the action of Muller's palpebral muscle. Mulvany believes that the retraction also decreases whatever retaining power the upper lid has upon the eyeball, thus potentiating true exophthalmos. Although the smooth muscles of the orbit in humans are vestigial, their weak traction might contribute to the production of exophthalmos.

Thyrotoxic myopathy.—The quadriceps femoris and occasionally generalized muscle weakness of hyperthyroid individuals has been shown by pathological studies to be the result of true myopathy. A similar myopathy is found in the extraocular muscles of the hyperthyroid individual.[2] In the light of these pathological findings, Galli-Mainini[13] has theorized that the pull of the extraocular muscles normally balances the pushing force of the tissue pressure in the orbit, but in thyrotoxicosis the extraocular muscles are weakened allowing proptosis, and thus tissue pressure falls. Fluid then exudes from the capillaries until a new equilibrium is reached with the muscles stretched and the eyeball protruding. Although this is an attractive theory, it is difficult to believe that the myasthenia which occurs in thyrotoxicosis could allow anything but a slight, if not insignificant, degree of proptosis.

Thyrotoxic exophthalmos thus seems to be related directly to an increase in circulating thyroid hormone and the local effects of this hormone. The major factor in the production of this type of exophthalmos is probably the lid retraction producing an apparent, but not true, proptosis. The myasthenia would seem to play a role, albeit a minor one. Consequently, it is perhaps best to think of thyrotoxic exophthalmos as being almost equivalent to Stellwag's sign, and, therefore possessing the same clinical importance.

Thyrotropic Exophthalmos

The pathogenesis of thyrotropic exophthalmos is even more obscure and fraught with contradictions. A number of factors have been shown to be of importance.

The Role of the Anterior Pituitary.—It is well established that the administration of anterior pituitary extract or TSH to various experimental animals will produce exophthalmos and thyroid hyperplasia[14-17] The degree of exophthalmos is proportional to the

amount of TSH administered,[17-19] and is accentuated by thyroidectomy.[20,21] Cervical sympathectomy will not relieve exophthalmos produced by this method.[20] Such experimental proptosis may be attributed to an increase in the size of the extraocular muscles, retrobulbar connective tissue, and lacrimal gland in the orbit.[10,17,20] Histologically and chemically, the orbital structures are edematous, and infiltrated with a hyaluronidase-sensitive, metachromatically-staining mucopolysaccharide ground substance.[21-24] The orbital tissues also show an increased content of hexosamines, basic constituents of the acid mucopolysaccharides of the ground substance.[22,24] Pochin[18] found that the degree of exophthalmos was proportional to the water content of the orbital tissues. This is not surprising, since it is well known that the acid mucopolysaccharides have great water-binding properties. The same histochemical changes have been found in humans with thyrotropic exophthalmos.[25]

Recent evidence suggests that it is not TSH, *per se*, which causes the changes in the orbit leading to exophthalmos. Jefferies[26] has produced exophthalmos in the guinea pig with an extract of the anterior pituitary in which TSH was inactivated. Dobyns[27] has obtained two substances from anterior pituitary extract. One produces exophthalmos and no thyroid hyperplasia; he calls this the exophthalmos-producing substance (EPS). The other produces thyroid hyperplasia, but does not cause exophthalmos. These two factors are closely associated in extracts of the anterior pituitary, and it is conceivable that they are different groups on the same molecule.[27]

Another factor in extracts of anterior pituitary causes mobilization of fat, lipemia, and deposition of fat in the liver, kidney and muscles.[19,23] It may be of importance in the pathogenesis of thyrotropic exophthalmos. This "fat-mobilizing principle" is associated with TSH and EPS in pituitary extracts and may be identical with one of them.

Thus, the evidence strongly suggests that the mechanism of thyrotropic exophthalmos in man is similar to that of experimental exophthalmos, and that the proptosis is a result of the action of one or more factors of the anterior pituitary. Clinically, thyrotropic exophthalmos has been shown to be associated with abnormal pituitary activity. Hypophysectomy and pituitary x-irradiation have led to the regression of the exophthalmos except in the long-standing (presumably irreversible) cases.[28-30] Furthermore, histologic study of one gland showed an increase in size of the amphophil cells which are supposed to be the site of TSH production.[28]

It has been reported, however, that short-term TSH fails to produce significant exophthalmos in normal and thyroidectomized humans.[31] This failure might be due to insufficient TSH dosage, anti-TSH antibody production by the subjects, failure of EPS to be included in the extract used, or a combination of these factors.

It has also been reported that thyrotropic exophthalmos may be accompanied by either high or low serum levels of TSH.[32] Cohen[33] thinks that TSH may be increased only in the active or evolutionary stage of thyrotropic exophthalmos, the exophthalmos remaining after TSH production decreases because of irreversible infiltrative and fibrotic changes in the orbital tissues. Such pathologic findings are common in longstanding thyrotropic exophthalmos.[34] It is also possible that TSH activity does not truly reflect the activity of EPS. Dobyns[35] has shown that exophthalmos may be produced in the Atlantic minnow, *Fundulus*, with serum from patients with thyrotropic exophthalmos. The degree of the exophthalmos so produced is proportional to the severity of the exophthalmos in these patients.

The Role of the Thyroid Gland.—One influence of the thyroid on thyrotropic exophthalmos may be on the basis of inhibition of the pituitary. Administration of the goiterogen methyl cyanide will produce exophthalmos in experimental animals.[36] Furthermore, TSH-produced exophtalmos is reduced by concomitant treatment with thyroid hormone.[37] Iverson and Asboe-Hansen[21] have reported that the secretions of EPS, fat-mobilizing principle, and TSH are all inhibited by thyroid hormone. In humans, on the basis of I^{131} uptake, basal metabolic rate, and protein-bound iodine I^{131} studies, it has been shown that thyroid hormone decreases thyroid function by pituitary inhibition.[38] Clinically, Dobyns and Haines[39] found that in all instances of thyrotoxicosis associated with exophthalmos, thyroidectomy produced an increase in eye prominence which could sometimes be reduced with subsequent thyroid hormone therapy. Soley,[7] using careful exophthalometer measurements, found that sub-total thyroidectomy for diffuse toxic goiter increased the degree of exophthalmos in 50 per cent of cases; thyroidectomy decreased the exophthalmos in very few cases, although it appeared to decrease it in many, owing to alleviation of lid retraction. The fact that a thyrotoxic individual will fail to show decrease in I^{131} uptake after administration of triiodothyronine,[40] indicates that normal inhibition of TSH is lacking in thyrotoxic goiter. Thus, lack of inhibition of the anterior pituitary secretions

by thyroid hormone may play a role in the pathogenesis of thyrotropic exophthalmos.

Another possible function of the thyroid gland in the pathogenesis of exophthalmos has been suggested by Dobyns and Rawson.[41] They found that if anterior pituitary extract is incubated with thyroid tissue, it loses its thyroid-stimulating, exophthalmos-producing, and fat-mobilizing actions. If this inactivated substance is then treated with a mild reducing agent, the activity is restored. According to Rawson, as reviewed by Curtis,[42] tissue from a diffuse toxic goiter can inactivate all thyroid-stimulating and exophthalmos-producing properties, but normal tissue will inactivate only a portion, and tissue from a nodular goiter will not inactivate any of the properties of the anterior pituitary extract. Further studies showed that patients with diffuse toxic goiter have no TSH activity in unheated urine and great activity if the urine is first heated, resulting from oxidation of the TSH in the urine due to the presence of small amounts of ascorbic acid. Patients with myxedema due to primary thyroid disease showed high TSH activity in unheated urine which was not intensified by heating. Studies of two patients with thyrotropic exophthalmos revealed the same findings. Moderate TSH activity was present in the urine of normal individuals and such activity was only slightly increased by heating. These findings lead Rawson to conclude that a toxic goiter has increased capacity to inactivate TSH, but that in thyrotropic exophthalmos part or all of this activity is lost.

Dobyns[35] reported that EPS from the serum of patients with thyrotropic exophthalmos requires more time to produce exophthalmos in the *Fundulus* than does EPS extracted from the anterior pituitary. He suggested the possibility that the EPS in the serum of these patients has been altered in some manner, or is attached to a substance in the serum which results in slow absorption from the injection site. Thus, there is a possibility that the thyroid gland either fails to detoxify certain anterior pituitary factors, or that it alters these factors so that they now have the ability to affect the connective tissue in such a manner as to produce exophthalmos.

The Role of Other Endocrine Glands.—The effects of other endocrine glands on exophthalmos have been greatly disputed. The fact that thyrotropic exophthalmos is four times more common in men than women implicates some gonadal influence. Marine and Rosen[43,44] observed that castration prevented the development of exophthalmos in male and female rabbits, but not guinea pigs, treated with anterior pituitary extracts. The administration of testosterone resulted in the development of exophthalmos in these males, whereas estrogens had no effect on the lesion in females.

It has been reported that ACTH accentuates TSH-produced exophthalmos in animals;[45] amounts of TSH unable to produce exophthalmos alone, were effective when ACTH or cortisone was added. It has been shown, however, that such cortisone-potentiated exophthalmos results from disproportionate growth of the eyeball and skull.[46,47] Clinically, no reports have been made of increased exophthalmos following ACTH or cortisone treatment.[48] Many reports have shown just the reverse.[10,29,48,49] Cortisone is thought to act by promoting the dissolution of ground substance.[50] It has been shown that TSH, or some associated factor, will increase, while cortisone will decrease, the amount of metachromatically-staining, hyaluronidase-sensitive substance in the connective tissues, both in thyroidectomized animals, and in those with the thyroid gland intact.[24,48,50,51,52] Others have speculated that perhaps cortisone produces an inhibitory effect upon the anterior pituitary production of TSH.[49]

The Role of Local Factors.—Connective tissue changes are not confined to the orbit in thyrotropic exophthalmos. Asboe-Hansen[53] reported that identical changes occur diffusely in the fibrous interconnections of muscles in all his cases of thyrotropic exophthalmos with no thyrotoxicosis, and in 45 per cent of cases of thyrotoxicosis with minimal or no exophthalmos. Experimentally, although administration of TSH to normal and thyroidectomized guinea pigs produces connective tissue changes in the orbit, similar changes (accumulation of mucopolysaccharide ground substance and water) occur to a lesser degree diffusely in the connective tissue of the body.[19,23] Furthermore, in 25 per cent of cases, thyrotropic exophthalmos is associated with a circumscribed myxedema.[54] This tissue is found in isolated plaques, most often in the integument of the anterior surfaces of the legs, but occasionally in the integument of the arms or the anterior abdominal wall. There is a metachromatically-staining, hyaluronidase-sensitive infiltrate in the tissues[48,55] which contains increased amount of hyaluronic acid, chondroitin sulfuric acid and water.[55,56] These changes occur, for the most part, perivascularly. Consequently, it appears likely that anterior pituitary factors produce exophthalmos not through a specific action in the orbit, but by generalized connective tissue alterations. Why then, are these alterations manifest to the greatest degree in certain areas of the

body, that is, the orbit and localized plaques, and not in others? Obviously, local factors are implicated in the pathogenesis of these connective tissue changes.

Thyrotropic exophthalmos may be unequal bilaterally or may be manifest only unilaterally.[5,10] A difference in the volumes of the bony orbital spaces might explain some cases of asymmetric exophthalmos. Warthin[57] may have shed some light on another local factor. He reported that, although pretibial myxedema was not relieved by systemic triiodothyronine, temporary regression was produced by local instillation of this substance. He thinks that pretibial myxedema is caused by a local deficiency of thyroid hormone, perhaps owing to tissue sensitivity.

Correlation of the Various Factors.—It is obvious that the pathogenesis of thyrotropic exophthalmos is yet to be elucidated. Multiple factors must be involved which lead to widespread changes. Secretions of the anterior pituitary promote the deposition of ground substance in connective tissue. In normal individuals, the secretion of these substances may be regulated by the level of circulating thyroid hormone. In thyrotropic exophthalmos, the anterior pituitary hormones may be increased by neural stimuli, a relative or absolute thyroid hormone deficiency, or both. In addition, inactivation of these anterior pituitary substances by the thyroid gland may also be deficient. In severe hypothyroidism, there is a distinct lack both of thyroid hormone and the inactivation action of the thyroid gland, and there is deposition of excess ground substance in the connective tissue.[53,58] Histologically, this so-called "primary myxedema" is identical with the circumscribed myxedema found in cases of thyrotropic exophthalmos.[57] In both instances, serum TSH levels are elevated.[32,42] Galli-Mainini[13] reported that twenty-one of thirty-four patients with severe hypothyroidism had ophthalmometrically measurable exophthalmos. He believes that the puffy periorbital facial tissue seen in hypothyroidism conceals exophthalmos in many such patients. However, his study showed that exophthalmos is not present in all such cases. Furthermore, Gabrilove and Ludwig[58] have reported that primary myxedema and secondary (pituitary) myxedema are also histologically identical. In the latter condition, pituitary hormone could not be elevated.

Other factors also affect the connective tissue. Cortisone causes the reabsorption of the ground substance. It, therefore, counterbalances the effect of the anterior pituitary. In addition, cortisone may have a direct inhibitory action on the secretion of the anterior pituitary. However, cortisone, too, is deficient in secondary myxedema.

Thyroid hormone, aside from its action on the anterior pituitary, may also have a direct effect on the connective tissue. Gabrilove and Ludwig[58] report that thyroid hormone will cause disappearance of primary and secondary myxedema. This has been correlated with the disappearance of edema and mucopolysaccharides in the connective tissue.[48,58] However, only if instilled locally will thyroid hormone cause the disappearance of circumscribed or (pretibial) myxedema.

The role of the gonads is yet to be elucidated. They have been seen to have an effect experimentally. In view of the difference in sex incidence of thyrotropic exophthalmos, further investigation is warranted.

Local factors are the most obscure. The frequent asymmetry of exophthalmos cannot be explained entirely on differences in orbital size. Furthermore, circumscribed myxedema is rarely found except on the anterior surfaces of the legs, and even here, it is localized in discrete plaques. Yet, there are also diffuse, although less marked connective tissue changes. Another paradox is found in primary hypothyroid myxedema. Here, there are generalized connective tissue changes, but exophthalmos is not always present. What other factors prevent exophthalmos when there most certainly should be elevated anterior pituitary secretions? And why should one get connective tissue alterations in secondary (pituitary) myxedema?

The answer to the problem of thyrotropic exophthalmos must lie in the complex interrelationships of the endocrine system and the effects of the various hormones on the connective tissue. At this moment, the hypophysis, thyroid, adrenals, and gonads are implicated. An equilibrium must exist in the normal individual which controls the normal connective tissue metabolism. When this balance is upset, probably in any one of a variety of ways, an alteration in the connective tissue results. This is manifest by a generalized deposition of ground substance, which, when compounded by other, possibly local factors leads to such conditions as thyrotropic exophthalmos, primary and secondary myxedema, and circumscribed myxedematous plaques. The occasional occurrence of spontaneous regression of thyrotropic exophthalmos might be interpreted as a natural readjustment of the homeostatic mechanism.

Summary

The theories of the pathogenesis of exophthalmos associated with thyroid dysfunction have been reviewed. Thyrotoxic exophthalmos appears to be re-

lated only to excess circulating thyroid hormone which produces a sympatheticotonia, and myasthenia of the extraocular muscles. Lid retraction is probably the major factor operating in these cases, and the consequent, apparent exophthalmos, is to be given the same clinical consideration as Stellwag's sign. Thyrotoxic exophthalmos may occur alone, or be combined with a superimposed thyrotropic exophthalmos.

True proptosis is produced by thyrotropic exophthalmos. Such proptosis may vary from a few millimeters to complete extrusion of the eyeball. This thyrotropic exophthalmos appears to result from a breakdown in the complex endocrine control of the connective tissue metabolism. The anterior hypophysis, thyroid, adrenal cortex, and gonads seem to be of significance in this control. When the physiologic equilibrium between these glands is upset, probably in any of a variety of ways, ground substance accumulates in the connective tissue throughout the body. The most important factor seems to be the overproduction of EPS by the anterior hypophysis. Unknown local factors must also be important.

Acknowledgment

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In the interest of conserving space, the references are excluded but may be obtained from the author on request.

Suggests Ways to Cut Traffic Toll

A representative of the American Medical Association told Congress recently that improvement of automobile design and installation of safety equipment promise the greatest possibility for rapid reduction in the highway injury and death toll. There is ample evidence of the definite values of certain safety features of automobile design, construction, and equipment, yet these safety features if available at all, are all too often offered as optional equipment at extra cost.

F. J. L. Blasingame, Executive Vice President of the A.M.A., proposed as a standard equipment anchorage for seat belts; crash padding of the dashboard, roof, and other areas; improved steering wheel and recess post; safety door locks; removal of dangerous knobs and edges; and elimination of dangerous exterior design features. These would be far better for the driver than yards of shiny chrome!

Routine Use of Intravenous 6-Methylprednisolone

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AFTER A decade of steroid therapy we still find ourselves in a wilderness, striving to find that preparation which is therapeutically efficacious, medically potent, and produces the least amount of untoward reactions. For the past seventeen months, I feel that I have been close to such an adrenal steroid while investigating the merits of intravenous 6-methylprednisolone succinate.[1] In that time, seven hundred patients with thirty-one different dermatoses have received more than 140,000 milligrams of this medication. These patients have ranged in age from a six-weeks-old infant to a ninety-five-year-old adult. Ninety per cent of this group of patients were seen in the office and among these were individuals who had hypertension, congestive heart disease, peptic ulcers, diabetes, severe emphysema and arrested tuberculosis.[2] None of these associated diseases were aggravated by the medication. Use of this medication reduces the excessive need of local therapy with lotions, salves, and wet dressings, and in this way decreases the incidence of over-treatment dermatitis. On the other hand, it is not a cure-all and should be judiciously used with older and better known conventional types of treatment. There is no desire to deprecate the use of oral adrenal steroid medication but if large dosage of these drugs is required over a period of time (more than 16 mg. of 6-methylprednisolone or its equivalent a day for three weeks), or a rapid response to treatment is demanded, then intravenous 6-methylprednisolone is strongly suggested. Although my work with this preparation has been in the field of dermatology, there is no reason why the use of this medication cannot be projected into any indicated field of medicine. During these months of investigation, it was noted that despite the relatively large dosage of 6-methylprednisolone that was being used, none of the patients developed any Cushingoid symptoms nor any of the other well known adrenal steroid side reactions. To date, we have noted no osteoporosis, symptoms of adrenal atrophy, nor psychic depression. No patient receiving the drug has died, either because of disease or trauma so that no post mortem examinations have been available to reveal any possible undisclosed visceral changes. Ninety-five per cent of the patients have a feeling of well being; 75 per cent of the patients noted an increase in their appetites, and only a relatively few patients have become hyperactive which was manifested by mild euphoria, restlessness and insomnia. Most stated that they felt as if they had increased amounts of energy. Several patients had developed moon facies while receiving oral adrenal steroid therapy. When these patients were transferred to intravenous 6-methylprednisolone, and despite the fact that they were receiving 20 milligrams or more of the drug per day, the moon facies disappeared in a relatively short time. This can be seen usually after the first ten days of treatment and within thirty-seven days most of the moon facies is gone.

As of this moment, there is no definite explanation of the phenomenon that despite the high dosage and the large number of injections of intravenous 6-methylprednisolone, to date there have appeared no severe adrenal steroid side reactions. Oral 6-methylprednisolone is a synthetic compound and it is thought that in the upper gastro-intestinal tract the methyl radical may be sheared off by the action of the digestive juices and enzymes, or by the interference of intestinal bacteria. As a result of this action, a percentage of the drug is converted to cortisone. On the other hand, when the drug is given intravenously or intramuscularly, this action does not take place and the com-

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Presented at the meeting of the Michigan Academy of General Practice, November, 1959, Detroit.

6-Methylprednisolone Succinate has the trade name of Solu-Medrol and was supplied for this study by The Upjohn Company, Kalamazoo, Michigan.

pound probably remains as 6-methylprednisolone during its short period of life in the circulatory system. I believe also that intravenous 6-methylprednisolone produces a peak stimulating reaction in the body for its anti-inflammatory effect. H. F. West of the Sheffield Center for the Investigation and Treatment of Rheumatic Diseases, Nether Edge Hospital, England, has offered the following suggestion: "The essential difference between your treatment in contrast to the daily administration of oral corticosteroids is that you raise the concentration of available corticosteroids above normal levels via the systemic route and allow the adrenals to work normally before the next dose is given. When ten milligrams of 6-methylprednisolone is given daily by mouth, the adrenal involutes to some extent and adds very little corticosteroids to the circulation each day." At the present moment, Dr. Herbert Kupperman of the Bellevue Medical Center is continuing basic investigative work on this medication. Up to this time he has been unable to give me any specific laboratory findings with regard to the medication. I hope that in the near future a more complete answer will be available.

The response to treatment with 6-methylprednisolone is always rapid and may sometimes be dramatic, whether the patient has a mild or a serious disease. The optimal dosage is 20 mg. per treatment but some of the patients have received 90 to 150 mg. per day for as long as three weeks. The frequency of injections decreases as the patient improves and some cases have received the drug only once a week for as long as nine months. If the patient received the drug daily, no oral adrenal steroid medication was given, but if an every-other-day schedule or once-a-week schedule was employed, the patient was given oral adrenal maintenance steroid therapy not exceeding 12 mg. per day, or a depot injection of 6-methylprednisolone acetate, 40 to 80 mg. per week. If the treatment is terminated prematurely or if maintenance oral therapy is not instituted because of the rapid response of the disease to medication, rebound reactions will occur. Should the patient have inaccessible veins, one may resort to intramuscular administration. During this treatment, we noted little weakening of natural defenses against infection while local and systemic disease manifestations were being suppressed.

The drug is a white powder, chemically known as methylprednisolone sodium succinate, buffered with phosphate and containing lactose as a diluent. It is mixed with 1 cc. of distilled water in a "Mix-O-Vial" container. The desired dosage, measured in milligrams, is withdrawn and is diluted further with distilled water in a syringe to a 2 cc. volume. This is done in order to facilitate its use. The medication can stay in solution for at least a week without deteriorating but after that time the solution becomes milky and flocculent. If given intravenously, the injection time is twenty to thirty seconds. Up to the present moment, there has been no attendant immediate or delayed reaction to the injection of the drug.

Time does not permit the discussion of individual groups of patients, but a few moments can be taken to mention some unusual findings and to show photographs of other cases. The duration, severity and incidence of post-herpetic pain in patients with herpes zoster is reduced. No patient in this group was seen any longer than three to four weeks. Two patients with scleroderma have received over 6,000 mg. of combined oral and intravenous 6-methylprednisolone and there has been no progression of the disease since treatment was started. Patients with pemphigus respond very well to the medication, but must receive a minimum of 90 mg. of the drug per day for at least three weeks. One patient has received as much as 50 mg. three times a day. At the end of this time, there is usually little evidence of cutaneous lesions. Patients with acute disseminated lupus erythematosis[3] respond rapidly to the medication. One patient who had positive L.E. cells prior to therapy, had no L.E. cells in the peripheral blood smear fourteen days after treatment was started. A total of three injections of 6-methylprednisolone given at a three-day interval was sufficient therapy to clear a number of patients with pityriasis rosea. Because of the anaphylactoid reactions recently attributed to penicillinase and our own good results in treating penicillin reactions with intravenous 6-methylprednisolone, we strongly recommend this compound for treatment of such dermatitis medicamentosa problems.

Conclusions

This report summarizes the results of the routine treatment of 700 patients with 31 different dermatoses with I.V. 6-methylprednisolone. A total of more than 140,000 mg. was given in a period of seventeen months, of which 90 per cent of the patients were seen in office practice. I wish to emphasize the fact that in this series of cases, no patient developed Cushingoid symptoms nor any of the other severe reactions often associated with the administration of adrenal steroid preparations. Patients who did develop Cushingoid symptoms on oral adrenal steroid preparations, lost their moon facies, et cetera, when transferred to intravenous steroid treatment despite the use of 20 or more

milligrams of I.V. 6-methylprednisolone daily. The optimal dosage may vary from 20 to 150 mg. a day and the treatment schedules may vary according to the severity of the disease. A plausible explanation of why intravenous 6-methylprednisolone does not produce untoward adrenal steroid side reactions has been offered. I re-emphasize the fact that we do not advocate discontinuation of oral adrenal steroid therapy but we do recommend the use of I.V. 6-methylprednisolone when large doses of adrenal steroid will have to be given over a long period of time or where a rapid response to treatment is demanded.

I cannot promise you that all patients treated will have a favorable response to this adrenal steroid, but insofar as I know, neither will any be incapacitated by the side effects of the medication. Now that I have had eighteen months of experience with this preparation, I would consider practice without I.V. 6-methylprednisolone as taking me back to the horse and buggy days of medical practice. I.V. 6-methylprednisolone has broken the adrenal steroid side reaction barrier and has antiquated the continuous use of I.V. ACTH. The lack of Cushingoid and other untoward adrenal steroid side reactions in this series of cases, the acceleration of the anti-inflammatory effect in the therapeutic response of cutaneous diseases, the reduction of required follow-up maintenance or oral adrenal steroid medication, the elimination of long-term hospitalization, and the fact that continuous daily intravenous steroid therapy is unnecessary, renders routine treatment with intravenous 6-methylprednisolone in the office, home or hospital, a safe, practical and useful procedure.

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Tooth Decay

Scientists at Michigan State University have developed further evidence that heredity influences tooth decay in rats.

Their findings were reported at a session of the 1960 meeting of the Michigan Academy of Science, Arts, and Letters at The University of Michigan.

In earlier studies, the Michigan State research team succeeded in developing two strains of rats, one susceptible and the other resistant to tooth decay (dental caries).

To test earlier findings, a new-born litter from the susceptible strain was nursed by a decay-resistant mother and a new-born litter from the resistant strain was nursed by a mother susceptible to tooth decay.

However, the animals resistant to tooth decay remained resistant and those from the susceptible strain remained susceptible, reported Dr. Samuel Rosen, bacteriologist.

He explained that the experiment indicates that factors which make the animal susceptible or resistant are not transmitted directly to the litter by the nursing mother but are due to the genes (hereditary factors) possessed by the animals.

The Michigan State researchers are now primarily interested in finding the specific factors responsible for the resistance or susceptibility to tooth decay.

Paternity Tests in Wayne County

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WITH the enactment in 1954 of a law[1] entitled, "An act to authorize blood tests to determine paternity," Michigan joined a growing number of states* accepting the results of blood-grouping tests as evidence in court. When the results of these tests proved a defendant was incapable of being the natural father of a child, the initial law provided that this scientific evidence would be conclusive in civil cases other than bastardy proceedings. The jurist hearing bastardy cases was given permissive power to acquit a defendant when the blood tests excluded him as the father of the child. During the first few months this statute was in effect, several disturbing events occurred in cases being heard in the Wayne County Circuit Court. In several instances, the reports of the serologic tests performed on the same individual by different laboratories were in disagreement. In one case, opposite conclusions were drawn by two serologists whose serologic data were identical. In another case, the mother was erroneously excluded by one of three laboratories to which the litigants were referred for testing. This confusion, which may have resulted from inexperience with the tests or from lack of familiarity with the laws of inheritance of the blood-group factors, jeopardized the validity of this type of laboratory evidence in the eyes of judges and attorneys alike. A wave of adverse newspaper publicity served only to magnify the difficulty.

The original paternity law[2] was changed in 1955 to provide that children tested must be at least six months of age, and to limit the admissibility of this evidence to bastardy cases. There is ample scientific reason for delaying the testing of a child until the age of six months. At this age, the normal antibodies of the ABO system will be present in sufficiently high titer to be useful in proving the results obtained with direct grouping tests. In 1956, a new law[3] entitled, "The Paternity Act," was adopted to provide for certain procedural revisions and modernization of statutes covering problems of bastardy dating back to 1846. The Paternity Act also incorporated provisions concerning blood tests as they were established the preceding year, and in the social interests of the children, abandoned the use of the term *bastardy proceeding* in favor of the term *paternity proceeding.*

The acceptance of blood grouping tests as evidence in civil proceedings—actions for divorce, to give an example—is completely in accord with biologic fact. It is contrary to biologic fact to deny relief to a defendant charged with paternity when serologic tests prove that the man is genetically incapable of being the natural father of the child in question. The present Michigan statute permits the judge to consider the scientific evidence along with all other facts elicited from witnesses, but he may completely disregard the results of these impartial tests. Precedent has been established by seven states** in which the statutes provide that serologic proof of nonpaternity is conclusive. In Maryland,† the law actually directs the admission of the serologist's results in an exclusion as *prima facie* evidence of nonpaternity. In the remaining sixteen states possessing such statutes, the serologist's report of an exclusion is admitted as expert testimony, as it is in Michigan, for consideration along with all other acceptable evidence, whether factual or expert in nature. The most serious objection by the

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*The following twenty-three states enacted statutes between 1935 and 1957, accepting the results of blood-grouping tests: Arkansas, California, Colorado, Connecticut, Illinois, Indiana, Massachusetts, Maine, Maryland, Michigan, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, West Virginia, and Wisconsin.

**California, Illinois, Maryland, New Hampshire, Oregon, Utah, and Wisconsin.

†Art. 12, sec. 17, Compiled Statutes of Maryland.

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judicial community to the use of these tests in divorce or other civil proceedings concerns the ancient position of common law that children born in wedlock are always to be regarded as legitimate. Blood tests in disputed paternity are of great assistance to the courts in providing accurate and impartial scientific evidence. The care with which the courts select their scientific experts, therefore, will determine the success of the program. While only one state fails to specify in its statute who may perform these tests, most of the states only loosely define the qualifications of those who may be selected as experts.

TABLE I. DISTRIBUTION OF EXCLUSION OF THIRTY-EIGHT ALLEGED FATHERS BY BLOOD GROUP SYSTEM OR COMBINATION OF SYSTEMS
(250 Men Tested)

System	Number Excluded
ABO	9
ABO and Rh	5
ABO and MN	3
ABO, MN and Rh	2
Rh	9
Rh and MN	1
MN	9
Total excluded	38

The expert accepting this type of work is obligated to exercise meticulous care in establishing his protocol for the tests. If erroneous results are to be avoided, it is also necessary to adhere rigidly to these details. It is highly desirable that all tests resulting in serologic exclusion of an alleged father be confirmed by independent tests in a reference laboratory. The major problems concern identity of the persons tested, availability of suitable control cells, and sufficient replicate tests with test serums of different manufacturers to remove all doubt of the validity of the results. It has been our habit to record the thumbprints of adults and the footprints of children at the time they present themselves for venesection. The identification sheets are submitted to the court with the formal report. Our panel of blood cells used as controls is drawn from approximately 150 persons employed or residing at Wayne County General Hospital. Antiserums of at least two different manufacturers are used in testing for each blood-group factor for each group of tests performed. On the average, six unknown samples and ten control specimens have been tested for each group of persons examined in a single paternity case. Test-tube methods have been employed almost exclusively. To re-emphasize the necessity for replicate testing, we have performed about 30,600 tests on the persons in the 250 paternity cases forming the basis of this report. These tests were controlled by about 17,800 tests on 596 specimens of known cells. Tests for the following blood factors have been carried out in all specimens: A, B, A_1, M, N, Rh_0 (D), rh′ (C), rh″ (E), and hr′ (c). Tests for factor hr″ (e) have been made where indicated.

TABLE II. FREQUENCY OF EXCLUSION, BY BLOOD GROUP SYSTEM, OF THIRTY-EIGHT ALLEGED FATHERS
(250 Men Tested)

System	Total Number Excluded	Number Excluded by System	Per Cent
ABO	38	19	50
Rh	38	17	45
MN	38	15	39

Occasionally, other factors have been identified. With a few exceptions during the early months of the study, all serologic exclusions have been verified in the laboratory of a consultant by independent tests on previously unopened duplicate samples of blood obtained expressly for this purpose. In only six cases has it been necessary to obtain additional samples of blood for further study or re-evaluation.

During the past three and one-half years, we have tested 250 groups of persons. In thirty-eight of these groups (15.2 per cent), it was shown to be genetically impossible for the alleged father to have been the natural father of the child tested. The data in Table I show that in twenty-seven cases, the putative father could be excluded on the basis of incompatibility in a single system (nine in ABO, nine in Rh, and nine in MN); nine were excluded by incompatibilities in two systems (five in ABO and Rh, three in ABO and MN, and one in Rh and MN); and two men were excluded by all three systems. Table II lists the data for frequency of exclusion by each of the three blood-group systems we employed. In about 50 per cent of our cases, incompatibility in the ABO system, alone or in part, permitted exclusion. Incompatibility in the MN system, in whole or in part, led to 39 per cent of the exclusions, and incompatibility in the Rh system was responsible for approximately 45 per cent of the exclusions. Table III lists all of the thirty-eight cases which were excluded, showing the phenotypes and the specific factors responsible for exclusion. There were no instances of exclusion of the mother.

Our rate of exclusion, 15.2 per cent (thirty-eight of 250 men tested), compares favorably with the experience of others.[10] It is well to recall that the overall chance of excluding men falsely accused of pater-

TABLE III. PHENOTYPES OF CASES IN WHICH THIRTY-EIGHT ALLEGED FATHERS WHERE EXCLUDED BY TESTS OF DISPUTED PATERNITY

Wayne County Circuit Court, 1955-58

Case Number	Person Tested*	Phenotype				Basis of Exclusion of Paternity	Number of Children Involved
1	Mo.	A_1	MN	$Rh_0hr'+$	(ccDe)	Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	A_2	MN	$Rh_1hr'+$	(CcDe)		
	P.F.	O	M	$Rh_0hr'+$	(ccDe)		
7	Mo.	O	MN	$Rh_2hr'+$	(ccDE)	ABO: A in Ch.	1
	Ch.	A_1	M	$Rh_0hr'+$	(ccDe)		
	P.F.	O	MN	$Rh_1hr'+$	(CcDe)		
8	Mo.	O	MN	$Rh_1hr'+$	(CcDe)	Rh: homozygous rh′ in P.F.; homozygous hr′ in Ch.	1
	Ch.	O	M	rh hr′+	(ccde)		
	P.F.	A_1	MN	Rh_1hr' neg.	(CCDe)		
15	Mo.	A_2	MN	$Rh_1hr'+$	(CcDe)	MN: homozygous M in Ch.; homozygous N in P.F.	1
	Ch.	A_1	M	$Rh_0hr'+$	(ccDe)		
	P.F.	A_1	N	$Rh_0hr'+$	(ccDe)		
19	Mo.	O	M	$Rh_2hr'+$	(ccDE)	ABO: A in Ch.; MN: homozygous M in Ch.; homozygous N in P.F.; Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	A_1	M	$Rh_1hr'+$	(CcDe)		
	P.F.	O	N	$Rh_0hr'+$	(ccDe)		
21	Mo.	O	MN	$Rh_1Rh_2hr'+$	(CcDE)	ABO: A in Ch.; MN: homozygous M in Ch.; homozygous N in P.F.	1
	Ch.	A_1	M	$Rh_1hr'+$	(CcDe)		
	P.F.	O	N	$Rh_1hr'+$	(CcDe)		
24	Mo.	A_1	M	$Rh_0hr'+$	(ccDe)	ABO: B in Ch.	1
	Ch.	A_2B	M	$Rh_0hr'+$	(ccDe)		
	P.F.	O	M	$Rh_1hr'+$	(CcDe)		
25	Mo.	O	N	$Rh_2hr'+$	(ccDE)	ABO: A in children; Rh: rh′ in children; homozygous hr′ in Mo. and P.F.	(Twins) 2 of 2
	Ch.	A_1	MN	$Rh_1Rh_2hr'+$	(CcDE)		
	Ch.	A_1	MN	$Rh_1Rh_2hr'+$	(CcDE)		
	P.F.	O	MN	$Rh_2hr'+$	(ccDE)		
29	Mo.	A_1B	M	$Rh_2hr'+$	(ccDE)	Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	B	MN	$Rh_1Rh_2hr'+$	(CcDE)		
	P.F.	O	MN	$Rh_0hr'+$	(ccDe)		
30	Mo.	O	MN	$Rh_2hr'+$	(ccDE)	MN: homozygous N in Ch.; homozygous M in P.F.	1
	Ch.	O	N	$Rh_2hr'+$	(ccDE)		
	P.F.	O	M	rh hr′+	(ccde)		
33	Mo.	O	M	$Rh_1Rh_2hr'+$	(CcDE)	MN: homozygous M in Ch.; homozygous N in P.F.	1
	Ch.	O	M	$Rh_2hr'+$	(ccDE)		
	P.F.	O	N	rh hr′+	(ccde)		
59	Mo.	A_2B	M	$Rh_0hr'+$	(ccDe)	ABO: subgroup A_1 in Ch.	1 of 2
	Ch.	A_1	MN	$Rh_0hr'+$	(ccDe)		
	Ch.	A_2	MN	$Rh_0hr'+$	(ccDe)		
	P.F.	O	MN	rh hr′+	(ccde)		
70	Mo.	A_2	N	$Rh_2hr'+$	(ccDE)	Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	A_2	N	$Rh_1Rh_2hr'+$	(CcDE)		
	P.F.	A_1	MN	rh hr′+	(ccde)		
78	Mo.	B	MN	$Rh_1hr'+$	(CcDe)	ABO: A in Ch.	1
	Ch.	A_1	M	$Rh_1hr'+$	(CcDe)		
	P.F.	O	M	$Rh_2hr'+$	(ccDE)		
89	Mo.	O	N	rh hr′+	(ccde)	ABO: A in Ch.; MN: M in Ch.; Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	A_1	MN	$Rh_1Rh_2hr'+$	(CcDE)		
	P.F.	B	N	$Rh_0hr'+$	(ccDe)		
95	Mo.	B	M	$Rh_1hr'+$	(CcDe)	Rh: homozygous rh′ in Ch.; homozygous hr′ in P.F.	1
	Ch.	B	MN	Rh_1hr' neg.	(CCDe)		
	P.F.	O	MN	$Rh_0hr'+$	(ccDe)		
98	Mo.	O	N	$Rh_0hr'+$	(ccDe)	ABO: A in Ch.; Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	A_1	MN	$Rh_1hr'+$	(CcDe)		
	P.F.	B	M	$Rh_0hr'+$	(ccDe)		
106	Mo.	A_1	MN	$Rh_0hr'+$	(ccDe)	ABO: B in Ch.	1
	Ch.	A_2B	M	$Rh_0hr'+$	(ccDe)		
	P.F.	O	MN	$Rh_0hr'+$	(ccDe)		
112	Mo.	B	N	$Rh_1hr'+$	(CcDe)	MN: homozygous N in Ch.; homozygous M in P.F.	1
	Ch.	B	N	rh hr′+	(ccde)		
	P.F.	B	M	$Rh_0hr'+$	(ccDe)		
122	Mo.	O	M	$Rh_1hr'+$	(CcDe)	MN: homozygous M in Ch. No. 2, homozygous N in P.F.	1 of 3
	Ch.	O	MN	$Rh_2hr'+$	(ccDE)		
	Ch.	O	M	$Rh_1hr'+$	(CcDe)		
	Ch.	O	MN	$Rh_1Rh_2hr'+$	(CcDE)		
	P.F.	O	N	$Rh_2hr'+$	(ccDE)		
128	Mo.	O	M	$Rh_1hr'+$	(CcDe)	ABO: B in Ch.	1
	Ch.	B	M	rh hr′+	(ccde)		
	P.F.	A_1	M	$Rh_2hr'+$	(ccDE)		
147	Mo.	A_1	MN	$Rh_0hr'+$	(ccDe)	Rh: rh″ in Ch.; homozygous hr″ in Mo. and P.F.	1
	Ch.	A_1	M	$Rh_2hr'+$	(ccDE)		
	P.F.	O	MN	$Rh_0hr'+$	(ccDe)		

*Mo. indicates mother; Ch., child; P.F., putative father.

TABLE III. PHENOTYPES OF CASES IN WHICH THIRTY-EIGHT ALLEGED FATHERS WHERE EXCLUDED BY TESTS OF DISPUTED PATERNITY—CONTINUED

Case Number	Person Tested*	Phenotype				Basis of Exclusion of Paternity	Number of Children Involved
156	Mo.	O	N	$Rh_0hr'+$	(ccDe)	Rh: rh″ in Ch. No. 2; homozygous hr″ in Mo. and P.F.	1 of 2
	Ch.	A_1	N	$Rh_0hr'+$	(ccDe)		
	Ch.	O	N	$Rh_2hr'+$	(ccDE)		
	P.F.	A_1	N	rh hr′+	(ccde)		
158	Mo.	A_1	M	$Rh_0hr'+$	(ccDe)	MN: homozygous M in Ch.; homozygous N in P.F.; Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	O	M	$Rh_1hr'+$	(CcDe)		
	P.F.	A_1	N	$Rh_2hr'+$	(ccDE)		
174	Mo.	O	MN	$Rh_0hr'+$	(ccDe)	ABO: O in Ch.; AB in P.F.; Rh: rh″ in Ch.; homozygous hr″ in Mo. and P.F.	1
	Ch.	O	MN	$Rh_2hr'+$	(ccDE)		
	P.F.	A_1B	N	$Rh_1hr'+$	(CcDe)		
183	Mo.	O	MN	$Rh_1hr'+$	(CcDe)	MN: homozygous M in Ch.; homozygous N in P.F.	1
	Ch.	O	M	$Rh_0hr'+$	(ccDe)		
	P.F.	B	N	$Rh_1hr'+$	(CcDe)		
189	Mo.	O	MN	$Rh_2hr'+$	(ccDE)	ABO: A in Ch.	1
	Ch.	A_1	M	$Rh_0hr'+$	(ccDe)		
	P.F.	O	MN	$Rh_1hr'+$	(CcDe)		
197	Mo.	O	MN	$Rh_0hr'+$	(ccDe)	Rh: homozygous hr′ in Ch. and Mo.; homozygous rh′ in P.F.	1
	Ch.	O	MN	$Rh_0hr'+$	(ccDe)		
	P.F.	O	MN	Rh_1hr' neg.	(CCDe)		
198	Mo.	O	N	$Rh_2hr'+$	(ccDE)	Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	O	N	$Rh_1Rh_2hr'+$	(CcDE)		
	P.F.	O	MN	$Rh_2hr'+$	(ccDE)		
213	Mo.	B	M	rh hr′+	(ccde)	ABO: A in Ch.; Rh: homozygous rh′ in P.F. homozygous hr′ in Ch.	1
	Ch.	A	MN	rh hr′+	(ccde)		
	P.F.	O	MN	Rh_1hr' neg.	(CCde)		
214	Mo.	B	M	$Rh_0hr'+$	(ccDe)	ABO: A_2 in Ch.; MN: N in Ch. when both parents are homozygous M.	1
	Ch.	A_2B	MN	$Rh_0hr'+$	(ccDe)		
	P.F.	O	M	$Rh_1hr'+$	(CcDe)		
219	Mo.	A_1	N	$Rh_1hr'+$	(CcDe)	ABO: B in Ch.	1
	Ch.	A_1B	N	$Rh_1hr'+$	(CcDe)		
	P.F.	A_1	MN	$Rh_1hr'+$	(CcDe)		
223	Mo.	O	MN	$Rh_0hr'+$	(ccDe)	ABO: B in Ch.	1
	Ch.	B	N	$Rh_1hr'+$	(CcDe)		
	P.F.	A_1	MN	$Rh_1hr'+$	(CcDe)		
228	Mo.	O	MN	$Rh_2hr'+$	(ccDE)	MN: homozygous N in Ch.; homozygous M in P.F.	1
	Ch.	O	N	$Rh_2hr'+$	(ccDE)		
	P.F.	O	M	$Rh_1Rh_2hr'+$	(CcDE)		
230	Mo.	O	M	$Rh_0hr'+$	(ccDe)	MN: homozygous M in twin Ch.; homozygous N in P.F.	2
	Ch.	O	M	$Rh_0hr'+$	(ccDe)		
	Ch.	O	M	$Rh_0hr'+$	(ccDe)		
	P.F.	O	N	$Rh_2hr'+$	(ccDE)		
242	Mo.	O	M	$Rh_0hr'+$	(ccDe)	MN: N in Ch.; homozygous M in Mo. and P.F.	1
	Ch.	O	MN	$Rh_0hr'+$	(ccDe)		
	P.F.	A_1	M	$Rh_0hr'+$	(ccDe)		
243	Mo.	O	M	$Rh_0hr'+$	(ccDe)	ABO: A in Ch.; Rh: rh′ in Ch.; homozygous hr′ in Mo. and P.F.	1
	Ch.	A_1	M	$Rh_1hr'+$	(CcDe)		
	P.F.	O	MN	$Rh_0hr'+$	(ccDe)		
245	Mo.	A_1	M	$Rh_1hr'+$	(CcDe)	ABO: B in Ch.; MN: N in Ch.; homozygous M in Mo. and P.F.	1
	Ch.	A_1B	MN	rh hr′+	(ccde)		
	P.F.	A_1	M	$Rh_1hr'+$	(CcDe)		

*Mo. indicates mother; Ch., child; P.F., putative father.

nity is only about 50 per cent when the above-mentioned three blood group systems are employed. Sussman and Schatkin[9] recently reported a slightly lower rate of exclusion in a group of seventy-two men who, for a variety of reasons, failed to deny paternity. In 13 per cent of these cases, the putative fathers also were shown to be genetically incapable of being the natural fathers of the children tested.

Among the cases included here were two unusual specimens reported elsewhere in detail.[6,8] One was an example of Group A blood weaker than A_2 found in a mother and her child. The other was an example of a rare and irregular antibody, anti-N, found in the serum of one of the controls.

Through careful application of well-founded serologic and genetic principles, pathologists and serologists have much to offer in the impartial solution of perplexing problems of proceedings in disputed paternity. Not the least important benefit accrues to the Judiciary by supplying factual scientific evidence upon which accurate decisions at law may be based. This procedure protects a significant proportion of falsely accused men from the economic responsibility of supporting children who are not their own. Pathologists

have, in this way, a solemn obligation to fulfill. One must, however, concur with the oft-repeated caution[4,5,7,11,12] that these tests should be done only by persons thoroughly acquainted with the genetic principles of the inheritance of blood groups, who are widely experienced and completely familiar with the technical problems of blood grouping methods. The courts will welcome conscientious assistance in the discriminate selection of personnel qualified to perform these techniques.

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Grants for GP Residencies

Scholarships of $1,000 were awarded to twenty young physicians to help defray the cost of general practice residencies due to start in July. The awards, from a fund established by Mead Johnson & Co., Evansville, Ind., were presented by the American Academy of General Practice at its 12th annual Scientific Assembly in April.

Two other $1,000 awards, sponsored annually by Ross Laboratories, Columbus, Ohio, for the most significant scientific articles published during the year in *GP*, the Academy's monthly magazine, were given to Drs. James C. Breneman of Galesburg, Mich., and Jack Curry Redman of Albuquerque, N. M. Dr. Breneman had written "Allergic Cystitis: The Cause of Nocturnal Enuresis" and Dr. Redman "A Proposed Method for Prevention of Pulmonary Hyaline Membrane."

The Mead Johnson award winners, for professional aptitude, are:

Drs. Richard D. Benjamin, St. Louis; Chandler S. Bethel, Wichita, Kan.; Watson A. Bowes, Denver; Edward S. Bush, Canton, Ohio; Harry B. Chappell, West Monroe, La.; Joe T. Diffee, Little Rock, Ark.; Richard L. Dobbins, Washington Court House, Ohio; Robert H. Finley, Belleville, Mich.; Donald J. Flaster, Hempstead, N. Y.; Roy L. Gregory, Transylvania, La.

Also: Drs. Ward B. Hurlburt, Salt Lake City; Charles A. Keller, Jr., New Orleans; Gerard P. Lukaszewicz, Athens, Ga.; Robert B. Monroe, Sioux Falls, S. D.; John B. Myers, Richmond, Va.; John R. Schafer, Sacramento, Calif.; Oren R. Smith, Jr., Sanford, Fla.; Charles H. Stinnett, Horatio, Ark.; John A. Wagner, Tucson, Ariz.; and William S. Warr, Opelika, Ala.—*Scope*, April 16, 1960.

General Anesthesia and the Vulnerable Brain

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THE CONQUEST of pain has been one of the major objectives of medicine throughout the ages. In the past as in the present, the discomforts of internal disease have come to be accepted with more-or-less equanimity, but those incident to acute surgical problems much less so. This is particularly true of the pain necessary to the performance of any surgical procedure. In ancient times, the peoples of the various cultures and civilizations often had recourse to certain plant products to assuage the pain of such crude surgical procedures as they were able to perform. It is well known that operative measures for the relief of fractures and dislocations, of puncture wounds, and depressed cranial fractures, have been quite ably performed from prehistoric times. But what of the means by which the pain attendant upon the performance of such operations was alleviated?

From what has been learned, it is recognized that at least two (possibly three) approaches to the problem have been made. These efforts have proved to be directed, somewhat empirically, toward a depression of the pain centers of the brain.* Perhaps the most uniform and most common of these methods has been the administration of some analgesic potion by mouth. It is not known how long opium has been used in China and the Far East, but this must date from early historic times. One also reads of Indian hemp, oddly enough, first being used by the Chinese, then by the natives of India. It was also utilized in a modified form, *bashish*, by the early as well as more modern Egyptians. In Greece and Rome, an extract of mandrake was used, perhaps less effectively, in the relief of war wounds and their surgical therapy.

Another ingeneous method for the relief of pain in minor surgical procedures was the production of cerebral anemia until the patient lost consciousness. In the Near East, well into historical times, the surgeon's assistant compressed the carotid arteries of young men about to be circumcised until they lapsed into transitory unconsciousness. In the short interval before consciousness was regained, the operation was performed.

Whether frank asphyxiation by inhalation, such as produced by breathing fumes of burning charcoal, was used for relief of surgical pain is unknown. It is reported that those who suffered from the pains of headache and toothache did inhale these fumes, apparently somewhat successfully, in an effort to secure analgesia.

It is indeed remarkable how recent such crude measures have been used in lieu of anesthetics. In the pioneer days of the West, setting a bone or extracting of a bullet called for a simple anesthetic, one readily available at any nearby saloon. It was up to the patient to administer the agent to himself in as large a dose as he could tolerate. Since, as we have more recently learned, alcohol acts in the brain much as any other narcotic, the physiology of pioneer anesthesiology appears to be basically sound.

But with the passage of time, the simpler anesthetic agents have given way to ones chemically more complex. And the complicated apparatus used by the pharmaceutical houses to manufacture the product is coming to be matched by other intricate machines to administer it. Finally, the simple wits and methods able to administer the anesthetic agent of a century ago have been replaced by the greater wisdom and judgment of the modern anesthesiologists.

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Presented at the 94th Annual Session of the Michigan State Medical Society, Grand Rapids, September 29-October 2, 1959.

*It has also been presumed that in prehistoric times lessened sensitiveness to pain was even produced mechanically, but this theory has not been well documented.

THE AUTHOR
Cyril B. Courville, M.D.

One principle remains unchanged. The successful general anesthetic still depends upon its narcotic influence on the pain centers of the brain. The great improvement in the effect of modern agents, insofar as both the patient and the anesthesiologist are concerned, has been achieved only with greater potencies for evil in the form of cerebral complications. This seems to be the price paid for the advantage of the higher ethers over alcohol. Or, as Waters[8] has so well stated, a certain toll is demanded for the relief of the necessary pains of surgery which is somehow out of proportion to the advantage gained.

Physiologic Action of General Anesthesia

For the present, we may put aside the fine-spun philosophies concerned with the mode of action of general anesthetic agents. It matters not whether the theory of Meyer-Overton is any more correct than that of Verworn, or that the adsorption theory of Traube-Lillie-Warburg is any nearer the true physiologic status than the cell-permeability concept of Höber-Lillie-Winterstein. It is reasonably certain that the narcotic action of the various general anesthetic agents is exerted directly on the cellular elements of the brain. For purposes of anesthesia, the nerve cells with which we are primarily concerned are those located in the sensory pathway (especially in the thalamus and sensory cortex) and the center of consciousness in the upper brain stem.

There is also evidence to suggest that narcotic action of general anesthetic agents is achieved, at least in part, by interfering with cellular oxidation (hypoxia).** If this be so, then modern general anesthesia with most agents is accomplished by a partial continuous hypoxia. This state of lowered oxygen tension has definite limits—narrower in the case of nitrous oxide, wider in the case of pentothal and the several ethers. But these too-simple concepts imply that it is the brain that is primarily involved in the production of anesthesia, and here we must expect to find any evidence of physical damage in case of complications. Beecher's[1] statement points up this truism: *Cerebral anoxia is still the greatest danger in anesthesia.*

**Shall it be *hyp-* or *an-*? Wiggers (1941) suggests that the term *hypoxia* should be limited to transitory and reversible clinical phenomena of oxygen want, while *anoxia* be utilized to describe severe irreversible changes in the brain. The present writer may be forgiven, therefore, if he frequently resorts to the term *cerebral anoxia* to describe those fatal alterations in the brain resulting from severe reductions in oxygen supply. By the time the brain specimen reaches his laboratory, the *irreversible* character of the cerebral lesions is no longer open to argument.

Predisposing Factors in Hypoxia and Anoxia

It has now been almost thirty years that the present writer has been a "camp follower" of the science of anesthesiology. To some in this esteemed branch of the medical sciences, he has been a sort of professional "hair shirt," because he has occasionally pointed out certain inherent dangers of serious and irreversible changes in the nervous tissues as a complication of general anesthesia.† The very fact of his close association with the problems of anesthetic complications has made apparent certain factors which favor the occurrence of cerebral damage. These predisposing factors may be briefly stated as follows:

1. *Racial Predisposition.*—In the writer's experience, Negroes seem to be more prone than Caucasians to develop anoxic episodes under general anesthesia. This may be due in part to the difficulty by the anesthesiologist to note any tendency to cyanosis.

2. *Familial Predisposition.*—One patient known to the writer developed psychotic symptoms after repeated daily administrations of nitrous oxide anesthesia for extensive dental work. It was subsequently learned that her entire family developed "altitude sickness" at relatively low altitudes (about a mile high in the Rocky Mountains), suggesting a predisposition to an hypoxia.

3. *Previous or Existing Nervous Disorders.*—The superimposition of even a mild hypoxic state on the nervous tissues predisposed by pre-existing functional or structural disorders may result in irreparable damage to the brain.

4. *Pulmonary or Cardiac Diseases.*—Structural changes in either of these organs concerned primarily and vitally in adequate circulation or oxygenation of the blood may result in an acute fatality under a mild hypoxic episode incident to general anesthesia.

5. *Pre-anesthetic Medication.*—In the present writer's early experience with serious anoxic complication of nitrous oxide anesthesia, the multiplicity of pre-anesthetic sedative drugs seemed to favor such episodes.

6. *Alcohol.*—In occasional cases, chronic alcohol-

†After his monograph (Untoward Effects of Nitrous Oxide Anesthesia, 1939) appeared, an English anesthetist excoriated the present writer in a blistering review for casting aspersions on this, his favorite anesthetic agent. He had literally given thousands of N_2O anesthetics without a single complication! In reply, the writer was constrained to say that the only purpose of this endeavor was "to call sinners, not the righteous, to repentance."

ism, even in the form of moderate daily indulgence, or a single pre-anesthetic ingestion, seems to predispose to an acute anoxic episode under general (especially nitrous oxide) anesthesia.

7. *Hemorrhage.*—Severe hemorrhage, either before or during the operation, has also favored the occurrence of irreversible brain damage. This is due to the fact that an anoxic anoxia is superimposed upon an anemic anoxia.

By analyzing these various predisposing factors, it would appear that most of them result from just this situation, the adding of one form of anoxia upon a second one incident to general anesthesia. The practical lesson from these observations is that a pre-anesthetic investigation as to the possible pre-existence of one of these factors would be excellent prophylaxis in the prevention of these tragic accidents.

Pathological Physiology of the Anoxic State

From this rather simple deduction comes another principle which seems to be rather fundamental: *the more simple the measure to reduce the susceptibility of the pain centers to the noxious stimuli coming from the operative site, the less likely it will be that the vital centers will suffer unduly from a depression of function.* This is made clear from an understanding of the physiology of hypoxia (or anoxia). The writer has repeatedly pointed out that the end result of hypoxia is more or less identical regardless of the means by which it is produced (Courville[3]). Anything that lowers oxygen tension in the blood stream (mechanical obstruction of air passages, diseases of the lungs, or interference with transportation of oxygen by cardiac failure) commonly designated as *anoxic anoxia,* a slowing down of the blood current which lessens the amount of oxygen given off to the nerve cells of the brain *(stagnant anoxia),* a lessened ability to carry oxygen by reduction of red blood cells *(anemic anoxia),* or finally any process which interferes with utilization of oxygen by the nerve cells *(histiotoxic anoxia),* can produce the characteristic structural and cellular changes in the cerebral hemispheres.§

The different agents used in general anesthesia undoubtedly produce different degrees of hypoxia and in different manners. It now seems clear that nitrous oxide produces essentially an anoxic form largely by replacement of the normal oxygen of the blood stream by this gas. Only a minimal degree of direct narcosis of the nerve cell takes place under anesthesia by this agent. On the other hand, the ethers seem to act largely through their narcotic action on the nervous elements. This is also true of the pre-anesthetic drugs.

The safest general anesthetic in terms of their narcotic effects is one which lowers the susceptibility of the pain centers (especially the thalamus) to the bombardment of pain stimuli coming from the operative site without depressing the triad of vital centers of respiration, of cardiac action, and of vasomotor activity. In fact, general anesthesia is made possible by the fact that the pain centers are considerably more sensitive to the narcotic action of these agents than are the vital centers. But, in the name of safety, these vital centers cannot be ignored for they, too, are made up of nerve cells, quite susceptible to narcosis.

The present writer finds it helpful to think of these centers as having multiple facets by which they may be influenced. Sedative drugs act upon one facet, alcohol acts upon another facet, general anesthetic agents upon another, and so forth. The different variety of hypoxic disorders likewise act in their own manner upon these centers. These centers can maintain their normal function remarkably well in spite of the depressive influences of ordinary anesthesia, even if two or more other influences are present. But as the multiplicity of adversive influences accumulate, the danger of suppression of function increases. The writer has been impressed with the multiplicity and/or excessive dosage of pre-anesthetic drugs or anesthetic agents in patients who suddenly suffer from collapse of these centers. This is also true of patients predisposed to hypoxia as pointed out in a previous section. Perchance the patient is apparently getting along without untoward reaction from his pre-anesthetic-anesthetic narcosis, when, due to excessive bleeding, he develops an anemic form of hypoxia. Or as a result of excessive noxious stimuli of surgical origin, a reflex depression of the heart or pulmonary system results. These extra loads may be sufficient to precipitate a cardiorespiratory collapse and a serious or even fatal anoxia result. These less conspicuous factors may thus tip the balance in the wrong direction with tragic outcome. And it is the vulnerable brain that bears the brunt of this disturbed physiology.

Nature and Mechanism of Anoxic Changes in the Brain

If one examines the brain of an individual who has died from an acute anoxial episode, he will note only a marked degree of meningeal congestion, at times studded with patches of subarachnoid hemor-

§The subvariety of histiotoxic anoxia found in cases of insulin shock (Courville, 1957) has been termed by some as *oxyacristic anoxia.* This form is due to the inability of the nerve cell to use oxygen in the absence of adequate amounts of glucose.

rhage and/or petechial hemorrhages in the cerebral white matter. Rarely, larger extravasations of blood may be present.

In this stage, the microscopic alterations likewise are neither specific nor characteristic. The anticipated congestion of the leptomeningeal vessels, as well as those of the cerebral and, to a less extent, cerebellar gray matter, is quite obvious. In the first few hours after the anoxic episode, the pyramidal cells of the superficial laminae of the cerebral cortex appear pyknotic or, in the deeper ones, appear to be undergoing chromatolysis (acute swelling). Within thirty-six hours, however, evidences of focal necrosis begin to appear. This change first consists of an unusual degree of shrinkage of groups of cells with early breakdown (severe nerve cell change) of these elements. Focal necrosis becomes increasingly conspicuous in from forty-two to forty-eight hours and is usually evident, even in routine microscopic preparations. By the end of the third day, these focal areas begin to fuse to form one to three strips of necrosis within the cortical gray ribbon. This characteristic lesion known as laminar necrosis, seems to be a hallmark of cerebral anoxia (Courville[5]). Similar changes in the corpus striatum or globus pallidus form no specific pattern and lead to diffuse necrotic changes in the nuclear mass affected.

As many have believed, these effects are not uniform either as to the portions of the cortical ribbon involved or of the specific cortical areas affected. Why is it that the upper and lower layers of the cerebral cortex appear unchanged and the white matter seems to be normal, as does the thalamus? And why is the cortical damage limited to certain areas, particularly to the motor strip, the frontal lobe, and the visual cortex? These observations clearly indicate that there exists a variable degree of vulnerability of these particular tissues in the cortical zones mentioned. It is now recognized that the intermediate laminae (III to VI) of these areas are the first to be damaged by oxygen want, hence naturally show the more advanced degrees of change after severe anoxic episodes. Some nerve cells are more vulnerable than others and any nerve cell is more vulnerable than the supporting elements or astrocytes.

Not all the cortical areas are equally affected. The motor strip, the dorsolateral frontal cortex, and the visual areas about the calcarine fissure seem to be the most vulnerable in the average case. As for the basal ganglia, the globus pallidus (less often the putamen and caudate nucleus) bears the brunt of the anoxic result. As in the case of the more vulnerable laminae, the areas of greater intrinsic vasculature are the ones predominantly affected by anoxia.

This principle of selective vulnerability explains the symmetrically distributed cortical and ganglionic lesions. It does not explain, however, why there are also found at times irregularly distributed lesions in the form of small focal areas of cortical necrosis or even the larger lobar cortical and subcortical softenings, especially in the dorsolateral parieto-occipital regions.

In his rather prolonged contact with the matter of cerebral anoxic lesions, the present writer has become convinced that anoxemia not only exerts an evil effect on the pulmonary and cardiac centers, but on the vasomotor center as well. A severe anoxic insult is therefore followed by a disordered vasomotor function manifested physiologically by vasospasm of the smaller cerebral arteries. The resulting focal ischemia produces a superimposed circumscribed lesion on a more-or-less widespread change. This vasomotor dysfunction seems to continue for some time after the hypoxic episode has passed and the oxygen tension in the blood has become restored to normal. Thus, this secondary vasomotor factor continues to act for some hours or days, and in the local areas affected, prolongs and intensifies the effects of the original hypoxia. This superimposed vasomotor effect may be sufficient to turn the tide toward irreparable brain damage.

Therapy of the Anoxic State

On contemplating the treatment of an individual who has just experienced a severe episode of cardiorespiratory collapse under general anesthesia with potential brain damage, the first question to arise is, "Can something be done to correct this situation?" It is obvious that the degree of anoxic insult has already predetermined the ultimate outcome of the case and this outcome only time can reveal. The balance for good or evil, however, lies in some instances in the secondary vasomotor instability which continues to act after the cardiac and respiratory centers have resumed a normal function. The answer to this secondary problem seems to be comparable to that implied in the fable of the fox (with his many tricks to outwit the hounds) and the hare (with but one trick). Like the hare, the present writer has but one "trick" to try under these circumstances, one borrowed from his contemporaries (Olsen[7]). And this one effort is directed in an attempt to restore stability of the intracranial vasomotor system. If possible, an electroencephalogram is first taken. If vasomotor dysfunction is still present, the E.E.G. usually shows a

generalized dysrhythmia. If this proves to be the case, then procaine hydrochloride, 1 gm. to a liter of 5 per cent glucose in normal saline, is administered intravenously at a very slow rate, two or even three times a day. It is to be continued as long as any hope of recovery remains, usually suggested by a degree of improvement in the patient's status. In occasional instances of cardiorespiratory failure with hypoxia under general anesthesia, this measure has served to restore cerebral functions. But if the insult has been too severe, one can only accept, with such equanimity as he can muster, the verdict which Fate has already inscribed over against the victim's name. The vulnerable brain has been damaged to a degree incompatible with life.

Summary

The triumph of modern anesthesiology lies in the ability to render surgical diagnostic procedures as well as major operations entirely free of psychic, as well as physical, shock. Its weakness lies in the fact that this goal cannot be achieved without a certain degree of risk of serious, if not fatal, issue. Much of this risk seems to be inherent in the chemical complexity of anesthetic agents; certainly this is true when multiplied in a given case. This situation demands superior training and experience on the part of the one administering the anesthetic, as well as his critical evaluation of the patient to whom the anesthetic is to be given. It also includes his constant attendance at the side of the patient while the patient is under its influence. This includes, furthermore, a preoperative elimination of such factors which predispose to a cardiorespiratory collapse with its necrogenic anoxic consequences. All this is necessary to prevent serious or fatal damage to the vulnerable brain. This is the organ which is not only the seat of somatic pain and mental and emotional distress, but also that which is primarily affected by the anesthetic agent or agents used. Anoxia is still the gravest complication of all general anesthetics, and the ultimate elimination of this tragic evil must be the objective of anesthesia as a science, as well as the goal of every anesthesiologist who serves as its personification.

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Foreign Fellowships

The Association of American Medical Colleges has announced that twenty-eight American medical students have been granted fellowships by the Smith, Klein & French Laboratories.

Two of these winners are from Michigan: (1) John C. Reinstra, senior, Wayne State University College of Medicine, whose parents live in Grand Rapids, received a $1,600 grant to spend twelve weeks at the Sudan United mission, Nigeria, West Africa; (2) Arnold Schuring, senior, University of Michigan Medical School, whose parents also live in Grand Rapids, a grant of $2,441 to permit him and his wife, a registered nurse, to spend eleven weeks at the Takum Christian Hospital, Nigeria, West Africa.

These two students will act as good will ambassadors, will help to organize and maintain medical health programs and will gain valuable clinical experience, under their proctors.

Electrophoretic Analysis Of Proteins In Bile

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DOCUMENTATION on bile proteins is scarce. Part of this is due to the fact that the amount of protein present in bile is very low. Furthermore, the high amount of pigment present in bile interferes with the usual methods for determination of protein. For a long time, the presence of protein was labeled "albuminocholie" and this was believed to be a pathological condition resulting from disturbed liver metabolism. Recent studies, however, have attracted a new interest in the presence of protein in bile under various pathological and normal conditions.

It seemed of interest to analyze the protein content of bile since it may prove to play a role in the pathogenesis of gallstones.

These studies also may prove important in relation to liver secretion and thus may aid in the differentiation between humoral and local factors concerning gallstone formation.

Electrophoresis has proven to be a valuable tool in analysis of bile. Separation of different components can be relatively easily achieved. The method remains less useful for quantitative determination of these components. By means of different staining techniques, other substances may be studied in addition to protein. The interrelationship between protein and these substances can thus be studied, at least as far as their behaviour in an electric field is concerned.

Material and Methods

Bile was used from various sources. Bile was collected under sterile conditions from hospitalized patients with bile drainage after cholecystectomy or duct exploration and labeled fistula bile. Pathological gall-bladder bile was obtained by opening the resected gall bladder immediately after operation. Normal gall-bladder bile was obtained in aspirating bile from the gall bladder during laporatomy for diseases not related to the bilary tract. Another method for obtaining bile was transcutaneous aspiration of hepatic bile in preparation for intrahepatic cholangiography. A mixture of blood in the bile specimen was almost unavoidable in this way. In total, four specimens of normal bile, two specimens of hepatic bile, nineteen specimens of fistula bile and eighteen specimens of pathological gall-bladder bile were obtained for examination. Among the latter group, all patients had cholelithiasis, pathological reports of the gall-bladder tissue showed two with minimal changes, fourteen with chronic cholecystitis and two with active cholecystitis. In total, forty-three specimens were obtained from thirty-four different patients.

The specimens were stored in the refrigerator under aseptic conditions, and were used for electrophoresis as soon as possible, usually within forty-eight hours.

When it was necessary, the specimens were concentrated. Bile was placed in a dialysing tube and covered with carboxymethylcellulose powder of high viscosity. Concentration to a high level could be achieved in this way. Usually two to three hours were sufficient to concentrate up to ten times. The concentration necessary to perform an adequate electrophoresis is different from specimen to specimen. Fistula bile usually requires concentration up to ten or fifteen times. Normal gall-bladder bile requires concentration to five times the original volume. Very sticky pathological bile may be processed without concentration.

Some specimens were submitted to dialysis for forty-eight hours against buffer solution before the electrophoresis. When precipitation of mucous material was sought, three drops of 20 per cent acetic acid were added to 1 ml of bile. After standing, the bile was centrifuged and the supernatant submitted to dialysis against buffer solution. During dialysis, a certain amount of pigment and bile acids escaped from the bile.

Electrophoresis was performed in an apparatus of our own design, with horizontal suspension of the paperstrips. A Heathkit variable voltage regulator power supply was used to deliver a current of 5 volt/cm. When five paperstrips were run simulta-

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neously, the intensity reached 4 milliamp. The bile specimens were placed on the polished edge of a glass-plate and dipped at the cathodic side of Whatman I paperstrips; 0.1 to 0.2 ml of bile were applied on each strip. Migration of 7 cm. was usually obtained during a run of four hours under these conditions. Different buffers were compared: the Acetate buffer with pH 1.5, the Veronal buffer with pH 8.6, and the Borate buffer with pH 10. For routine separation, the Veronal buffer was normally used.

After completion of the electrophoresis, the paperstrips were dried in a horizontal position for twenty minutes, at 100° cels. Each of the paperstrips thus obtained from the same specimen of bile was available for staining in a different way so as to produce a pattern which shows different substances and permits comparison of these substances in the same specimen. The following staining procedures were used, virtually without modification, on the dried paperstrips:

Amidoschwartz .....(1)
Azocarmin .....(2)
P.A.S. .....(3)
Diazoreagent .....(4 a)
Toluidine Blue .....(5)
Bromcresol Purple .....(6)
Oil Red O.....(7)
Phosphomolybdic Acid.....(8)

Results

Verschure[4a] has proposed a simple way to describe the location of the separated fractions.

The fraction with the highest electrophoretic motility on the paperstrips is called band 1. Immediately behind this fraction quite often appears a second one with a slightly slower motility, this fraction is labeled band 2. Band 3 has its location behind this band 2. In our results several fractions appear at the location of band 3. Band 4 is the fraction which has no electrophoretic motility and stays on the line of application. Band 4 often has a granular appearance. According to the proposed classification, protein on band 1 is labeled P1, bilirubin in this location is B1, lipid L1 and so for each substance in each location.

Unstained Paperstrip

On the unstained paperstrip, the pigment band is clearly apparent. Most often pigment appears in the form of one single broad band with high motility, B1, leading the other fractions if present. The front end of this band is sharp, the back end has a zone where pigment is present in greater density. A trail of pigment material may be found behind this B1, band extending over B2.

In normal bile, the main pigment band coincides with the location of protein and other components. In pathological bile, the pigment migrates alone without protein. The protein band will be found on P2, behind B1. When a large amount of non-migrating matter is present in bile under the form of a deposit at the starting line, this matter has often a yellowish brown pigment color B4 on the unstained strip.

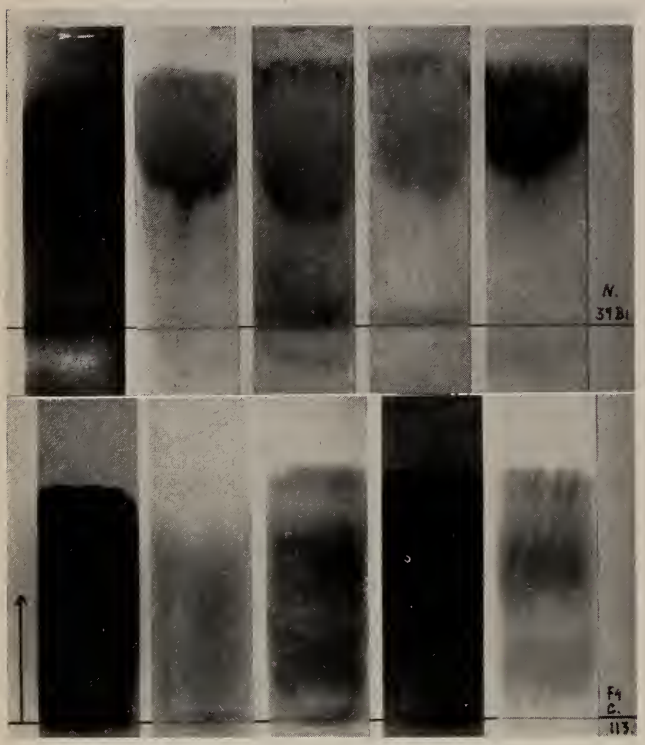
Four times a separation of pigment in two different fractions was encountered. One of these was in normal bile. This pigment separated in a leading band B2 with red-brown color and a slower band B3 with brown color. Both of these fractions coincided with the presence of protein in P2 and P3. The absorption curve of both fractions showed a maximum at 415 mu in pH of 7, 8, 6, and 9. It should be noted that all bilirubin in bile is of the direct reacting variety. Spraying the paperstrips with diazoreagent results in red color of the pigment fraction, on a pale yellow background.

Proteins.—Detections of proteins was achieved by azocarmin stain. This produces a reddish purple band on a pale pink background. Staining amidoschwartz gives a dark blue spot on a lighter blue background but with less contrast. The presence of bilirubin in a protein fraction did not seem to influence the staining capacity of azocarmin for protein matter.

Protein is found in one or more different fractions. Most often the leading fraction is markedly larger and denser than the other fractions with a slower motility. When a solution of bovine albumin is added to bile, this leading fraction will increase in density. Bovine albumin alone in buffer solution will migrate slightly faster than the leading fraction in bile.

In fistula bile, the leading protein band P2 follows the pigment band B1. In addition, two or three smaller distinct protein bands with slower motility P3 are found in pathological bile, a variable amount of protein is present. When the bile specimen is thick the separation in different fractions is incomplete and the protein band may coincide with the pigment band. When the bile is less viscid a pattern similar to that of fistula bile may appear. The non-migrating matter at the line of application (p4) may or may not be stained with azocarmin. In normal bile, less protein is present. The main protein fraction has the same motility as the pigment band (P1 = B1). When pigment separation in two distinct fractions was obtained, each of these would coincide with a protein band P2 and P3.

Mucopolysaccharides. — Mucopolysaccharides were detected with the P.A.S. stain which results in a magenta color in good contrast on a pale pink background. Pigment does not interfere in this stain since it is eluded during the first steps of the staining procedure.



N.B. These illustrations should be read as follows: The starting line is the horizontal line at the bottom of the picture. The direction of the migration is represented by the arrow.

Fig. 1. Normal bile. From left to right: Phosphomolybdic Acid, Azocarmin, P.A.S., Oil Red O, Unstained.

Fig. 2. Pathological bile. From left to right: Amidoschwartz, P.A.S., Bromcresol Purple, Toluidine Blue, Unstained.

Toluidine blue reveals acid mucopolysaccharides as a purple band on a blue background. In addition, in this stain, other mucopolysaccharide fractions, as revealed by the P.A.S. stain may show up as a dark blue band on a blue background; the contrast, however, is poor, and this blue is quite different from the purple obtained with heparin on a paperstrip. Bromcresol purple results in a blue spot for acid mucopolysaccharides on a pale yellow background. The blue tends to fade.

On most of the specimens P.A.S. stain reveals one or more bands apart from the proteins. As a rule, P.A.S. positive material was located in position 3, immediately and distinctly separated from P2. Overlapping of M3 and P2 only occurred when the separation was insufficient and resulted in an all-over blurred electroporesis diagram. In fistula bile, two or three bands in M3 coincided with similar P3 bands. M2, when present, was very faint. Pathological bile usually has one large M3 band. M4 was marked, especially when the bile specimen was very sticky.

In normal bile, M1 was found, this band coincided with the front-line of B1. Toludine stain only was positive for material present in location 4. Mucoprotein fractions in M3 appeared dark blue.

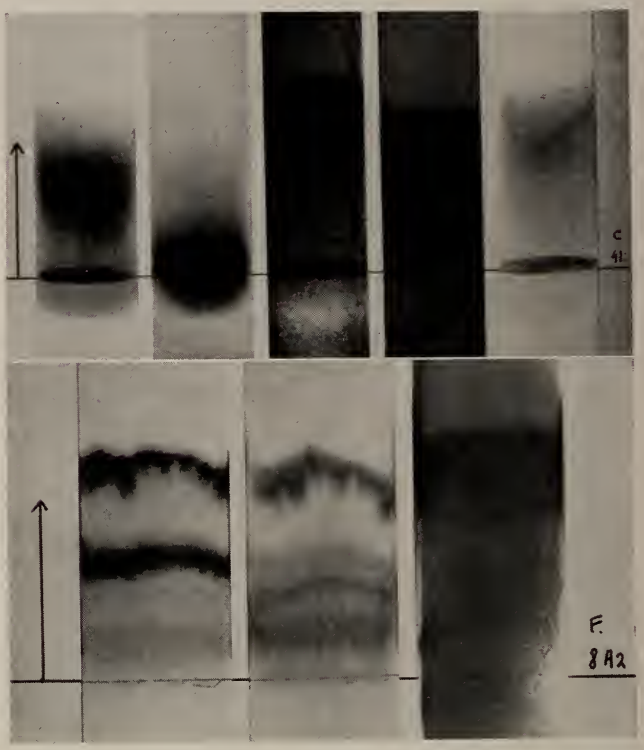


Fig. 3. Pathological bile. From left to right: Azocarmin, P.A.S., Phosphmolybdic Acid, Oil Red O, Unstained.

Fig. 4. Fistula bile. From left to right: Azocarmin, P.A.S., Phosphomolybdic Acid. The dark leading band in the first two paper strips is only pigment.

Bromcresol purple gave a positive spot which was almost identical with P.A.S. stain. In some pathological specimens, however, bromcresol purple was not positive for a markedly positive M4 band when at the same time toluidine blue also remained negative. In other specimens, both toluidine blue and bromcresol purple were positive with a positive M4.

One specimen of normal bile showed a blurred P.A.S. stain. Precipitation of mucous material with acetic acid and subsequent dialysis resulted in four different M bands: M1, M2 and two bands in M3. Precipitation with acetic acid in pathological bile resulted in diminishing the intensity of the M3 band.

The use of buffer solutions of different pH had little effect on separation of a large M3 band into more fractions.

Lipids.—Staining with oil red O results in a positive red band for lipids on a pink background. Lipids were only found on L1 in normal bile. The amount present however was small as compared with the bands of higher density published by others.

Bile Salts.—Bile salts can be revealed by a spray of Phosphomolybdic acid solution. This stain probably is less specific in a mixture of different solutes as bile. A dark bluegreen band in contrast to a green background was considered as suggestive evidence for the presence of bile salts. The color of bilirubin interferes with the color resulting from this stain.

Indication of the presence of bile salts was found in most specimens at the BS1 location. This location is followed almost always by a blurred trail with decreasing intensity and decreasing blue component over BS 2 and part of BS 3. In fistula bile several specimens showed a marked single positive band in BS 3. Two specimens of fistula bile and two of pathological bile showed a positive BS 4 band.

Patterns.—Specimens of normal gall-bladder bile (Fig. 1) show all the components to be present in one location: P1 L1 BS 1 M 1, a single band M3 may be present also. This pattern is characteristic for normal gall-bladder bile. One specimen of pathological gall-bladder bile from a patient with cholelithiasis and whose gall bladder had only minimal pathological changes showed a same bile pattern. The importance of this finding will be discussed later.

One specimen of bile considered to be normal, taken from a normal gall bladder during a portocaval shunt for relief of portal hypertension showed in contrast a different pattern, with BS1, and L1, P2, P3, B2, B3 M2 M3, and relative high amounts of protein present.

Fistula bile usually shows the following band (Fig. 4), a marked band in P2, less P3, a marked band in M3 and BS3.

The composition of pathological bile (Figs. 2 and 3) has wide variations. The only striking feature present in most specimens is a deposit on the line of application under form of band 4, positive for mucoprotein, sometimes for bile salts and pigments. The amount of mucoprotein and protein present, as judged from the intensity of staining, is variable also.

In most specimens of fistula bile and pathological bile, it was noted that pigment migrates apart from protein, which apparently means that bilirubin does not occur in association with protein in these bile specimens.

Discussion

Verschure[4a,4b] first reported the occurrence of several substances of normal bile with the same electro-

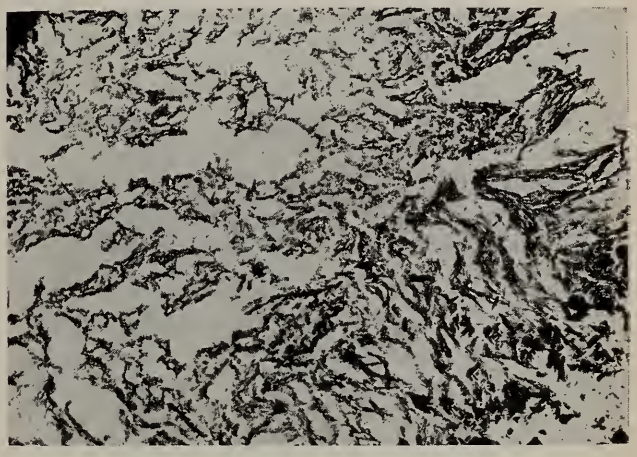


Fig. 5. Photomicrograph of defatted mixed gallstone after P.A.S. staining.

phoretic motility. This is not so in pathological bile specimens or in fistula bile. Later Juniper[10] obtained similar results and our results again confirm this finding. This finding suggested to the previous mentioned authors the existence of a complex in normal bile which plays a role in the solubilisation of cholesterol. Analysis of the complex showed it to be composed of 0.57 mol. bilirubin, 3.4 mol. cholesterol; 39.8 mol. desoxycholic acid and 7.2 mol. lecithin as mean values. The seat of formation of this complex is the gall bladder but part of it probably is formed in the bile ducts.

Our interest has been mainly directed towards the mucoprotein content of bile. Some question has arisen whether these substances might exert a possible role in the pathogenesis of gallstones.

When gallstones are defatted and sectioned, microscopic examination reveals a framework which is deeply impregnated with pigment. Under certain circumstances, a solution of acid alcohol and chloroform will elude this pigment. The remaining framework then becomes positive with P.A.S. and Alice blue staining (Fig. 5). Previously this substance had been considered as being composed of protein, fibrogen or mucous material. This mucous material also serves a binding substance for conglomeration of crystals or microspherliths, as may be observed microscopically in

bile residue. It was our presumption that this substance might possibly play a role in gallstone formation in orienting the crystal arrangement during the transition of the gelphase into crystalloid phase of gallstone substance.

Little information is available on the mucoprotein content of bile. Logan[13] concluded that protein in bile is mainly composed of glycoprotein. The nature of bile mucin is still poorly known. Duodenal drainage studies[9] showed bile glycoprotein to be elevated above normal levels in the presence of inflammation of the bile ducts. In cirrhosis of the liver the glycoprotein level was low.

Analysis of bile by means of electrophoresis has practically resulted in the separation of the mucoprotein substances. Some evidence is presented by our study for the presence of mucin, acid and neutral mucopolysaccharides. The identification of these substances has to be further pursued.

The amount present in pathological bile and their location upon electrophoretic migration is variable.

The use of buffer solutions with different pH values has not resulted in better separation of the fractions. No relation between the degree of inflammation of the gall-bladder wall and the presence or behaviour of mucopolysaccharides was seen.

Analysis of bile with respect to gallstone formation usually is intended to discover differences between normal bile and bile from cholelithiasis gall bladders. Such possible differences, however, do not necessarily disclose important factors in the pathogenesis of gallstones. It may be that the result of the analysis of pathological bile only shows a residual effect after cholelithiasis has been formed. This residual effect on bile may be due as well to gall-bladder wall irritation as to bacterial inflammation. Anyway, the changes in bile during the period that gallstones are in the process of being formed, remain undetected. The different mucopolysaccharides which we have shown to be present in bile need further investigation. The site of formation and their occurrence of normal bile will be analyzed.

Other authors[11,12] have reported on more fractions of protein being present in bile. Some of these apparently behaved like the different serum globulins. Admixture of serum in these cases could not be ruled out entirely.

Summary

Evidence is presented for occurrence of different mucopolysaccharide fractions in bile. Further identification of these fractions is under study. The possible relation of these substances to gallstone formation is briefly discussed.

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Cretinism

An important research project assisted with Phoenix funds is the study of cretinism. Cretinism is a congenital deformity marked by mental and physical retardation. Physicians pioneering in thyroid research have made major discoveries which point the way to the prevention of this tragic condition by treatment of mothers during pregnancy.

Common Disorders of the Genito-Urinary Tract in Children

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IN DISCUSSING some common disorders of the urinary tract in children, the author feels that general medical men would like to review the newer methods of diagnosis and treatment. With this in mind, the more common genito-urinary diseases are discussed in detail. Unfortunately, a few common disorders are genito-urinary anomalies. These are trying problems for the urologist even with the help of the pediatrician. Some recent information regarding this subject will be reviewed.

The first examination of the young child by the general medical man or the pediatrician is usually quite adequate and discloses the apparent physical handicaps of the new patient. This is particularly true of the newborn and infant. Later, however, as often is the case, what was thought to be a variation of the normal turns out to be some problem for referral to a member of one of the various specialties.

In the field of urology, it is wise to begin the examination with this in mind and proceed according to a definite plan. The urologist should first carefully examine the genitalia, then obtain the urine and study the fresh specimen under the microscope. Following this, he should carry out the usual physical examination including some type of kidney function tests. Intravenous urograms are then in order. Instrumental examinations are carried out in the hospital by trained specialists and personnel.

Examination of the Genitalia

Inspection of the genitalia in both sexes is very important and often the preliminary examination is too hasty. Let us consider briefly some of the physical handicaps that may be found in this area.

In the male child, the penis often appears quite normal except that it may curve downward and be surrounded by more of the scrotum than is normal. However, upon more careful examination, an open meatus is seen at the end of the penis, although the prepuce may be more retracted ventrally than is usual. At first thought, this might appear to be a variation from the norm. Careful inspection and adequate vision of the voiding act will often reveal a "glanular hypospadias" (Fig. 1). This anomaly is important, since frequently what was at first thought to be an adequate meatus is found to be a false urethra, as demonstrated by sounds.

Fig. 1. Glanular hypospadias. Using sharp pointed scissor, the false urethra is united with the voiding urethra insuring a good urinary outlet.

A tiny, abnormal meatus is then discovered by using very small probes. In fact, the author usually uses a medium-sized straight sewing needle reversed (eye-end as a probing instrument) to demonstrate the urethra through which the patient actually voids. The trouble here is that the child frequently has an inadequate urinary outlet consisting of a tiny hidden urethral meatus associated with the voiding urethra. The apparent large meatus usually overshadows what is mere-

THE AUTHOR
Tracy O. Powell, M.D.

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ly a dimple associated with the second small meatus which is connected to the open urethra.

Correction of glanular hypospadias is easy once the true nature of the anomaly is discovered. Generally,

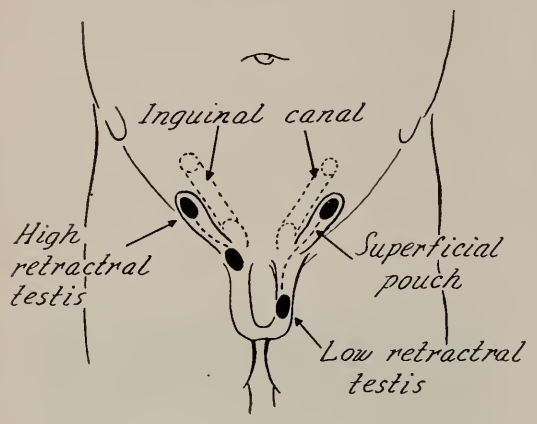

Fig. 2. Normal variations of anatomical positions of testes in children.

however, it is wise to have a more thorough urologic examination of the whole urinary tract, since it has been found that one anomaly may often be associated with another. The treatment of glanular hypospadias does not require multiple operations; the two urethras should be united completely from the bottom or proximal end of the false urethra to the voiding urethra, always making sure that the final meatus is adequate and that the entire urethra is well opened. This may be demonstrated by passing a suitable sound into the bladder. Following this procedure, the long hood-like prepuce should be removed, and any abnormal attachment to the scrotum should be severed, allowing the penis to straighten out and the scrotum to fall back into a more normal anatomical position.

Sometimes glanular hypospadias is recognized in the young child upon first examination, and, as is often the case in my community, too much stress may be placed upon it. The family may be told that the condition will require numerous operations, making it difficult for the parents to accept the consulting urologist's opinion that circumcision is in order and further surgical procedures, other than the simple one mentioned above, are unnecessary. An anterior sound should be passed once or twice postoperatively to insure that the new terminal urethra remains open.

It is not the purpose of this paper to discuss the more complicated cases of hypospadias which do require at least two and often three surgical procedures to effect a correction. I am happy to state in passing, however, that we now have a number of very satisfactory techniques for the correction of these anomalies.

Undescended Testes

In examining the young male child, it is well to keep in mind the anatomical possibilities of the testes in their descent. Very often what appears to be an undescended testicle is merely a high or low retractile testis. Generally, it is safe to consider as normal any situation in which the testis may be pulled down in the high scrotal position. If the original examination reveals a hernia associated with a testis apparently in abnormally high position, it is usually wise to inform the parents that ultimate surgery for the correction of these abnormalities will be necessary. However, in the absence of any other obvious surgical problem associated with the testes when these organs are palpated in the inguinal area, it is wise to follow the very young male child for some time before alarming the parents to a situation that perhaps falls within the category of normal according to the diagram illustrated (Fig. 2).

The parents are often advised by various physicians that most of these physical defects may be corrected by giving large doses of male sex hormones. Although it would appear that there is some justification in certain cases of undescended testes, I believe in general it is wise to refrain from injecting large doses of strong androgenic material in these young subjects. The author many years ago chose the subject of the gonadotropic hormone when he wrote his thesis in the Graduate School of the University of California in the Department of Experimental Biology. Time does not permit me to give the details of my experimental findings; however, I wish to refer to one of my early clinical publications on this subject in which I reported precocious hypertrophy of the prostate in a child in whom large doses of male sex hormone were given over a long period of time. Several years ago, in reviewing the world literature on this subject for Frank Hinman, Sr., for his chapter in *Oxford Surgery*, it was found that there were very few cases of actual undescended testes proven to have been corrected by this procedure. In most instances it was obvious that at no time did a true surgical type of lesion exist.

External Genitalia of the Female Child

In the female child, it is often difficult to see the urinary meatus. In some instances, abnormal adhesions of the labia may be found which can be easily separated without disturbing the hymen, following which the meatus and occasionally a pathologic lesion can be uncovered. In those young patients with recurrent infections, I often pass a sound through the urethra to insure that there are no film-like obstructions predisposing to persistent infection. Often what is interpreted as an obstruction is revealed and the infection

is brought under control. In rare cases in babies, there may be found what at first appears to be a cystocele, but which upon more careful examination will prove to be a prolapsed fold of bladder mucosa, an everted urethral mucosa, or even an ureterocele which has passed completely through the urethra to the outside (Fig. 3). These lesions are obstructive and require surgical correction. One should keep in mind in such cases the possibility of a neuromuscular disturbance of the bladder neck and occasionally atony of the vesical sphincter. It is, of course, essential that a complete urological investigation be carried out.

Urinalysis

Following inspection and careful scrutiny of the genitalia, the next plan of examination is thorough urinalysis. You are, of course, familiar with the various methods of obtaining the urine. Catheterized specimens in the young female, particularly with a history of undisclosed cause of fever, are routinely obtained by the urologist. The second glass test by the male is, of course, customary. In the case of the female who shows no symptoms, however, we usually use the so-called "clean catch" method of voided specimen.

Infections

It may appear elementary to suggest that to treat infections of the urinary tract, the physician should not only own a microscope, but be able to use it intelligently. I was surprised to learn recently that a large number of physicians who treat children send out all urine specimens to various laboratories. The physician, in his office, should look at the specimens himself, while the little patient is there, and prescribe as accurately as possible without running cultures and sensitivity tests. Here again, it is rather surprising how few cultures are necessary, if all information that may be obtained by proper use of the microscope is used intelligently. So often, the general medical man will give penicillin for the great group of Gram-negative rods that are the usual offenders in infected urine. Generally speaking, it is rare that penicillin is necessary or advisable. Streptomycin may often be used in combination with the simpler sulfa drugs. When these do not appear to affect the organisms, the tetracyclines or nitrofurantoin (Furadantin®) should then be used. Obviously, if the offending organisms are coci or a mixed type of infection, one would alter the over-all approach.

Infections Associated with Minimal Obstructions

It must always be emphasized when discussing treatment of infections that it is unwise to forego some type of urologic survey before going to the expense and trouble of cultures and expensive medications. Often, an obstructive lesion, even though minimal, will be found, which acts as the predisposing cause of infection. Once the obstruction is relieved, the infection will clear itself or at least will be easily eradicated. In the female child, with a normal intravenous urogram, but with repeated bouts of infection, one should dilate the urethra with suitable sounds, leaving some antiseptic, such as 1:30,000 zephiran, in the bladder. We have had a large number of children in this category who rather quickly became clear of infection and remained so following urethral dilatations, whereas previously they had had chronic recurring infection. Some male children will require urethral meatotomy.

Fig. 3. Illustrating ureterocele extruding through the urethra along with considerable portion of everted bladder.

Infection Associated with Lesions Confirmed by Radiologic Methods

After repeated observations over a number of years, the author has come to the conclusion that many of the definite bladder-neck obstructions with ureteral regurgitation associated with chronic infection will be cleared by repeated urethral dilatation and persistent, energetic treatment of the infection. I feel that there is a great deal too much meddlesome surgery in some of the milder cases of obstructive lesions. In reviewing the cases that had undergone surgery at one large hospital, the author was impressed by a large group of patients that had undergone ureteral neocystostomy. One young surgeon had performed more than 100 such operations. I had the opportunity to review postoperative films in many of these cases one to two years later after finding evidence of accentuation of the obstruction rather than improvement. Often rather large

operative procedures were performed on patients for simple ureteral regurgitation that followed delayed cystograms. Many of the patients were without any evidence of hydronephrosis and, surprisingly enough, often free of infection. Obviously some complaint brought the child into the clinic; however, in many instances there were no complaints other than perhaps one episode of infection. I wish to emphasize that my discussion of this type of case is to illustrate the value of conservative measures, such as simply dilating the urethra at intervals (usually once per week) until a normal size for the child's age is reached. This should be carried out along with energetic and intelligent methods to clear the urine of the infection. In this instance, patience is not only the friend of man, as the Chinese proverb goes, but the friend of children also.

TABLE I. RELATIVE SENSITIVITY OF URINARY MICRO-ORGANISMS TO VARIOUS URINARY ANTISEPTICS DERIVED FROM ALL CULTURED MATERIAL IN SERIES

E. Coli
1. Furadantin
2. Tetracycline
3. Oxytetracycline
4. Polymyxin B, Dehydrostreptomycin

Proteus
1. Furadantin
2. Tetracycline

Alpha-Enterococcus
1. Furadantin

Paracolon
1. Chloramphenicol, Polymyxin B

Alcaligenes
1. Oxytetracycline, Chloramphenicol, Tetracycline
2. Polymyxin B, Chlortetracycline, Dehydrostreptomycin

Hemo-Staph. Aureus
1. Erythromycin
2. Tetracycline, Oxytetracycline
3. Penicillin, Chlortetracycline, Magnamycin

A. Aerogenes
1. Oxytetracycline
2. Dehydrostreptomycin, Polymyxin B, Tetracycline

Pseudomonas A.
1. Polymyxin B
2. Tetracycline, Oxytetracycline
3. Dehydrostreptomycin

Beta-Enterococcus
1. Furadantin, Erythromycin
2. Oxytetracycline, Tetracycline
3. Chlorotetracycline, Penicillin

Alpha-Streptococcus
1. Oxytetracycline
2. Furadantin, Chlorotetracycline, Dehydrostreptomycin, Tetracycline, Erythromycin

Salmonella
1. Oxytetracycline, Tetracycline
2. Chloramphenicol
3. Furadantin

Beta-Streptococcus
1. Tetracycline
2. Oxytetracycline
3. Penicillin, Erythromycin

Culture and Sensitivity Tests in Infections of the Urinary Tract

Recently we carried out a large number of cultures on the urine of children with various types of infection. Sensitivity tests were done, and follow-up on the patients was carried out clinically. Many of these little patients were in my private practice where I had a good opportunity to follow them. In addition, more than 100 cases were studied at the Children's Hospital, Los Angeles. The results of the cultures and the sensitivity tests corresponded well with the clinical observations (Table I). However, several striking observations were made. If the infections did not clear rather soon, it became evident that they were so-called problem cases. Many of these children with recurrent infections were reported by the laboratories during quiescent periods as having clear urine. However, when these urines were studied at times under a microscope at low-powered field, it was noted that there was an occasional small clump of pus cells. In almost every instance, cultures would reveal that the problem organism had persisted in spite of the medication given. Usually the infecting organism was Proteus, Psuedomonas, or Streptococcus faecalis (Table II). Clinically, as well as in the test tube, the drug Furadantin® proved to be the most efficacious in controlling *Proteus* and *Streptococcus faecalis* organisms. This drug is very valuable in urinary prophylaxis, and may be administered over a long period of time. On the other hand, despite apparent sensitivity tests, *Pseudomonas* proved to be the most difficult organism to eradicate, even in the absence of any apparent obstruction. In these cases, we found that combining streptomycin with a drug of the tetracycline group was the most efficacious treatment. However, often polymixin-B and the mandellic acid combinations had to be resorted to in order to clear the urine. Occasionally, a simple dilatation of the urethra apparently caused a clearance of the urine. Another observation made clinically on the group of children under treatment for urinary infections was that the drugs usually worked better when the concentration of the drug in the urine became higher regardless of dose given. For this reason fluids were not pushed on these patients contrary to the usual advice to force fluids.

TABLE II. RELATIVE SENSITIVITY OF URINARY MICRO-ORGANISMS TO VARIOUS URINARY ANTISEPTICS IN PROBLEM CASES

Pseudomonas, A.		1.	Polymyxin B
		2.	Tetracycline, Oxytetracycline
		3.	Dehydrostreptomycin
Strep Fecalis	Alpha-Enterococcus	1.	Furadantin
	Beta-Enterococcus	1.	Furadantin, Erythromycin
		2.	Oxytetracycline, Tetracycline
		3.	Chlorotetracycline, Penicillin
Proteus		1.	Furadantin
		2.	Tetracycline

Follow-Up in Illustrative Problem Cases

In 1943, a young boy was referred to me after he had already been seen by three other urologists, all of whom I respected. The patient's symptoms were rather alarming. He suffered from chronic infection and actually had difficulty voiding. Cystoscopically there was evidence of a contracture of the bladder neck. The upper tract was normal. The urine could be cleared of a Gram-negative rod (coli group) but it would promptly become reinfected. It had been advised that the child have a bladder neck resection. I did not disagree with the advice of these older and more experienced urologists. However, I was advised by the referring family doctor that I should treat the

Fig. 4. Intravenous urogram (1949) showing pyelectasis on left associated with apparent ureteropelvic obstruction.

boy conservatively and see if I could not help him. This I agreed to do. Now sixteen years later, this young man is a well-established business man in our city and has had no trouble in this regard as an adult. The treatment at the time consisted of urethral dilatations which were carried out over a period of approximately one year. Following this, his symptoms disappeared and his urine became clear.

In the upper urinary tract there is a group of minimal ureteral pelvic obstructions that are often operated upon but which when cleared of infection may never require surgery. An illustrative case is that of a young female child (Fig. 4). This child had bouts of infection, persistent albuminuria, and mild ureteropelvic obstruction of the left kidney. Here again, one prominent urologist had advised a plastic procedure upon the affected kidney. In this instance, I had the advantage over the other urologist since I had done albumin tests on the urine from both kidneys and found equal amounts coming from each kidney. When

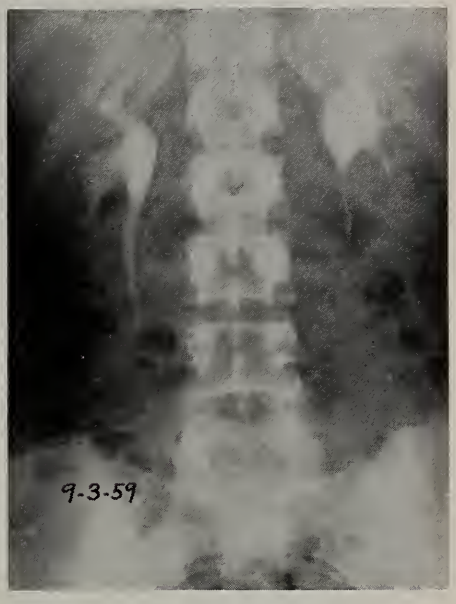

Fig. 5. Excretory urogram on same patient as in Figure 4 ten years later (1959). Note good funneling and normal appearance of pelvis of left kidney. No surgery was performed.

the referring general physician learned this, he carried out tests which proved that the albumin was of the orthostatic type, that is, the urine at night did not contain albumin. However, pressure was made from another source to operate upon the kidney in spite of the fact that by this time the urine had become clear of infection. About this time my good friend, William F. Braasch of the Mayo Clinic, visited our city and was called also into the picture of consultation regarding the pyelograms. Fortunately for me he agreed wholeheartedly on conservatism and no operation was ever carried out. Recently this young lady came into the office and intravenous urograms were carried out (Fig. 5).

Again an appeal is made to delay radical surgery on minimal lesions in children. These should be thoroughly studied and every effort made to clear the infections. Give them time to overcome minimal dysfunction due to mucosal folds, perhaps allergic congestions or conceivable lack of certain neurologic intergrations. Certainly in many instances you will be rewarded by not rushing hastily into various operations. It is true that in some cases it is obvious from the outset that a radical operation is necessary. Even here, however,

conservatism in the type of operation may be advantageous.

An illustrative case of fifteen years ago concerned a young boy with bilateral megalopelves. The rather large renal pelves that are thought to be of the adynamic type are occasionally seen in children. More rarely, an extremely pronounced enlargement of the renal pelvis exists in the absence of any obstruction; caliectasis does not occur in such instances unless the pelvis becomes so enlarged that it exerts pressure on the ureter, thereby obstructing the flow of urine and secondarily producing a true hydronephrosis. At surgery, the megalopelvis is seen to be very rubbery and can be stretched to an enormous size. The blood supply to the pelvis appears to be deficient.

In the case here presented, the kidney was of the horseshoe type (Figs. 6 and 7). On the right side, the true megalopelvis was clearly seen in the presence of excellent renal parenchyma, while the left renal pelvis had become so large that it obstructed the ureter by intra-abdominal pressure and angulation, thereby producing a definite hydronephrosis with only a thin shell of residual renal tissue. The total renal function was normal. The question to be considered was that if plastic repair of the right megalopelvis failed, the healthy renal parenchyma might deteriorate. (Reports of plastic reconstruction of renal pelves at that time indicated failure in 25 per cent of cases; I can assure you that such operations still are far from being 100 per cent successful even with the help of antibiotics.) In this case, therefore, it was decided to undertake resection of the isthmus of the horseshoe kidney with

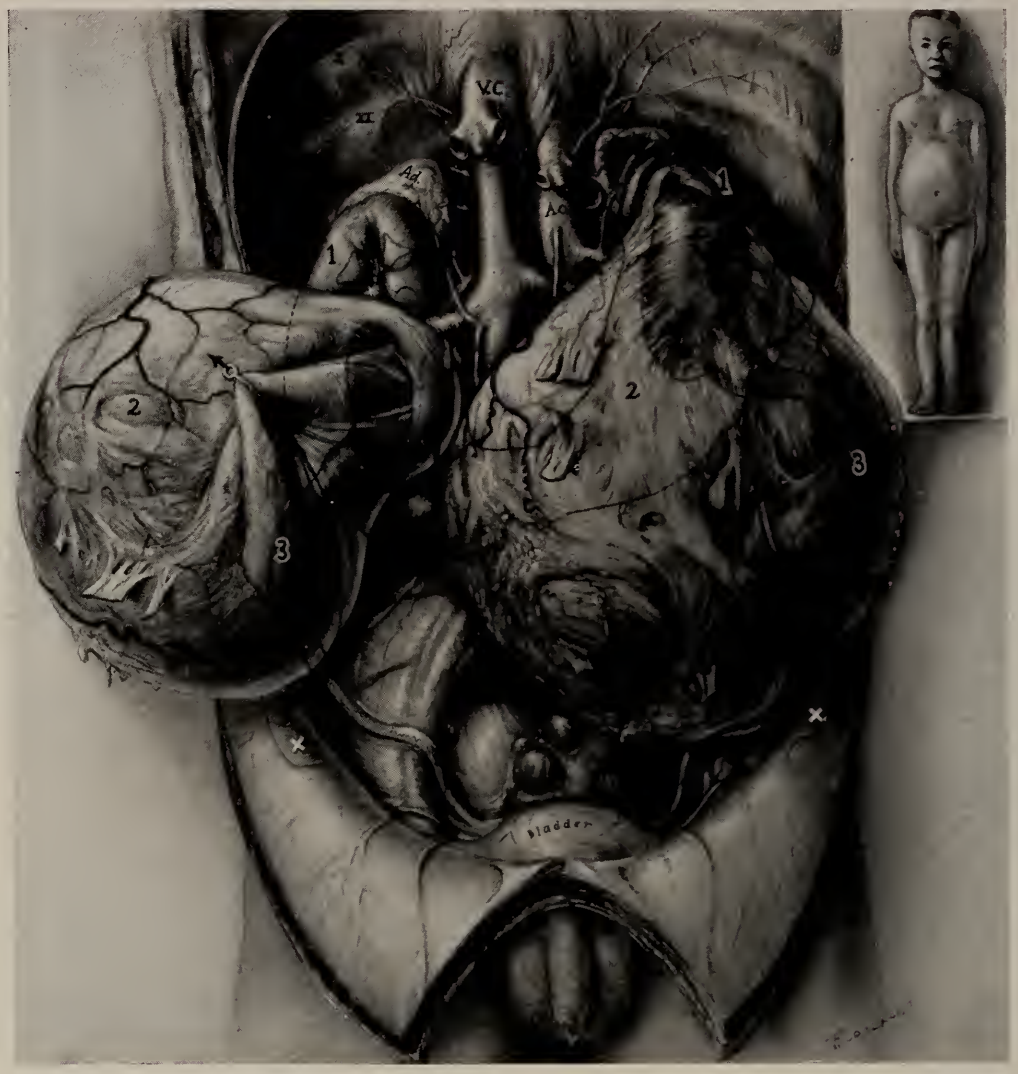

Fig. 6. Young boy with horseshoe kidney. On the right side, there is normal kidney parenchyma without caliectasis but with huge atonic renal pelvis (megalopelvis) associated with normal ureter. There was no obstruction. On the left, the huge pelvis has obstructed the ureter and destroyed the renal parenchyma. Dotted line indicates outline of horseshoe kidney; solid line, communication between kidney (1), sac (2), and ureter (3).

nephrectomy of the left hydronephrotic sac. The huge pouch-like renal pelvis on the right side was lifted up and its position inverted (as one would invert a jug to empty it); this position was maintained by suturing the inverted border of the pouch to the costal margin. Complete filling of this large sac could not take place unless the patient were placed in an upside down position. A ureteropelvic juncture was retained by leaving a small portion of the pelvic pouch in a dependent position to serve as a funnel into the ureter. There seemed little danger of ureteral pressure with development of the pathologic process that had existed on the opposite side. By this means, resection of the pelvis, with its hazard of secondary infection and perhaps an unsatisfactory result, was avoided. I felt that a good outcome could be expected; now fifteen years later this young man has had no further complaints.

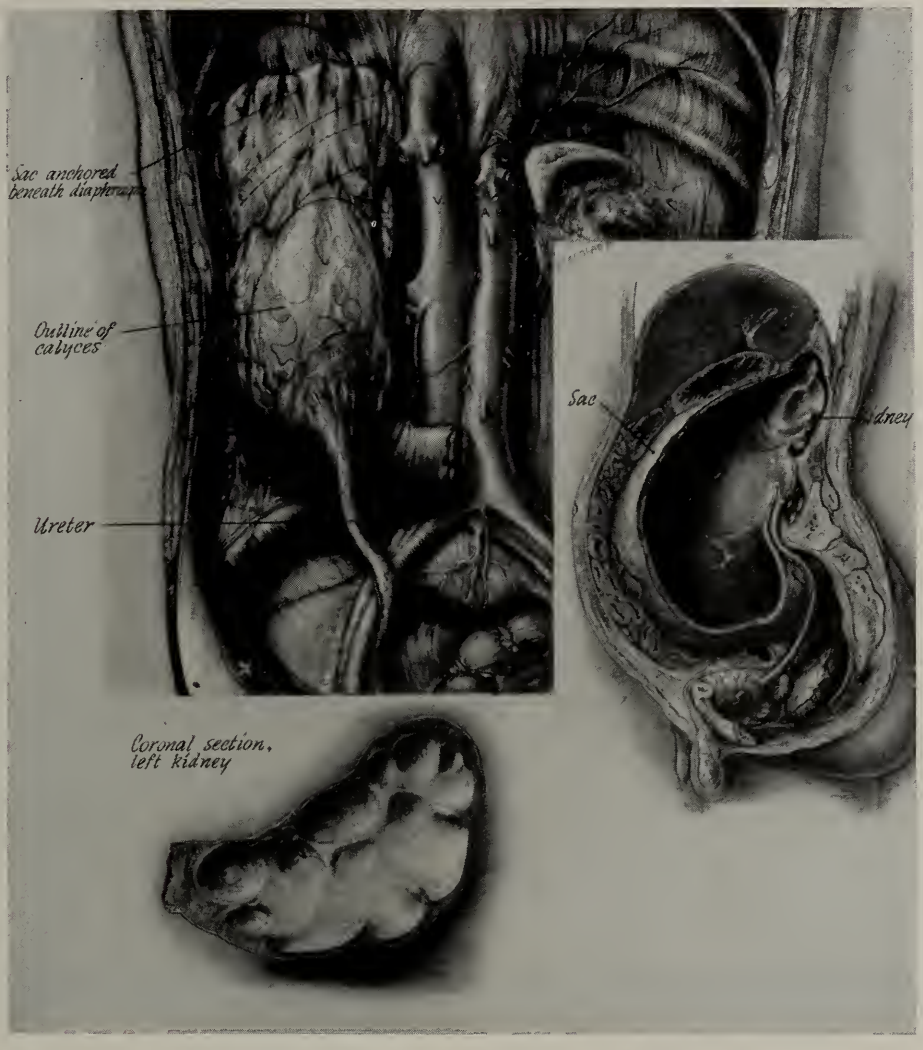

Fig. 7. Huge pelvis of right kidney is anchored up under the diaphragm to prevent it from obstructing the ureter. This side of the horseshoe kidney was removed and was only a shell as illustrated.

Conclusions

1. It is important to follow a careful routine plan in the original urologic examination. Detailed follow-up studies, including some type of radiologic survey, are often necessary to evaluate properly that which was first thought to be variation of normal. In some instances important lesions may be masked.

2. The treatment of infections in the urinary tract in children should be intelligently followed by use of the microscope upon the freshly obtained urine.

3. In the persistent or recurrent infections, urologic investigations should be carried out and cultures and sensitivity tests obtained.

4. The importance of dilating the urethra in cer-

tain cases of minimal bladder neck obstruction with or without ureteral regurgitation is emphasized.

5. A plea is made for conservatism rather than hasty operative procedures in certain dysfunctions of the bladder neck.

6. Surgical corrections can always be resorted to if more conservative measures are not remedial.

7. Although conservative measures are emphasized in a variety of apparently minor obstructive lesions, examples are given in certain more pronounced obstructive lesions of the importance of recognizing and adequately restoring normal function by surgical means before destructive processes intervene.

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American Rhinologic Society

The American Rhinologic Society will hold its sixth annual meeting at the Belmont Hotel, Chicago, October 8, 1960. Physicians are invited; there is no registration fee.

The guest of honor and one of the afternoon speakers will be Henry L. Williams, M.D., of the Mayo Clinic, Rochester, Minnesota, whose subject will be "Thirty Years of Experience in Rhinology." The dinner speaker will be Morris Fishbein, M.D., Chicago.

Two symposia will be presented in the morning. The participants in a symposium on "Nasal Pressure Tests" will be Maurice H. Cottle, M.D., Chicago, founder of the Society; David S. Hacker, Ph.D., Evanston, Illinois; Manual Wexler, M.D., Los Angles, and Charles J. Finn, M.D., Milwaukee. A symposium on "Choanal Atresia" will be presented by Francis H. McGovern, M.D., Danville, Virginia; G. Slaughter Fitz-Hugh, M.D., Charlottesville, Virginia, and Henry H. Beinfield, M.D., Brooklyn.

There will be six well-known afternoon speakers.

The American Rhinologic Society has been co-operating in the presentation of intensive postgraduate courses in universities in the United States and foreign countries. A report on a course in Mexico City will be made by George Drumheller, M.D., Everett, Washington, and William J. Neidlinger, M.D., Hartford, Connecticut. Irwin Gaynon, M.D., Milwaukee, will report on a course in Jerusalem, Israel.

A two-day surgical seminar in the Illinois Masonic Hospital, Chicago, will immediately precede the annual meeting.

For information, write Dr. Robert M. Hansen, secretary, American Rhinologic Society, 1735 North Wheeler Avenue, Portland 17, Oregon.

Medicine and Politics

The 1960 presidential campaign has exploded. The medical profession, the care of the aged, high "medical" costs are the storm center of this campaign and many things have contributed to this particular situation.

Two or three years ago, the President issued a call for a 1961 Conference on Aging to be held in Washington, and all groups interested were asked to make preparations, studies and plans. This direct concentration on the so called "senior citizen" and his "desperate" and frustrating inability to meet "medical costs" was accentuated by labor leaders and many others who have been demanding universal compulsory health insurance for the last 30 years.

The medical profession, represented by the American Medical Association, plus insurance and several other organizations, had for years protested so vigorously against the repeated Wagner-Murray-Dingell bills and others which would have established compulsory health insurance, that we earned and received the reputation of always being opposed and never suggesting constructive legislation. For many years the political atmosphere in our government from the top down worked to that one end—compulsory health insurance. The last few years the governmental administrative tone has changed and most of our fear of "socialized medicine" had passed.

* * *

DURING THIS 1960 CAMPAIGN, the social security program is being used as the cloak under which to establish the principle and the fact of medical care for the "needy" aged groups, which could be expanded to others. In pending legislation, "government" through social security proposes to give hospital and health services to the present and future beneficiaries of the social security program. Many bills have been before Congress. The Forand proposal has been discredited, but could be revived. Various groups have introduced other bills—individuals, most of the candidates for the nomination for President, and many others—including our Senior Senator from Michigan.

The Eisenhower administration has proposed a special bill for older persons with specified income limits at a cost of $24 a year. If there is a hardship the government, through the federal general funds, or the states or both, will supplement the contributions of the subscriber. The subscriber has to pay the first $250 which makes this program a "major medical" plan and therefore impractical for this needy group. The A.M.A. has also disapproved this measure. Mr. Nixon has not yet announced his plan but he says it will be voluntary.

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The animus back of this present political explosion dates back to the depression years when there were no jobs and great masses of unemployed, with nearly 50 per cent of the people on relief. Labor leaders proposed to pass the jobs on to younger persons. The social security act which provided for retirement at age 65 could have been proper in the early 30's, but with changing conditions, improved health and longer life, compulsory retirement is robbing our industry and our economic life of expert skills and long experience needed to meet the increasingly complicated and frustrated situation, problems, and economic life itself.

Social Security Restrictions

For fifteen years, THE JOURNAL of the Michigan State Medical Society has been advocating that the restrictions and penalty on working after retirement age be removed.

The OASI program is supposed to be insurance (that word is in its title), but it provides that when a person reaches retirement age (sixty-two for women, sixty-five for men) he must not earn more than $100 in any month, else he loses his social security payment for that month.

We believe that when an individual reaches the "retirement age" he should be given his earned benefits without question. He could stay in the productive economy of the nation, or retire as he wished. If he continued to work, he would be contributing to the social security program. We believe and advocate that age alone is not a rational reason for retirement, possibly voluntary but not compulsory.

The Michigan State Medical Society called a special conference on Aging in April and made some definite proposals which were published in the May number of THE JOURNAL on page 715, in which the Society officially advocates the removal of the age requirement on retirement, removal of the penalty for working in the older age group. There were ten items; please re-read them. The American Medical Association has taken the same attitude and a release by President Orr specifically proposes a similar program.

Misinformation Abounds

This political campaign is full of slanted insinuations and implications, tending to get votes from the aging citizen and from labor groups. Most prominent mention is that the 16 million persons over sixty-five are all in this frustrated group of inadequate income. Facts are that about 4 million of them have never been eligible for social security. They fall into the well established and long time functioning social welfare department of the government. They are indigent, handicapped, chronic non-workers, and the groups generally in our local and state welfare groupings always inadequately provided for. Others, variously estimated at 2.5 to 4 million are in the income level under $2,500 a year and cannot pay for health insurance without help. The balance are in the economic grouping who can pay their own way and be independent citizens, proud and self sufficient. Of these actually over 50 per cent have Blue Cross-Blue Shield, 15 per cent have other health insurance.

The group to which the government and the medical profession and others should make provision, are the 2.5 to 4 million of this definitely low income level. They need consideration and are entitled to it. A great many of them were placed in this lower income level through no fault of their own but by act of Congress and by economic controls denying them the chance to work, freezing their fixed income at an inadequate dollar level. The savings built up over long years in banks, in bonds, in annuities and pensions, have shrunk—the dollar going down to 47 cents in a short period. Relief and benefits to these older citizens with inadequate income is a problem demanding extensive study.

We suggested long ago that the government protect the value of its currency, and maybe attach a cost of living index. Government bonds, pensions, social security benefits are shrinking through no fault of the recipient. Our monetary system needs a doctor. Social security needs a doctor in about eight items.

Blue Shield Rate Increases

The Board of Directors of Michigan Medical Service at a special meeting May 2 instructed the management to apply to the state insurance commissioner for a 19½ per cent rate increase. This action was taken as a result of extensive research and studies, several board meetings, consultations with auditors, actuaries and the best insurance advisors obtainable. This action of the Board was taken after a session lasting more than ten hours.

The M-75 rates established by insurance experts in late 1957 was adopted by the State Medical Society and put into operation in early 1958. If a prompt

changeover could have been made, these rates which were projected for two years, would have been adequate. The rates for the old contracts, the $2,500 and $5,000 income limits, were increased at that time also but not so much as they should have been with the result: increasing losses for the old contracts and insufficient gains under the new contract due in part to delay in transfer. There are still over 320,000 subscribers under the old contract.

On May 11, the Board held a regular meeting and reviewed the action taken. Management had been instructed to send a letter of explanation to every doctor member of the Michigan State Medical Society or on the rolls of Michigan Medical Service. This letter contained the necessary information and data substantiating the action. There are two outstanding facts: first, Blue Shield is now offering many more services under the M-75 contracts such as x-ray, radium, laboratory tests, consultation and many types of treatment in the doctor's office or in the hospital out-patient department; secondly, people are using the doctors more for the regularly covered services.

Fifteen years ago, Blue Shield paid for twelve surgical bills a year for every 1,000 members. Last year it paid for twenty-nine operations per 1,000 members. A goodly share of this increase is because of changes in medical practice and the attitude of the public toward more complete medical care. The letter sent to the members is reproduced on page 1122.

Research Studies To Be Reported

In 1956, Blue Cross asked for its tenth increase in rates. The Governor appointed a Survey Study Commission to determine "new methods of supplying more adequate health care to the people." The Governor's Commission advocated a thorough study to be done at the University of Michigan. That study under Professor Walter McNearny is promised for late June. This survey was done only at the request of Michigan Medical Service, Michigan Hospital Service, Michigan State Medical Society and Michigan Hospital Association. All have been anxiously awaiting this report.

The Michigan State Medical Society requested the National Administration of Blue Shield to come to Michigan to make a study and report. Several trips have been made and many conferences held, partial reports have been given but the final report is expected in early August.

When Blue Shield made application for this last rate increase, the Michigan State Insurance Commissioner announced he would hold public hearings, one for May 24 in Detroit, and one for May 27 in Grand Rapids before he granted the rate increase.

At its final action before adjourning May 14, the Senate of the Michigan Legislature authorized the appointment of a six-man committee to study Blue Cross and Blue Shield to determine faults and failures and to advise improvement. This report is to be ready at the next session of the legislature, but to await the University of Michigan report.

Michigan is not the only state having governmental, legislative and other studies. The Blue Cross and Blue Shield programs have universally embraced new services or expensive services and more frequent services to the public, all of which demand increased policy rates and over the years increased payments to the doctors. Massachusetts, Connecticut, New York, Pennsylvania, Michigan, Wisconsin, Minnesota, and Washington, D. C., have all had their experiences.

The Future

Are the pre-paid programs, medical or hospital, about to fail?

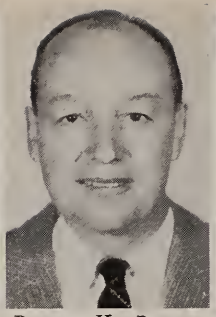
We do not believe so.

In the '30's and '40's, these programs staved off a tremendous drive for "compulsory health insurance" under the government. Now that same drive for government control is on again and we believe a new concept must be adopted. The public and the doctors must accept the pre-paid program in an entirely different light. In the years past, they have taken it as a rich insurance company which can pay for medical and hospital care, and used it as a right paid for.

The plans sometimes have been used without hindrance, many times for convenience or for services which were never intended to be covered. Many of our members have proposed that Blue Shield establish a deductible policy in which the subscriber pays the first set amount before the insurance takes effect. Such a policy, to be sold only in groups, was established under the M-75 program, and out of our 3.5 million, less than 10,000 subscribers took it.

Blue Cross and Blue Shield must survive and continue the battle against loss of freedom to practice medicine and to operate hospitals. The fight is against creeping and constantly increasing encroachment of governmental service, supplying health care for our people.

Rudolf L. Baer, M.D.



Robert H. Barter, M.D.

Donald J. Birmingham, M.D.

John J. Bonica, M.D.

Hugh R. Butt, M.D.

Charles G. Child, III, M.D.

Bentley P. Colcock, M.D.

Ralph T. Collins, M.D.

Annual Session Speakers 1960

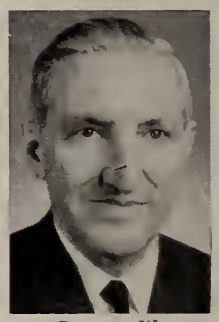
John J. Conley, M.D.

Gordon A. Donaldson, M.D.

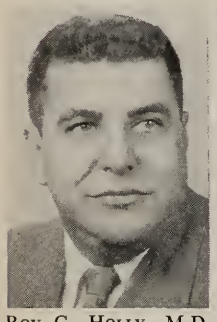
John B. Gross, M.D.

Ruth J. Guttmann, M.D.

Leonard E. Himler, M.D.



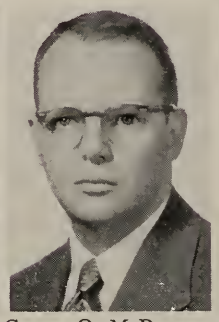
Robert W. Hollenhorst, M.D.



Roy G. Holly, M.D.

Clarence S. Livingood, M.D.

Leonard L. Lovshin M.D.



Gerald O. McDonald, M.D.

Malcolm H. Merrill, M.D.

Reed M. Nesbit, M.D.

Vincent J. O'Conor, M.D.

William D. Robinson, M.D.

Mitchell I. Rubin, M.D.

Harry M. Spence, M.D.

R. Dorothy Sundberg, M.D.

E. Clinton Texter, Jr., M.D.

Michigan State Medical Society

The Ninety-Fifth Annual Session

SHERATON-CADILLAC HOTEL, DETROIT

September 25-30, 1960

ANNUAL SESSION INFORMATION

• **DIRECTORY**

Headquarters—Sheraton-Cadillac Hotel, Detroit

Registration—for House of Delegates: Sunday, September 25, 6:00 p.m., outside of Grand Ballroom on Fourth Floor, Sheraton-Cadillac Hotel

For Scientific Session: Tuesday, September 27 through Friday, September 30, Fourth Floor, Sheraton-Cadillac Hotel

Hours:

Tuesday, September 27—10:00 a.m. to 5:15 p.m.

Wednesday, September 28—8:00 a.m. to 5:15 p.m.

Thursday, September 29—8:00 a.m. to 5:15 p.m.

Friday, September 30—8:00 a.m. to 1:30 p.m.

Press Rooms—Michigan Room and Ontario Room, Fifth Floor, Sheraton-Cadillac Hotel

Woman's Auxiliary Headquarters—Hotel Pick-Fort Shelby

Michigan State Medical Assistants Society Headquarters—Statler-Hilton Hotel

• **NO REGISTRATION FEE FOR MEMBERS OF MSMS AND OTHER STATE MEDICAL ASSOCIATIONS, AMA, AND CANADIAN MEDICAL ASSOCIATION.**

Admission will be by badge only to all Scientific Assemblies, Section meetings, and the Exhibition. Please present your MSMS or other State Medical Association, AMA, or CMA membership card to expedite your registration. We wish to save your time.

SECTION MEETINGS

TUESDAY, SEPTEMBER 27
- General Practice
- Medicine
- Public Health and Preventive Medicine

WEDNESDAY, SEPTEMBER 28
- Anesthesiology
- Obstetrics-Gynecology
- Radiology
- Surgery

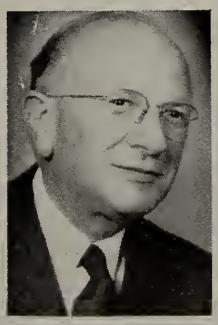
THURSDAY, SEPTEMBER 29
- Dermatology-Syphilology
- Nervous and Mental Diseases
- Occupational Medicine
- Ophthalmology
- Otolaryngology
- Pediatrics
- Urology

FRIDAY, SEPTEMBER 30
- Gastroenterology-Proctology
- Pathology

• **MICHIGAN DOCTORS OF MEDICINE,** in practice but who are not members of MSMS, if listed in the American Medical Association Directory, may register as guests upon payment of $25.00. This amount will be credited to them as dues in the Michigan State Medical Society, **FOR THE BALANCE OF 1960 ONLY,** provided they subsequently are accepted as members by the county medical society in whose jurisdiction they practice.

• **TELEPHONE SERVICE**—Special lines to handle local and long distance telephone service for registrants at the MSMS meeting will be installed on the Fourth Floor near the Grand Ballroom, Sheraton-Cadillac Hotel. Call WOodward 1-8000.

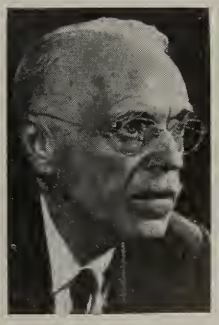
HARRY A. TOWSLEY, M.D.



HENRY J. TUMEN, M.D.

ROBERT TURELL, M.D.

R. LOMAX WELLS, M.D.



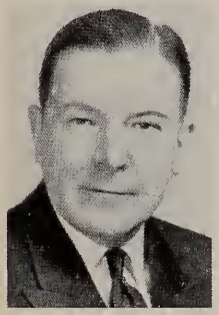
PAUL DUDLEY WHITE, M.D.

J. ROBERT WILLSON, M.D.

• **CHECK ROOM**—Fourth Floor, Sheraton-Cadillac Hotel.

• **OFFICERS' NIGHT** will be incorporated into the closing session of the House of Delegates. All members are especially invited to attend to see the House at work and to participate in the "changing of the guard" as the new officers assume the responsibilities of office.

• **POSTGRADUATE CREDITS ARE GIVEN TO EVERY MSMS** member who attends the Annual Session.



MILTON R. WEED, M.D.

• **Milton R. Weed, M.D.**, Detroit, is Chairman of the Committee on Arrangements for the 1960 Annual Session.

• **GUEST ESSAYISTS** are very respectfully requested not to change time of their lectures with another speaker without the approval of the Assembly Chairman. This request is made in order to avoid confusion and disappointment on the part of members of the audience.

• **TRANSPORTATION**—the C & O Streamliners afford a convenient means of transportation to the MSMS Annual Session in Detroit for hundreds of physicians located in the Grand Rapids-Lansing area of the State.

• **PARKING**—Do not park on Detroit's streets. Inside parking at a convenient distance from the Sheraton-Cadillac Hotel is available at the DAC Garage, 1754 Randolph; the Grand Circus Garage, 1776 Randolph; and the Book Tower Garage, 333 State Street.

• **THE HOUSE OF DELEGATES PRESS COMMITTEE** is composed of: J. J. Lightbody, M.D., Chairman, Detroit; Milton A. Darling, M.D., Detroit; H. F. Falls, M.D., Ann Arbor; C. Allen Payne, M.D., Detroit; M. R. Weed, M.D., Detroit; and D. Bruce Wiley, M.D., Utica.

INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE WILL BE FOUND at the Michigan State Medical Society Annual Session. All subjects on the MSMS Annual Session Program are applicable to clinical medicine. They stress diagnosis and treatment in everyday practice.

MICHIGAN MEDICAL SERVICE
Schedule For Members
Sheraton-Cadillac Hotel, Detroit
Tuesday, September 27, 1960

1:00 p.m. Luncheon—English Room
2:00 p.m. MMS Annual Meeting—English Room

All MSMS Delegates are members of Michigan Medical Service corporation and are expected to attend the MMS luncheon and Annual Meeting. The MMS Annual Meeting is open to ALL members of the medical profession, who are cordially invited to attend.

• **THE SCIENTIFIC PRESS COMMITTEE** is composed of: H. F. Dibble, M.D., Chairman, Detroit; A. B. Gwinn, M.D., Hastings; J. J. Lightbody, M.D., Detroit; A. E. Schiller, M.D., Detroit; M. R. Weed, M.D., Detroit; and C. L. Weston, M.D., Owosso.

• **THE MSMS HOUSE OF DELEGATES** convenes Sunday, September 25, 8:00 p.m., Grand Ballroom, Sheraton-Cadillac Hotel; it will hold its second and third meetings on Monday, September 26, at 9:00 a.m. and 8:00 p.m.; and its fourth and fifth meetings on Tuesday, September 27 at 9:00 a.m. and 8:00 p.m.

• **THE TECHNICAL EXHIBITS** will open at 1:00 p.m. on Tuesday and at 9:30 a.m. on Wednesday, Thursday, and Friday; and will close daily at 5:15 p.m. except on Friday when the break-up is 1:30 p.m. Frequent intermissions to view the educational displays have been arranged before, during, and after the Assemblies. Bring to the MSMS convention a "WANT LIST" of your needs and place an order with your MSMS exhibitors.

• **PAPERS WILL BEGIN AND END ON TIME**—Believing there is nothing which makes a scientific meeting more attractive than by-the-clock promptness and regularity, all meetings will open exactly on time, all speakers will be required to begin their papers exactly on time and to close exactly on time in accordance with the schedule in the program. All who attend the meeting, therefore, are requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly. Any member who arrives five minutes late to hear any particular paper will miss exactly five minutes of that paper!

HOTEL RESERVATIONS
for the
95th ANNUAL SESSION
MSMS
should be made
NOW

MEETINGS OF SPECIAL SOCIETIES AND ALUMNI GROUPS

TUESDAY, SEPTEMBER 27

MICHIGAN SOCIETY OF INTERNAL MEDICINE AND MSMS SECTION ON MEDICINE—meeting, reception, and dinner.

MICHIGAN ACADEMY OF PEDIATRICS—all-day meeting and dinner.

MICHIGAN ACADEMY OF PHYSICAL MEDICINE AND REHABILITATION—luncheon-meeting.

WEDNESDAY, SEPTEMBER 28

MICHIGAN REGIONAL COMMITTEE ON TRAUMA, AMERICAN COLLEGE OF SURGEONS—luncheon-meeting followed by scientific meeting.

MICHIGAN SOCIETY OF CLINICAL HYPNOSIS—evening meeting.

MICHIGAN SOCIETY OF OBSTETRICS AND GYNECOLOGY AND MSMS SECTION ON OBSTETRICS AND GYNECOLOGY—meeting, reception, and dinner.

DETROIT PEDIATRIC SOCIETY—reception, dinner, and meeting.

MICHIGAN ALLERGY SOCIETY — reception-dinner-meeting.

THURSDAY, SEPTEMBER 29

DETROIT BRANCH, AMERICAN UROLOGIC SOCIETY AND MSMS SECTION ON UROLOGY—meeting and reception.

MICHIGAN SOCIETY OF NEUROLOGISTS AND PSYCHIATRY, MICHIGAN DISTRICT BRANCH OF THE AMERICAN PSYCHIATRIC ASSOCIATION, AND THE MSMS SECTION ON NERVOUS AND MENTAL DISEASES—meeting, reception, and dinner.

DETROIT OTO-LARYNGOLOGICAL SOCIETY AND THE MSMS SECTION ON OTOLARYNGOLOGY—meeting, reception, and dinner.

WAYNE STATE UNIVERSITY COLLEGE OF MEDICINE ALUMNI ASSOCIATION—reception and dinner.

ASSOCIATION OF ALPHA KAPPA KAPPA—breakfast meeting.

FRIDAY, SEPTEMBER 30

MICHIGAN PATHOLOGICAL SOCIETY AND MSMS SECTION ON PATHOLOGY—meeting, reception, and dinner.

MSMS SECTION ON GASTROENTEROLOGY AND PROCTOLOGY—luncheon meeting.

MICHIGAN DIABETES ASSOCIATION

Fall Clinical Program

September 30, 1960

Sheraton-Cadillac Hotel—Detroit

Afternoon Session

Chairman: Ralph Fitts, M.D., Grand Rapids, Michigan

P.M.

2:00 "Physiology of Diabetes"—Robert B. Leach, M.D., Assistant Professor of Medicine, Wayne State University College of Medicine, Detroit

2:20 "Pathology of Diabetes"—John R. McDonald, M.D., Associate Professor of Pathology, Wayne State University College of Medicine, Detroit

2:40 "Modern Insulin Therapy"—Henry T. Ricketts, M.D., Professor of Medicine, University of Chicago School of Medicine, Chicago, Illinois

Intermission

3:20 "Oral Drugs in Diabetes"—James M. Moss, M.D., Clinical Associate Professor of Medicine, Georgetown University School of Medicine, Washington, D. C.

3:40 "Clinical Use of Glucagon"—Fred W. Whitehouse, M.D., Associate Physician, Henry Ford Hospital, Detroit

4:00 PANEL: "Peripheral Vascular Disease in the Diabetic"

Moderator:

Walter L. Anderson, M.D.—Clinical Assistant Professor of Medicine, Wayne State University College of Medicine, Detroit

Members:

Henry T. Ricketts, M.D.—Chicago

Eugene A. Osius, M.D.—Clinical Associate Professor of Surgery, Wayne State University College of Medicine, Detroit

Melvin A. Block, M.D.—Associate Surgeon, Henry Ford Hospital, Detroit

Sidney Goldenberg, M.D.—Senior Instructor in Medicine, St. Louis University School of Medicine, St. Louis, Missouri

Evening Session

P.M.

6:30 Cocktails and Dinner

8:00 "Specific Vascular Lesions in the Diabetic"—Sidney Goldenberg, M.D., Senior Instructor in Medicine, St. Louis University School of Medicine, St. Louis, Missouri

THE MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY will hold its convention at the Statler Hotel coincident with the MSMS Annual Session.

The eleventh annual convention of the MSMAS will celebrate the 20th birthday and organization of the Detroit Medical Assistants Society.

Some highlights: An afternoon with Dr. Willard Dickerson of Caro, Michigan, on his fascinating subject of epilepsy; a morning divided between Dr. Joseph Molnar of the Detroit Board of Health on vaccines and Dr. Stuart Finch of Ann Arbor on adolescent problems.

Entertainment includes a troubadour serenade, a style show with the latest in uniforms as prizes, and a tour of the big city.

September 28 and 29: A MUST in Detroit!

THE WOMAN'S AUXILIARY TO THE MICHIGAN STATE MEDICAL SOCIETY will hold its Annual Session this year at the Pick-Fort Shelby in Detroit, September 27-29. For the Auxiliary this will be the thirty-fourth year, the ideal age of woman, and the Auxiliary officers hope all wives and guests of doctors attending the MSMS Annual Session will find their way to the W. A. center of activity.

Here will be opportunity for renewing friendships of the past and making new and exciting ones. Here one can learn what is being done around the state by other doctors' wives. There will be coffee and refreshment for all in our hospitality room; delicious luncheons at noon.

Come Tuesday, register and make your reservations, then spend the day shopping. Stay Wednesday for excitement and information in the meetings. Thursday, your new officers will be installed and there will be more shopping time in the afternoon before celebrating State Society Night with your husband.

In honor of Kathleen Mackersie, Michigan's First National President, the WA officers hope you will come and help make this convention the biggest gala event in the history of the Auxiliary! You really can't afford to miss it!

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

Thirty-fourth Annual Meeting

September 27-29, 1960

Pick-Fort Shelby — Detroit

PROGRAM

Tuesday, September 27

P.M.

12:00 Registration in Lobby, Pick-Fort Shelby
Hospitality Room Opens
Luncheon—Shelby Room—Planning Conference for District Directors 1959-60 and 1960-61
Mrs. Clarence Owen, Presiding

3:00 Executive Committee Meeting—Shelby Room

4:00 Meeting of 1959-60 and 1960-61 Committee Chairmen—Shelby Room

Wednesday, September 28

A.M.

9:30 Pre-Convention Board Meeting (for 1959-60 State Officers, Directors, Chairmen and County Presidents)—Crystal Ballroom

10:00 Formal Opening of 34th Annual Meeting of the Woman's Auxiliary to the Michigan State Medical Society—Crystal Ballroom
Mrs. Harold Gay, Presiding

(Delegates and Board Members will please register with the Roll Call Chairman at the door before the opening of each session, thus eliminating the need of an oral roll call.)

Invocation—Bishop R. S. Emerich, St. Pauls Cathedral, Detroit

Pledge of Allegiance to the Flag and Woman's Auxiliary Pledge—Mrs. Robert Hafford

Address of Welcome—Mrs. Earl Weston, Immediate Past President, Wayne County Auxiliary

Response—Mrs. Clarence Owen, First Vice-President, Woman's Auxiliary to the Michigan State Medical Society

Introduction of Convention Chairmen, Mrs. F. P. Rhoades and Mrs. Edwin Fenton

Report of Roll Call Chairman, Mrs. Frederick Luger

Convention Rules of Order

Presentation of Program

Announcements

Address of the President—Mrs. Harold H. Gay

Reports of the Officers:

President-Elect—Mrs. Paul Ivkovich

First Vice-President—Mrs. Clarence Owen

Second Vice-President—Mrs. Rose Taylor

Recording Secretary—Mrs. William Marshall

Corresponding Secretary—Mrs. G. L. Hagelshaw

Financial Secretary—Mrs. C. J. Stringer

Treasurer—Mrs. R. J. Himmelberger
(including the Auditor's report)

Report of the Finance Committee and presentation of 1960-61 budget—Mrs. F. X. Krynicki, chairman

Unfinished Business

New Business

P.M.

12:30 Past President's Luncheon—Honoring:
Mrs. William Mackersie, President Woman's Auxiliary to the AMA, Guest from Woman's Auxiliary to the AMA, Past President of the Woman's Auxiliary to the MSMS and Representatives of the MSMS

Coral Room—Pick-Fort Shelby

Greetings—Kenneth Johnson, M.D., President-Elect MSMS and David I. Sugar, M.D., President Wayne County Medical Society

Representative from Woman's Auxiliary to AMA Guest Speaker

2:30 Résumé General Session
Crystal Ballroom

Address—Representative from Woman's Auxiliary to AMA

County Reports—"The Year in Silhouette"

District I—Moderator—Mrs. Milton Weed
Huron, Lapeer, Macomb, Oakland, Sanilac, St. Clair, Wayne

District II—Moderator—Mrs. Victor Zerbi
Eaton, Ingham, Jackson, Lenawee, Livingston, Monroe, Washtenaw

District III—Moderator—Mrs. Albert Fiegel
Allegan, Berrien, Branch, Calhoun, Kalamazoo, St. Joseph, Van Buren

Thursday, September 29

A.M.

9:30 General Meeting of the Woman's Auxiliary to the Michigan State Medical Society—Mrs. Harold Gay, *presiding*

Convention Announcements

Report of Registration and Credentials Committee

In Memoriam Service—Mrs. C. Allen Payne

County Reports *(continued)*

District IV—Moderator—Mrs. Lorenzo Nelson, Ionia-Montcalm, Kent, Mason, Mecosta-Osceola-Lake, Muskegon, Newaygo
District V—Moderator—Mrs. William Gamble, Jr., Bay, Genesee, Gratiot-Isabella-Clare, Clinton, Midland, Saginaw, Shiawassee, Tuscola

District VI and VII — Moderator — Mrs. Charles Oppy, Grand Traverse-Leelanau-Benzie, North Central, Northern Michigan, Wexford-Missaukee
District VIII and IX — Moderator — Mrs. Leonard Aldrich, Delta-Schoolcraft, Dickinson-Iron, Marquette-Alger, Menominee, Houghton-Baraga-Keeweenaw, Gogebic, Ontonagon, Chippewa

Report of Resolutions Committee
Report of Nominating Committee—Mrs. Robert Reagan, *Chairman*

Election of Officers

Final Report of Registration and Credentials Committee

Meeting of Executive Committee 1960-61—Mrs. Paul Ivkovich, *presiding*

P.M.
12:30 Inaugural Luncheon—Coral Room, Pick-Fort Shelby Hotel

Installation of Officers

Presentation of Past President's Pin—Mrs. Robert Reagan

Inaugural Address—Mrs. Paul Ivkovich

Adjournment

Post-Convention Board Meeting for all 1960-61 Officers, District Directors, Chairmen, and County Presidents—immediately following adjournment of Annual Meeting
Coral Room—Pick-Fort Shelby Hotel
Mrs. Paul Ivkovich, *presiding*

P.M.
9:30 to 12:30 **A.M.** State Society Night
Host—Michigan State Medical Society

NEW INFORMATION IN THE EXHIBIT

Many items of interest or education will be found in the large exhibit of 95 technical displays. The Exhibit Section at MSMS Annual Sessions is as important, informative, and desirable to most doctors of medicine as the scientific papers presented in the Assembly room.

Doctor, stop at every booth—you'll be surprised how much you'll learn. No highpressure salesman but a courteous, well-informed exhibitor will greet you and supply you with some valuable information helpful to your patients.

• **THE HOLDER OF A HOTEL RESERVATION** who fails to show up . . . and fails to cancel his reservation . . . causes gastric hyper-peristalsis, hypersecretion of the hydrochloric acid, and rubus of the gastric mucosa to the hotel manager.

When convention reservations fill a hotel to the capacity, a room not occupied is a loss in $$$ that cannot be reclaimed.

The MSMS Annual Session always means a capacity house in the Detroit headquarters hotel.

Be kind to the hotel manager . . . be good to MSMS . . . be generous to your patients . . . be a friend to yourself—by showing up at the Sheraton-Cadillac Hotel in Detroit, for the days of the MSMS Annual Session.

Order your hotel accommodations today.
(See page 1089)

AMERICAN ACADEMY OF PEDIATRICS

Michigan Chapter

Annual Meeting—September 27, 1960—Detroit

Henry Ford Hospital-Clinic Building Auditorium

Morning Session

Dr. Philip J. Howard, Presiding

Case Presentations and Discussion

A.M.
10:00 Adenoma of the Thyroid—Dr. Martin Miller
10:30 Intersex Problems of the Newborn Infant—Dr. C. Paul Hodgkinson
11:00 Aldosteronism—Clinical Description and Course—Dr. Raymond Mellinger
11:30 The Infant of the Diabetic Mother—Dr. Gordon Manson

M.
12:00 The Parathyroid—Dr. Boy Frame

P.M.
12:45 LUNCH—17th Floor

Afternoon Session

Dr. Robert Heavenrich, Presiding

2:00 Turner's Syndrome—Dr. Richmond Smith
2:30 Adolescent Menstrual Problems—Dr. George LaCroix
3:00 Treatment of Hyperthyroidism—Dr. Robert Bauer
3:30 The Complications of Steroid Treatment—Dr. J. A. Johnston

Evening Session

Washington Room—Sheraton-Cadillac Hotel

6:00 Cocktails and Dinner
Host—The Baker Laboratories, Cleveland, Ohio
8:00 Evening Meeting
Business—Election of Officers
Speaker—Dr. Robert Blizzard—Columbus, Ohio, and Johns Hopkins Medical School

MSMS Ninety-fifth Annual Session

House of Delegates

Reference Committees and Credentials Committee

(All meetings of Reference Committees will be held in the Sheraton-Cadillac Hotel, Detroit)

CREDENTIALS COMMITTEE

Frank D. Johnson, M.D., *Chairman,* Flint
Robert E. Rice, M.D., Greenville
A. Zack Rogers, M.D., Detroit
Jack Rom, M.D., Detroit

REFERENCE COMMITTEES

Officers Reports

Gaylord S. Bates, M.D., *Chairman,* Detroit
Edwin H. Fenton, M.D., Detroit
Wm. J. Fuller, M.D., Grand Rapids
Don W. McLean, M.D., Detroit
Edward G. Siegfried, M.D., Mt. Clemens
Robert M. Stow, M.D., Lansing

Reports of The Council

James B. Blodgett, M.D., *Chairman,* Detroit
John R. Brown, M.D., Detroit
Albert D. Ruedemann, M.D., Detroit
Frederick C. Ryan, M.D., Kalamazoo
Allison R. Vanden Berg, M.D., Grand Rapids

Reports of Standing Committees

John G. Slevin, M.D., *Chairman,* Detroit
Raphael Altman, M.D., Detroit
John R. Heidenreich, M.D., Daggett
Lloyd L. Savage, M.D., Caro
David I. Sugar, M.D., Detroit

Reports of Special Committees

Keate T. McGunegle, M.D., *Chairman,* Sandusky
Wm. S. Carpenter, M.D., Detroit
Ralph A. Johnson, M.D., Detroit
J. Leonidas Leach, M.D., Flint
Sherman L. Loupee, M.D., Dowagiac

Constitution and Bylaws

Ralph R. Cooper, M.D., *Chairman,* Detroit
Louis J. Bailey, M.D., Detroit
Alexander B. Gwinn, M.D., Hastings
Francis P. Rhoades, M.D., Detroit
A. Carl Stander, M.D., Saginaw
Joseph A. Witter, M.D., Detroit
Lester P. Dodd, Legal Counsel, *ex officio,* Detroit

Resolutions

Milton R. Weed, M.D., *Chairman,* Detroit
Herbert W. Harris, M.D., Lansing
Paul Ivkovich, M.D., Reed City
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MICHIGAN STATE MEDICAL SOCIETY

95th Annual Session

Detroit, September 27-28-29-30, 1960

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Michigan State Medical Society

The Ninety-Fifth Annual Session

SHERATON-CADILLAC HOTEL, DETROIT

SEPTEMBER 27-28-29-30, 1960

Program of Assemblies and Sections

TUESDAY AFTERNOON

September 27, 1960

First Assembly

Grand Ballroom

Chairman: WILLIAM N. HUBBARD, JR., M.D., Ann Arbor
Secretary: B. M. BULLINGTON, M.D., Saginaw

1:00 P.M.

EXHIBITS OPEN

2:00 P.M.

"BILIRUBIN METABOLISM: CHANGING CONCEPTS"

HUGH R. BUTT, M.D., Rochester, Minnesota

Professor of Medicine, Mayo Foundation, University of Minnesota

This discussion will deal with the changes in our knowledge of bilirubin metabolism during the past five years. These developments have been perhaps among the greatest advances in liver physiology. The new concepts will force a complete change in our understanding of bile pigments and jaundice, and will necessitate our re-learning this phase of basic and applied physiology and chemistry. Such advances are an outstanding example of the contribution of basic research to clinical medicine.

Developments of this nature not only answer many unexplained questions about bilirubin but also lead to a better understanding of the various clinical forms of jaundice, their diagnosis, and treatment.

2:30 P.M.

"PANCREATITIS: A CLINICIAN'S VIEWPOINT"

JOHN B. GROSS, M.D., Rochester, Minnesota

Assistant Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; Consultant in Internal Medicine, Mayo Clinic and Affiliated Hospitals

In most instances the clinical picture of pancreatitis is distinctive enough to permit a presumptive diagnosis. However, in other cases, such as those in which jaundice is the predominating feature or those in which there is little abdominal pain or atypical pain, the diagnosis is more difficult. Critical review of available diagnostic help points up the need for more definite and precise diagnostic criteria. The history of typical seizures remains the cornerstone of diagnosis.

Experience with the hereditary form of pancreatitis is described briefly, and the need is stressed for more intensive search for similar instances among blood relatives of those with pancreatitis. Hyperparathyroidism also may be associated with pancreatitis more frequently than has been realized; this type of association has been recognized in four patients seen at the Mayo Clinic in the past three years. The puzzling association of hyperlipemia and pancreatitis in other cases invites further study.

The management of patients with pancreatitis, ideally an integrated medical-surgical effort, should be individualized and all too often leaves something to be desired.

3:00 P.M.

INTERMISSION TO VIEW EXHIBITS

4:00 P.M.

"MALABSORPTION SYNDROMES"

HENRY J. TUMEN, M.D., Philadelphia, Pennsylvania

Professor of Medicine and Chairman of the Department of Medicine, Graduate School of Medicine, University of Pennsylvania

The term "malabsorption disorder" is applied to a wide variety of conditions of which the common basic feature is the inability to absorb food substances from the intestinal tract. Because the inability is often most obvious in reference to fat, malabsorption disorders are frequently thought of in terms of steatorrhoea, a somewhat limited concept. These disorders have aroused great interest in recent years, and with their investigation have come notable advances in our knowledge of small intestinal physiology and pancreatic function.

Malabsorption is only a symptom. It may be caused by a wide variety of diseases that range from pancreatic insufficiency to destructive lesions of the small intestine and the peculiar absorptive dysfunction of the bowel that is characteristic of sprue. Proper diagnosis requires not only determination of the existence of malabsorption but also recognition of its cause. Accurate diagnosis can usually be established by proper use of clinical evaluation, a variety of absorption tests, hematologic survey, x-ray studies of the small intestine, investigation of pancreatic function and small intestinal biopsy. Correct diagnosis is, of course, the first step in planning correct therapy.

The most striking therapeutic advance in reference to malabsorption disorders has been the introduction of the gluten-free diet for the treatment of nontropical sprue. This has been so successful that the whole concept of the nature and management of this disease has changed.

The general diagnostic problem of malabsorption disorders will be reviewed and the use of specific diagnostic procedures will be discussed. Therapeutic measures in current use will be presented and evaluated.

4:30 P.M.

"PUBLIC HEALTH, PRESENT AND FUTURE, AS VIEWED BY PUBLIC HEALTH ADMINISTRATOR"

MALCOLM H. MERRILL, M.D., Berkeley, California

Director, California State Department of Public Health and President, American Public Health Association

The recent significant changes in the physical, biologic, and social environment in the United States will be briefly reviewed. The impact of these changes on health and on the organization of health services will be mentioned. The changing role of the official governmental health agency will be indicated and the potential of further changes, additional and changed responsibilities of the official health agency in the future will be indicated. The interrelationship between the official health agencies and the medical profession resulting from these changes will be discussed.

5:00 P.M.

END OF FIRST ASSEMBLY

MUCH THAT IS NEW AND USABLE
WILL BE FOUND IN THE
EXCITING MSMS EXHIBIT

TUESDAY AFTERNOON

September 27, 1960

Program of Sections

Section on Medicine and Michigan Society of Internal Medicine

5:00 P.M. (Meeting, Reception and Dinner)

Chairman: Bert M. Bullington, M.D., Saginaw
Secretary: Hugh W. Henderson, M.D., Detroit

"DISEASES OF CONNECTIVE TISSUE—SIMILARITIES AND DIFFERENCES"

William D. Robinson, M.D., Ann Arbor, Michigan
Professor and Chairman, Department of Internal Medicine, University of Michigan Medical School; Consultant, Rackham Arthritis Research Unit

Because of certain similarities in the microscopic pathology of the disease process, it has become popular to group together rheumatic fever, rheumatoid arthritis, systemic lupus erythematosis, polyarteritis nodosum, dermatomyositis, and scleroderma under the common heading of collagen diseases, or diseases of connective tissue. The common pathologic denominator in these conditions is that of fibrinoid degeneration. The nature of fibrinoid will be discussed from the point of view of the constituents of connective tissue which are involved. Serologic reactions in these diseases will be discussed from the point of view of a possible common etiology. Similarities and differences with respect to clinical manifestations and methods of treatment will be presented. Particular attention is directed at the course which these diseases follows.

Section on Public Health and Preventive Medicine

5:00 to 6:00 P.M. (Meeting)

Chairman: L. V. Burkett, M.D., Flint
Secretary: Vlado A. Getting, M.D., Ann Arbor

"THE ROLE OF COMMUNITY AIR QUALITY ON HEALTH"

Malcolm H. Merrill, M.D., Berkeley, California

Brief reference will be made to historic incidents of acute illness from community air pollution. Recent trends in changes of community air quality in metropolitan areas throughout the country will be discussed. Measures that are being taken to meet this changed environment will be considered and particular attention will be given to the developments in California with reference to the establishment of community air quality standards, the development of local ordinances to meet the problem, and the establishment of State legislation concerning automotive exhaust emissions. Evidence of the effect of community air quality on health will be considered and some of the studies that are under way will be presented in an effort to further elucidate this problem.

Section on General Practice

5:00 to 6:00 P.M. (Meeting)

Chairman: J. M. McGough, M.D., Detroit
Secretary: Winslow G. Fox, M.D., Ann Arbor

"TREATMENT OF PEPTIC ULCER"

John B. Gross, M.D., Rochester, Minnesota

The dictum of Schwartz, "No acid, no ulcer," is as valid today as it was a half century ago. The aim of therapy in peptic ulcer, whether medical or surgical, is effective control of gastric acidity. The well-known medical measures employed in treating active duodenal ulcer are reviewed briefly. Rather commonly during the symptom-free intervals patients have not taken full advantage of a liberal ulcer program, designed to prevent recurrences. Surgical measures for duodenal ulcer are best reserved for those with complications.

Management of the ulcerating gastric lesion poses a special problem because of the possibility that the lesion is neoplastic. Each case must be evaluated individually. If any of the clinical evidence points toward malignancy, early operation is advisable. If all clinical evidence suggests benignity, although the patient may elect partial gastrectomy, a trial of strict medical therapy and close observation in the hospital is justifiable. Roentgenographic and gastroscopic evidence of progressive healing and continued absence of the lesion subsequently warrant continuation of medical treatment, with frequent re-examinations. As with duodenal ulcer, the supervention of complications of gastric ulcer necessitates operation.

WEDNESDAY MORNING

September 28, 1960

Second Assembly

Grand Ballroom

Chairman: Harry M. Nelson, M.D., Detroit
Secretary: Ernest P. Griffin, M.D., Flint

9:00 A.M.

"DELIVERY ROOM EMERGENCIES"

J. Robert Willson, M.D., Philadelphia, Pennsylvania
Professor and Head, Department of Obstetrics-Gynecology, Temple University School of Medicine and Hospital; Consultant at Philadelphia General Hospital and Lower Bucks County Hospital.

Both maternal and infant mortality can be reduced significantly if the various emergency situations which arise late in labor and during delivery are recognized promptly and are managed aggressively but intelligently. The major hazards for the mother are from hemorrhage, soft-tissue injury and anesthetic complications; for the infant, shoulder dystocia, delay in delivery of the aftercoming head, intrauterine anoxia, and apnea neonatorum. If proper physical equipment is available in the delivery suite and if the medical and nursing staffs are experienced and trained to handle the emergencies which may develop at any moment during what appears to be a normal delivery the lives of many infants and mothers will be saved each year.

9:30 A.M.

EXHIBITS OPEN

9:30 A.M.

"AN EVALUATION OF THE MIDLINE EPISIOTOMY AND ITS REPAIR"

Robert H. Barter, M.D., Washington, D. C.
Professor and Executive Officer, Department of Obstetrics-Gynecology, The George Washington University School of Medicine.

The problem of episiotomy and postpartum perineal pain has been undergoing careful evaluation at The George Washington University Hospital for the past ten years. It has superseded the previously-used mediolateral incision because the midline episiotomy is more anatomic, it is easier to repair, and, with the type of repair presented in the movie, the perineum is usually not the site of puerperal pain.

A small percentage of midline episiotomies will extend and become third degree lacerations. However, when an anatomic technique of repair is used there is no reason for anything but primary union to occur. Two hundred and seventy-two consecutive third degree lacerations have been repaired in this series without infection or fistula formation.

This technique for repair of midline episiotomies and third degree lacerations, with its emphasis upon simplicity and the prevention of puerperal pain, will be presented.

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M.

"ABNORMAL UTERINE BLEEDING"

Roy G. Holly, M.D., Omaha, Nebraska

Professor and Chairman, Department of Obstetrics-Gynecology, The University of Nebraska College of Medicine

Abnormal uterine bleeding is a major gynecologic problem and may arise for a variety of reasons. A practical classification will be introduced with discussion on the diagnosis and management of the more common types. Cases will be used to illustrate the different types of uterine bleeding.

11:30 A.M.

"MUTIPLE LESIONS IN THE HEAD AND NECK AREAS AND THEIR THERAPEUTIC APPROACH WITH SUPERVOLTAGE IRRADIATION"

Ruth J. Guttmann, M.D., New York, New York

Director, Department of Radiotherapy, Francis Delafield Hospital; Associate Professor of Radiology, Columbia University

A group of patients who were treated and followed for more than one malignant lesion in the head and neck region in the Radiotherapy Department of the Francis Delafield Hospital, New York City, will be presented with special emphasis on the problems which arise in the diagnosis and management of these lesions. By discussing some of the case histories, the difficulties in diagnosis and management will be pointed out, especially when one of the lesions had been treated previously by surgery or radiotherapy. The patient material is going to be divided into three groups: (1) patients who developed separate oral lesions arising from leukoplakic changes either simultaneously or at various intervals between the development of the two or more malignancies, (2) patients whose lesions were confined to the oral cavity but had started without visual evidence of precancerous conditions, and (3) patients who developed malignant lesions in widely separated areas like; for instance, tonsils and esophagus. The patients in this presentation have been treated with super-voltage therapy, either Two Million Volt or Cobalt 60 irradiation and the treatment plans, reactions in skin, bone and mucous membranes will be discussed together with the results of therapy. Kodachromes will be used for illustrations.

This group of patients is presented in order to point out the not infrequent occurrence of two primary lesions in the head and neck area, the problems in diagnosis which may arise when beginning complaints, due to the second primary, are attributed to the first one, and are not carefully followed up, thus overlooking the second primary for a long period. It also will point out the difficulties in treating these lesions with either surgery or radiotherapy and will show that supervoltage irradiation, even under difficult conditions, has been able to give good palliative results and in some of the patients, a long lasting survival.

12:00 M.

"ADENOMA AND CANCER OF COLON AND RECTUM"

Robert Turell, M.D., New York, New York

Associate Professor of Clinical Surgery, Albert Einstein College of Medicine; Associate Surgeon and Chief of Rectal Clinic, Mount Sinai Hospital

An attempt will be made to show that the existing confusion about adenomas is largely the result of their variable biologic behavior which is inevitable. A complex classification is undesirable and unjustified as the present chaos of names has clouded our clear ideas and thoughts. A familial tendency toward the development of this condition in some cases is suggested by the author's studies of four families with the finding of discrete solitary and scattered adenomas in three generations of each family. The question of metamorphic forces or transition from adenoma to carcinoma will be presented. In the present state of incomplete knowledge of the variable biologic behavior pattern of adenomas, it is believed that while adenomas in some individuals appear to have a propensity to undergo malignant transformation, adenomas in other persons may remain benign. However, since there still are no gross or microscopic criteria that will definitely enable the proctologic surgeon or the pathologist to predict a benign course for a given benign adenoma, or when malignant transformation might be expected, the author has adopted a middle-of-the-road position advising extirpation of adenomas upon recognition if only a *minority* of these lesions become cancers. The only exceptions to this policy are systemic contraindications and patients whose longevity is not expected to exceed six to twenty-four months.

The use of fractional biopsy is advised against; instead, total biopsy or the removal of the entire polyp at its base is advocated so that the pathologist would have the entire lesion for study and thus detect isolated foci of malignancy. The criteria of early diagnosis of cancer in adenomas, especially of the noninvasive variety, will be illustrated and discussed in some detail as will all forms of treatment for adenomas within and beyond the reach of the sigmoidoscope.

12:30 P.M.

END OF SECOND ASSEMBLY

WEDNESDAY AFTERNOON

September 28, 1960

Third Assembly

Grand Ballroom

Chairman: William J. Fuller, M.D., Grand Rapids

Secretary: Donald N. Sweeny, Jr., M.D., Detroit

2:00 to 3:00 P.M.

Panel on "MANAGEMENT OF INFLAMMATORY DISEASES OF THE COLON AND SMALL BOWEL"

Moderator:

Charles G. Child, 3rd., M.D., Ann Arbor, Michigan

Professor of Surgery and Chairman, Department of Surgery, University of Michigan Medical School

Panelists:

"The Treatment of Regional Enteritis and Ulcerative Colitis"

Bentley P. Colcock. M.D., Boston. Massachusetts

Surgical Staff of Lahey Clinic, New England Baptist and New England Deaconess Hospitals

Our pathologists believe that regional enteritis and ulcerative colitis are two distinct diseases. From the clinical point of view, however, they have many similarities. Both are of unknown etiology. The two may co-exist, or one may follow the other. Regional enteritis primarily affects the small intestine but may involve any region of the gastrointestinal tract from the esophagus to the sigmoid colon. In its chronic complicated phase, surgery not only offers the most satisfactory result but may be imperative. Three hundred and seventy-six patients with regional enteritus were treated at the Lahey Clinic between 1933 and 1958 and 80.8 per cent required surgical intervention. This experience indicates that radical extirpation of the involved bowel in regional enteritis offers a good chance for recovery with a minimal operative risk. Even patients who require a second or third resection have a better-than 50 per cent chance of remaining well. The operative mortality rate following 346 resections was 1.7 per cent.

Ulcerative colitis affects the large bowel and rectum and may cross the ileocecal valve and involve several inches of terminal ileum. All of these patients should have a thorough trial of medical management. From 25 to 40 per cent, depending on the severity of the disease, will require surgical treatment because of the fulminating nature of the disease, the development of a complication, or the failure of medical management. The mortality rate at the present time is extremely low—less than 1 per cent. Most of the complications formerly associated with an ileostomy have been eliminated. A well-constructed ileostomy, resection of the colon and rectum, and the modern ileostomy bag permit the complete rehabilitation of these patients.

"Diverticulitis of the Colon"

Gordon A. Donaldson. M.D., Boston. Massachusetts

Associate Visiting Surgeon, Massachusetts General Hospital; Instructor in Surgery, Harvard Medical School

Diverticulitis of the colon occurs in approximately one-third of the patients undergoing barium enema at the Massachusetts General Hospital; and some evidence of diverticulitis is found in one-third of these patients demonstrating diverticula. The frequency of diverticulosis is found to be related to age, and as the average age of our hospital population increases, problems relating to diverticulitis are expected to increase.

While diverticula of the colon can be treated successfully by medical measures in most instances, reduction in surgical morbidity and mortality in the past decade has led to changing concepts in the therapy and complications of this disease. Surgical resection of the involved segment of the bowel, when accomplished with proper technical precautions, is the most effective means of curing the more serious problems of diverticulitis, and is being employed with increasing frequency.

The major complications of diverticulitis are reviewed, and are categorized as related to recurrent attacks of pain, obstruction, bleeding, perforation, and malignancy. Over 250 patients exhibiting one or more of these problems, and subjected to surgery, are presented in case reviews. An attempt is made to correlate the specific complications of the disease to the form of surgical therapy selected; in terms of one or multiple-stage resection, and the overall mortality of 2.5 per cent is further related to the type of complication and the method of therapy.

Following properly executed resection of the colon for the complications of diverticulitis, there is a good prospect of permanent cure, with low morbidity and mortality.

3:00 to 4:00 P.M.

INTERMISSION TO VIEW EXHIBITS "CHEMOTHERAPY AS AN ADJUNCT TO SURGERY FOR MALIGNANCY"

GERALD O. McDONALD, M.D., Chicago, Illinois
Associate Professor of Surgery, University of Illinois College of Medicine

Four years ago a clinical study of the effectiveness of administering anti-cancer drugs to patients at the time of cancer surgery was initiated. This clinical experiment was the direct outgrowth of a study of the methods by which malignant disease is disseminated. As a result of this study, it has been concluded that cancer dissemination through vascular pathways occurs at a much earlier period in the life cycle of most malignancies than previously had been recognized. It has also been concluded that cancer cell implantation (wound seeding) occurs frequently and in spite of elaborate precautions observed by the operating surgeon. The incidence of wound seeding is especially high following surgery for cancer of the breast and of the head and neck.

In an effort to combat vascular dissemination, nitrogen mustard was administered to patients at the time of surgery for gastrointestinal tract and breast malignancies. To prevent wound seeding, the wound is now irrigated at the conclusion of surgery with a 0.5 per cent sodium hypochlorite solution, buffered to a pH of 9.0. It is too early to assess the benefits of this adjunct therapy, though the results obtained thus far are encouraging.

4:30 P.M.

"OBSTETRIC ANESTHESIA AND ANALGESIA TODAY"

JOHN J. BONICA, M.D., Tacoma, Washington
Director of Anesthesiology, Tacoma General Hospital, Mt. View General Hospital; Consultant in Anesthesiology, University of Washington School of Medicine, Madigan Army Hospital, Veterans Administration Hospital; Associate in Anatomy, University of Washington School of Medicine

The provision of analgesia during the first stage of labor and anesthesia for the delivery is one of the physician's most important obligations to obstetric patients. Since the general practitioner participates in the majority of deliveries in the United States, this aspect of medical practice is of particular interest to him. Regardless of whether he delivers the patient, administers the anesthetic, or both, it is essential that he have adequate knowledge of the various methods of pain relief that are presently available.

In selecting the optimal methods and drugs, it is essential to consider many factors, including the physical and mental status of the mother, the condition of the baby, the presence of obstetric and medical complications, the experience and the practice of the physician performing the delivery, and, most important, the ability and experience of the individual administering the anesthetic. There are many techniques and drugs available that fulfill the requirements of each individual case. Due considerations must be given not only to the advantages of each method but to the disadvantages, the potential hazards and complications.

An essential requisite for best results in obstetric anesthesia and analgesia is cooperation between physicians doing deliveries and physicians giving anesthesia. Relief of pain during the first stage may be effected by psychologic preparation of the mother, the use of certain systemic drugs, inhalation analgesic agents, and/or conduction methods. Medication to produce analgesia should not begin until uterine contractions occur not less than four minutes apart and last at least thirty-five seconds, with the cervix dilated to 3 cm. Sedatives must not be confused with analgesics and narcotics, and the respiratory effects of various drugs must be watched most carefully. Any of the general or regional anesthetic methods may be used effectively to produce anesthesia during delivery. There is no one method of anesthesia that is best for all obstetric patients.

The several methods of general anesthesia, like the methods for regional anesthesia, have specific advantages and disadvantages. Some methods are more likely than others to delay the onset of spontaneous breathing in the infant, and it is the responsibility of the obstetric team to make sure that the infant is not harmed by hypoxia. Proper application of these methods will provide optimal pain relief with minimal or no effects on the mother and infant. However, should the infant's condition be depressed, it is the responsibility of the obstetric team to institute resuscitative measures.

5:00 P.M.

END OF THIRD ASSEMBLY

WEDNESDAY AFTERNOON

September 28, 1960

Program of Sections

Section on Surgery

Chairman: ROBERT E. L. BERRY, M.D., Ann Arbor
Secretary: DONALD N. SWEENY, JR., M.D., Detroit

5:00 to 6:00 P.M. (Meeting)

"PANCREATIC DUODENAL NEOPLASIA AND INFLAMMATIONS"

CHARLES G. CHILD, 3rd., M.D., Ann Arbor

Section on Obstetrics and Gynecology and Michigan Society of Obstetrics and Gynecology

Chairman: WARREN R. MOORE, M.D., Detroit
Secretary: CHARLES M. BELL, M.D., Grand Rapids

5:00 P.M. (Meeting, Reception, and Dinner)

(Subject to be Announced)

ROY G. HOLLY, M.D., Omaha, Nebraska

Section on Radiology

Chairman: E. P. GRIFFIN, M.D., Flint

5:00 to 6:00 P.M. (Meeting)

"MANAGEMENT AND RESULTS IN THE TREATMENT OF INOPERABLE CARCINOMA OF THE LUNG WITH TWO MILLION VOLT IRRADIATION AS COMPARED TO THE RESULTS OF TREATMENT WITH LOWER VOLTAGES."

RUTH J. GUTTMANN, M.D., New York, New York

One hundred fifty three cases of advanced carcinoma of the lung, which had spread in all cases to adjacent organs and/or distant lymph node-bearing areas, have been surveyed.

Most of the patients have been treated with a 2 MV roentgen-ray unit, some with a Cobalt 60 unit. Most impressive during

the treatment were the excellent tolerance which the patients exhibited, the almost regularly displayed symptomatic improvement, and the most gratifying objective success in many patients. Among the observations made in the course of this special study, three are of considerable interest: (1) The missing correlation between clinical success and roentgenologic findings, (2) the apparently greater response of malignant lesions of the epithelium compared with those of glandular tissue, and (3) the microscopic proof that it is possible to sterilize even a large carcinoma of the lung with external radiation. The ultimate results as far as survival time is concerned will be shown next, and will be compared with a second similar group of patients who were treated with 250KV therapy and a third group of patients who were treated with One Million Volt irradiation.

Section on Anesthesiology and Michigan Society of Anesthesiologists

Chairman: George C. Frederickson, M.D., Detroit

5:00 to 6:00 P.M. (Meeting)

"REGIONAL ANESTHESIA IN 1960: A REAPPRAISAL"

John J. Bonica, M.D., Tacoma, Washington

During the past two decades many significant changes have been made in anesthesiology, both in concept and in clinical practice. These changes have been due not only to the ever-changing patterns characteristic of medicine as a whole but to certain factors peculiar to anesthesiology itself. Of these the most important by far is the increase in the number of physicians who have entered this specialty since World War II, which demonstrated emphatically the need for trained anesthesiologists and precipitated the interest in this field.

The recent progress in surgery has further emphasized the urgent need for commensurate improvements in anesthetic care. The advent of ultraradical surgical invasion of certain organs, which before had been considered forbidden, prompted anesthesiologists to hazard procedures notable for the liberties taken with vital processes. These physiologic trespasses, which concern total muscular paralysis, marked the reduction of blood pressure and temperature, and asystole, are now considered to be justifiable risks which may be taken in order to make certain operations possible. One of the outstanding developments, and the one which next to the advent of the anesthesiologist is the most significant, is the full appreciation by most seriously thinking surgeons, obstetricians, and anesthesiologists of the concept that the administrator is far more important than the drug, technique, or method being employed. Critical evaluation of various methods has re-emphasized that, in the hands of the skilled physician, any method may be employed to the advantage of the patient. Differences in indications, advantages, disadvantages, and complication of various techniques have become significantly less important than before.

All of these factors have had a profound effect on the practice of regional anesthesia, and they indicate an obvious need for reassessment of the method in order to place it in proper perspective. The following opinions are based on experience gained by personal administration, supervision, and teaching of all methods of anesthesia during the past fifteen years and by recent observations of practices carried out in many medical centers in the United States and abroad.

In order to obtain good results with regional anesthesia, it is essential to have thorough knowledge of neuroanatomy, the various block techniques, the pharmacologic properties of the local anesthetic drugs, and possible complications with prophylaxis and treatment. Proper psychologic and pharmacologic preparation of the patient is important. Regional anesthesia is particularly useful as a diagnostic, prognostic, and therapeutic tool in the management of intractable pain and various other medical disorders.

In properly selected cases, regional anesthesia offers advantages to the patient and the physician which are difficult to duplicate with general anesthesia. It is particularly useful in emergencies and in operations of the extremities, lower abdomen, back and superficial parts of the body. It produces fewer physiologic disturbances during the operation and fewer postoperative complications. In obstetrics it may be preferred because of the benefits derived by the mother and infant. It offers the surgeon and obstetrician optimal operating conditions.

Modern balanced general anesthesia, consisting of light inhalation and/or intravenous anesthesia and muscle relaxants, is superior to regional techniques in major operations of the head, neck and intracranial cavity, in pulmonary surgery, and in other major operations within the chest. Balanced general anesthesia is more practical in the surgery of the upper abdominal cavity than regional anesthesia. In addition to providing better operating conditions for the surgeon, this method obviates discomfort and certain complications, such as hypotension and hypoventilation, which are particularly important problems in poor-risk patients.

THURSDAY MORNING

September 29, 1960

Fourth Assembly

Grand Ballroom

Chairman: Don Marshall, M.D., Kalamazoo
Secretary: John N. Grekin, M.D., Detroit

9:00 to 10:00 A.M.

Panel on "RECENT ADVANCES IN ALLERGIC SKIN DISEASES"

Moderator:

Clarence S. Livingood, M.D., Detroit, Michigan
Chairman, Department of Dermatology, Henry Ford Hospital

Participants:

Rudolf L. Baer, M.D., New York, New York
Professor of Clinical Dermatology and Syphilology, New York University Postgraduate Medical School; Senior Editor, Year Book of Dermatology

Donald J. Birmingham, M.D., Cincinnati, Ohio
Chief Dermatologist, Occupational Health Program; Medical Director, United States Public Health Service

9:30 A.M.

EXHIBITS OPEN

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M.

"THE NEURO-OPHTHALMOLOGIC EXAMINATION OF PATIENTS WITH STROKE"

Robert W. Hollenhorst, M.D., Rochester, Minnesota
Consultant in Ophthalmology, Mayo Clinic; Associate Professor in Ophthalmology, Mayo Foundation, Graduate School, University of Minnesota

Ocular symptoms or signs occur among two-thirds of all patients who have occlusive disease in the carotid or vertebral-basilar arterial systems. These ocular manifestations are exceedingly varied, but usually serve as a very reliable guide to the identity of the occluded artery. The ocular movements, the visual pathways, or the pupils may be affected in various ways.

Patients who have occlusive involvement of a cartoid artery may suffer from amaurosis fugax on the affected side or may actually have occluded retinal arterioles from thrombosis or embolism, or there may be incongruous homonymous hemianopsia. Anisocoria may be present. Ischemic patches in the retina or dilated vessels in the eye on the affected side are often seen. Blood pressure in the eye on the affected side is lowered in 75 per cent of cases.

Patients who have occlusive disease of the vertebral-basiliar artery system often have bilateral signs and suffer from such symptoms as blurred vision, diplopia, and transient or permanent homonymous hemianopsia. Objective signs include nystagmus or paralysis of conjugate gaze, ocular muscle paralysis, internuclear ophthalmoplegia, pupillary abnormalities, visual field defects, and great elevation of the ophthalmic artery blood pressure.

The neuro-ophthalmologic approach to diagnosis of these conditions will be discussed.

11:30 A.M.

"THE SIGNIFICANCE OF THE LUMP IN THE NECK"

John J. Conley, M.D., New York, New York
Director, Head and Neck Department, Pack Medical Group; Chief, Head and Neck Service, St. Vincent's Hospital; Clinical Professor of Otolaryngology, Columbia University.

12:00 M.

"MANAGEMENT OF URINARY TRACT INFECTIONS"

HARRY M. SPENCE, M.D., Dallas, Texas

Clinical Professor of Urology and Chairman of Division, University of Texas, Southwestern Medical School; Urologist, Dallas Medical and Surgical Clinic; Attending Urologist, Baylor Medical Center and Gaston Hospital; Consultant in Urology, Texas Children's and Veterans Administration Hospitals

The development of highly effective anti-microbial agents has greatly transformed the management of infections of the genito-urinary tract. Certain fundamental principles of management, however, remain unchanged. These are reviewed in this paper. The orderly diagnostic approach is emphasized. Demonstration of a normal urinary tract both as to structure and function by excretory urography prior to elaborate bacteriological studies is recommended. The role of cultures is assessed. Successful treatment depends upon adequate diagnostic studies.

12:30 P.M.

END OF FOURTH ASSEMBLY

THURSDAY AFTERNOON

September 29, 1960

Fifth Assembly

Grand Ballroom

Chairman: (Name to be Announced)
Secretary: H. T. KNOBLOCH, M.D., Bay City

2:00 to 3:00 P.M.

Panel on "UROLOGICAL PROBLEMS IN PEDIATRICS"

Moderator:

HARRY A. TOWSLEY, M.D.

Associate Director, Department of Postgraduate Medicine, University of Michigan; Professor, University of Michigan Medical School

Participants:

"Management of Renal Failure in Children"

MITCHELL I. RUBIN, M.D., Buffalo, New York

Professor and Head of Department of Pediatrics, University of Buffalo; Pediatrician-in-Chief, Children's Hospital of Buffalo

Renal failure in children may result from a primary disease in the kidney and may be acute or chronic, reversible or irreversible. Failure may also result from extrarenal conditions, such as dehydration, sodium loss, hemorrhage, and shock.

In order to properly treat renal failure, it is important that the physician have a clear understanding of the physiologic and biochemical disruption occurring during failure. These will be discussed.

The kidney has many functions and in failure certain functions may be disturbed, while others are maintained. A knowledge of the specific functional loss forms a basis for therapy. Therapy may be directed to the extrarenal causes of failure as well as to the specific renal disorder.

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THE EXHIBITS — JOIN THEM!

"Urological Problems in Infants and Children"

VINCENT J. O'CONOR, M.D., Chicago, Illinois

Professor and Head of Department of Urology, Northwestern University Medical School

The basic principles of adult urology have an equal application to children. However, the physical and psychological needs are entirely different from those of adult patients. Cooperation of the pediatrician with the urologist is most important. A very high percentage of urological disorders present no obvious symptoms until serious damage has been done. Congenital abnormalities make up the basis for urological disease in the greatest proportion of cases.

Congenital deformities may be external and obvious or internal and silent.

In childhood, even the neoplasms are commonly embryonic as are the various types of cystic disease and intersex.

In infants and children, the symptoms of urinary tract disease are not immediately recognized by the parents so that the pediatrician or family physician must be on the alert to direct urological investigation even when the complaints are such as vomiting, loss of weight or general malnutrition.

General considerations will be amplified in the discussion.

3:00 P.M.

INTERMISSION TO VIEW EXHIBITS

4:00 to 5:00 P.M.

Discussion of "THE PSYCHOLOGICAL AND PSYCHIATRIC PROBLEMS IN INDUSTRY"

Moderator:

LEONARD E. HIMLER, M.D., Ann Arbor, Michigan

Chief of Staff, Mercywood Sanitarium; Associate Professor of Mental Health, School of Public Health, University of Michigan

Physicians who serve in industry in either full or part-time capacity must be concerned with the various human factors and personality disturbances which impair occupational adjustment.

In order to bring proper remedial measures to bear in this special area, it is first necessary to recognize the types of symptoms which are indicative of possible psychologic or psychiatric disorder. The five most prominent among these are absenteeism, repeated accidents, problem drinking, excessive complaints for minor conditions, and unduly frequent dispensary visits.

Psychologic treatment of individual problems in the industrial setting is of necessity limited to what have been termed first-aid measures. An important part of this task can be delegated to industrial nurses and supervisors, both of whom are in effect front-line practitioners of human relations.

A preventive mental health program for industry requires alertness to situational "triggers" of job tension and to damaging interpersonal conflicts. Effective community relationships and active collaboration with psychiatric consultants are essential for the proper placement and management of employes with some degree of emotional handicap. This is particularly important with respect to workers returning to work after recovery from mental illness.

Participants:

R. LOMAS WELLS, M.D., Washington, D. C.

Medical Director, the Chesapeake and Potomac Telephone Companies; Clinical Associate Professor in Preventive Medicine, Georgetown University.

RALPH T. COLLINS, M.D., Rochester, New York

Consulting Neurologist and Psychiatrist, Eastman Kodak Company, Rochester, N. Y.; Chairman, Joint Committee on Mental Health in Industry, American Medical Association; Chairman, Committee on Occupational Psychiatry, American Psychiatric Association; Chairman, Subcommittee on the Mentally Restored, President's Committee for the Employment of the Handicapped; Member, Governor Rockefeller's Council on Rehabilitation; Member, Board of Directors, New York State Association of Mental Health; Instructor, Psychiatry, Department of Psychiatry, University of Rochester.

5:00 P.M.

END OF FIFTH ASSEMBLY

THURSDAY AFTERNOON

September 29, 1960

Program of Sections

Section on Nervous and Mental Diseases, Michigan Society of Neurologists and Psychiatry, and the Michigan District Branch of the American Psychiatric Association

Chairman: S. M. Gould, Jr., M.D., Ann Arbor

Secretary: R. A. Jaarsma, M.D., Flint

5:00 P.M. (Meeting, Reception, and Dinner)

"NEUROLOGY AND PSYCHIATRY AT THE WORK PLACE"

Ralph T. Collins, M.D., Rochester, New York

In any occupational setting, there is certain to be the usual neurologic and psychiatric clinical problems incident to any given group of people. The occupational physicians of those companies with medical departments should be able to handle most of these problems. However, there will always be certain more serious neurologic and psychiatric problems which the neurologist and psychiatrist (company or/and community) will be asked to care for. The community neurologist and psychiatrist can be of great help to the occupational physicians, the personnel department and to the supervisor of the employee-patient in advising them on many matters pertaining to the management and rehabilitation of the employee-patient. Also, the community neurologist and psychiatrist can aid the occupational physicians in the education of the management of all levels in the problem of the employment and re-employment of those employees who have neurologic or psychiatric disabilities.

Section on Pediatrics

Chairman: H. T. Knobloch, M.D., Bay City

Secretary: John L. Doyle, M.D., Grand Rapids

5:00 to 6:00 P.M. (Meeting)

"SOME PROBLEMS IN PEDIATRICS"

Reed M. Nesbit, M.D.. Ann Arbor, Michigan

Professor, University of Michigan Medical School

Section on Occupational Medicine

Chairman: William Jend, Jr., M.D., Detroit

Secretary: John H. Ganschow, M.D., Detroit

5:00 P.M. (Meeting and Reception)

"PROLONGED CONVALESENCE FOLLOWING UNCOMPLICATED SURGERY. WHY?"

R. Lomax Wells, M.D., Washington, D. C.

Considerable attention is now being given to the many factors influencing surgical convalescence. The shift to early ambulation has produced a re-focusing of attention on the convalescent and rehabilitation period. In many instances, surgical convalescence appears to be prolonged beyond what would appear to be a safe and reasonable period of time in view of all the known factors. Some thoughts with respect to these factors and the variables involved will be discussed.

Section on Dermatology and Syphilology

Chairman: Alice E. Palmer, M.D., Detroit

Secretary: Jack N. Grekin, M.D., Detroit

5:00 to 6:00 P.M. (Meeting)

A continuation of the morning panel on "RECENT ADVANCES IN ALLERGIC SKIN DISEASES"

Moderator:

Clarence S. Livingood, M.D., Detroit, Michigan

Participants:

Rudolf L. Baer, M.D., New York, New York

Donald J. Birmingham, M.D., Cincinnati, Ohio

Section on Otolaryngology and Detroit Oto-Laryngological Society

Chairman: John E. Magielski, M.D., Ann Arbor

Secretary: Vital E. Cortopassi, M.D., Saginaw

5:00 P.M. (Meeting, Reception, and Dinner)

"MELANOMAS OF THE HEAD AND NECK"

John J. Conley, M.D., New York, New York

Section on Ophthalmology

Chairman: Paul L. Cusick, M.D., Detroit

Secretary: Paul Van Portfliet, M.D., Grand Rapids

5:00 to 6:00 P.M. (Meeting)

"THE RETINAL ARTERIOLE IN CEREBRO-VASCULAR OCCLUSIVE DISEASE"

Robert W. Hollenhorst, M.D., Rochester, Minnesota

The pathology responsible for visual defects resulting from lesions of the ophthalmic and retinal arteries in the course of cerebrovascular occlusive disease is not yet clearly explained. That different varieties of lesions are implicated seems beyond question. The importance of accurate identification of the responsible lesions as atheromatous, fibrotic, calcific, or endarteritic processes cannot be overemphasized. Lesions must also be differentiated as of thrombotic, embolic, or spastic origin. The ophthalmologist is best qualified to assist the internist and neurologist in this matter. Correct diagnosis is of the greatest aid in the therapeutic approach to problems of cerebrovascular occlusive disease.

These problems are discussed with the aid of photographs of the various types of lesions encountered.

Section on Urology

Chairman: William Bromme, M.D., Detroit

Secretary: Harry E. Lichtwardt, M.D., Birmingham

5:00 to 6:00 P.M. (Meeting)

"VESICAL NECK OBSTRUCTION IN THE CHILD"

Harry M. Spence, M.D., Dallas, Texas

The clinical picture and diagnostic steps found helpful in the management of vesical neck obstruction in children are outlined. A personal treatment regime, including description of operative technique is presented and results tabulated.

THURSDAY EVENING

September 29, 1960

State Society Night

9:30 P.M.

Grand Ballroom

An evening of entertainment for all registrants, their ladies and guests

Cabaret-style Dance and Floor Show

Host: Michigan State Medical Society

A "REFRESHER COURSE"

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FRIDAY MORNING

September 30, 1960

Sixth Assembly

Grand Ballroom

Chairman: Howard C. Rees, M.D., Detroit

Secretary: George T. Bradley, M.D., Detroit

9:00 A.M.

THE ANDREW P. BIDDLE, M.D., LECTURE "IS PRESENILE ATHEROSCLEROSIS PREVENTABLE?"

Paul Dudley White, M.D., Boston, Massachusetts

President, International Society of Cardiology Foundation; Consultant in Medicine, Massachusetts General Hospital

The most dangerous hazard to health in this country today is atherosclerosis which so often affects seriously not only the coronary circulation supplying the heart muscle with blood but also the arteries to the brain and to other parts of the body. It is the same disease affecting the intima of many middle-sized arteries as it is of the aorta. It far exceeds in its threat to life and health the threats of cancer and automobile accidents, serious as they are too. In fact it is itself sometimes responsible for accidents on the road because so many drivers of automobiles (as well as so many pedestrians) have serious coronary or cerebral atherosclerosis and suffer attacks while on the road.

The disease is still a mystery as to its pathogenesis and early evolution although the pathologic picture is now quite clear and we all recognize that it is important not only to scrutinize the coronary arteries in all their ramifications but also the arteries supplying the brain (for example, the internal carotids and the vertebrals) which has not been the custom until the last few years.

It is now well known also that some hypertension—such a serious threat to health—is due to atherosclerosis of the renal arteries producing the Goldblatt clamp effect and that intermittent claudication is due to the involvement of the iliac and femoral arteries, as pointed out by René Leriche many years ago.

Thus, atherosclerosis is an extraordinarily interesting polymorphic disease with many manifestations requiring the first priority in research, which happily it is beginning to get. In order to control it we must concentrate time, money, and the ablest investigators during the next decade or two. I believe that, at least in youth and middle age in our male citizens who are especially hard hit, we shall succeed in reducing materially this threat to the health, happiness, and longevity of our people—not only among our leading citizens but throughout all walks of life. Whether this will be done by better regulation of the ways of life—for example, through control of diet, physical exercise, stress and strain, and use of tobacco, we cannot yet tell, but one thing is quite certain that we should pick out especially, as early in life as possible, the candidates for the disease and protect them first.

9:30 A.M.

EXHIBITS OPEN

9:30 A.M.

"MALABSORPTIVE SYNDROMES — CONSIDERATIONS IN DIAGNOSIS AND TREATMENT"

E. Clinton Texter, Jr., M.D., Chicago, Illinois

Associate Professor of Medicine and Director of Training Program in Gastroenterology, Northwestern University Medical School; Attending Physician, Passavant Memorial Hospital; Chief of Gastroenterology Section, Veterans Administration Research Hospital, Chicago

The functions of the gastrointestinal tract include motility, secretion, digestion, absorption, storage and excretion. All of the other functions are largely ancillary to the basic process of absorption. Until recent years, the factors responsible for absorption were largely neglected. Absorption is still a complex and poorly understood subject.

However, with the availability of new diagnostic techniques, an increased incidence and variety of malabsorptive disorders has been recognized. The clinical manifestations may be variable. Diarrhea is present about 85 per cent of the time. Other mani-

festations include hemorrhagic phenomena, tetany, osteomalacia and/or osteoporosis, general malnutrition, edema, amenorrhea, megaloblastic or iron deficiency anemia, glossitis and cheilosis and peripheral neuritis. The most striking absorptive defect accompanying the broad spectrum malabsorptive syndromes is steatorrhea.

Special diagnostic studies include roentgen study of the small intestine, gross examination of the stool, fat balance techniques, use of radioactive labeled fats, the serum carotene and carotene tolerance tests, the d-xylose test, pancreatic and liver function tests and biopsy of the small intestine. The value and limitations of these tests will be discussed in terms of reliability, simplicity and availability in clinical practice.

The primary malabsorptive syndromes (celiac disease and sprue) are decreasing in frequency. The role of gluten-free diet and adrenal corticosteroids in treatment will be discussed.

On the other hand, secondary malabsorptive syndromes are becoming more frequently recognized. In order of frequency, these include: malabsorption secondary to gastrointestinal surgery or loss of absorptive surface; diffuse pancreatic disease; regional enteritis and enterocolitis and hepato-biliary disease. Uncommon causes include: lymphoma, Hodgkin's disease and tuberculosis; Whipple's disease; scleroderma; anyloid disease; fistula, blind loop and massive small intestinal diverticula syndromes; the Zollinger-Ellison syndrome; the carcinoid syndrome; extensive pneumatosis cystoides intestinales; radiation injury; Henock-Schoenlein purpura; malabsorption following neomycin administration and steatorrhea accompanying endocrine or congenital disease.

The diagnostic features and laboratory findings will be illustrated with appropriate case reports. Treatment, including results with two potent pancreatic concentrates, will be discussed.

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M. to 12:00 M.

Panel on "THE TIRED MOTHER SYNDROME"

Moderator: (Name to be Announced)

Participants:

C. Knight Aldrich, M.D., Chicago, Illinois

Professor and Chairman, Department of Psychiatry, University of Chicago

Leonard L. Lovshin, M.D., Cleveland, Ohio

Head of Department of General Internal Medicine, Cleveland Clinic

So many mothers complain of fatigue that it should hardly be regarded as an abnormal condition. This fatigue is seldom due to organic disease; there are just too many things for our young mothers to do and too short a time in which to do them. A tired mother is not necessarily maladjusted—she is spent; not burdened with guilt—merely overly conscientious, and most important of all, she is not sick—just tired. Many of us physicians in our enthusiasm for therapy treat these poor tired mothers with injections, pills and potions when what is really needed is a rest, a change of scenery, or even a bit of recognition for a job well done.

A study was made of mothers who came in for a physical checkup because of various complaints. Forty-eight of sixty complained of being tired; none of them had significant organic disease. Many of these nice, over-conscientious women were being treated for various substituted organic-sounding illnesses like anemia, low blood pressure, hypometabolism, change of life, et cetera. Another favorite method of management was to blame the fatigue on some innocuous habit and forbid the ingestion of various things like coffee, tea, soft drinks, or alcohol.

A discussion of the findings will be presented and suggestions for treatment will be given. It should be noted that the last generation of tired mothers came through it all very well and that now as grandmothers they think back misty-eyed to days long ago and wish they return to that period of woman's greatest productivity, those glorious days when the children were young, the demands great, the time too short—those wonderful days when they, as mothers, were enthusiastic, hard-working, and very very tired.

12:00 M.

"STORAGE IRON IN MARROW OBTAINED BY ASPIRATION BIOPSY"

R. Dorothy Sundberg, M.D., Minneapolis, Minnesota

Professor of Anatomy and Chief Hematologist, University of Minnesota Hospital Laboratories, University of Minnesota

Iron is transported to the marrow by the plasma or the erythrocytes. In the plasma or serum, iron is usually bound to transferrin, a B_1 globulin, but when large amounts of iron enter the blood stream very rapidly, it is believed that this iron is in the low molecular or ionized form rather than bound. The iron which is measured as serum iron is derived from absorbed or injected iron and from storage iron. The storage iron of the marrow is located chiefly in phagocytic reticulo-endothelial cells; it has been derived from the breakdown of erythrocytes within these cells and from the iron transported by the plasma. Particulate iron in normoblasts and erythrocytes is also a form of storage iron.

The amount of "stainable" non-hemoglobin iron in the marrow can be estimated from various types of preparations. These include dry films, squashed particles, and sections of marrow. Any of these types of preparations when subjected to the Prussian blue reaction will be "stained" for ferric iron, the iron having become a vivid blue green color. This Prussian blue "staining" may be employed with or without a counterstain or, more interestingly, after some definitive stain (for example, Wright's stain). With the latter technique, it is possible to "stain" old slides for iron or to locate cells believed to contain iron, mark them in some way and then "stain" them to confirm or disprove the presence of iron. In these preparations, iron can often be demonstrated in the cytoplasm of reticuloendothelial cells, normoblasts, and erythrocytes. In normoblasts and erythrocytes it can be distinguished from ribonucleic acid and from Jolly bodies.

Marcel Bessis of Paris has provided electron-microscopic evidence that one method by which erythrocytes get iron includes the transfer of molecules of ferritin from reticulo-endothelial cells to normoblasts. Normoblasts in the perireticular position are thought to suck in the ferritin by a process comparable to nursing. When iron is excessive and when particulate iron is present in normoblasts (sideroblasts) and erythrocytes (siderocytes), this process can be appreciated in iron "stained" films of marrow. Here the particulate iron represents excess iron, not the iron expected to be utilized in the formation of hemoglobin. The presence of grains of iron which would presumably be used for the formation of hemoglobin, however, has been demonstrated in all stages of normoblasts by radio-autography.

The bone marrow is the most convenient organ to sample for assessing the amount of storage iron. It is realized that it would not be convenient to estimate the storage iron of every patient believed to have an iron deficiency anemia on the basis of an hypocromic anemia and consistent historic, physical, and laboratory findings. However, if iron therapy fails to bring about a significant rise in the hemoglobin in three weeks, one should realize that something other than simple iron deficiency may be responsible for therapeutic failure. At this point, if not before, estimation of the amount of iron in the serum and marrow is suggested.

Storage iron is decreased or virtually absent in the marrow in the hypochromic anemias resulting from deficient intake or absorption of iron, or from excessive loss of iron through hemorrhage. Storage iron is similarly decreased in many cases of polycythemia vera. In these conditions, deficient storage iron is associated with a low serum iron.

In most other anemias or primary blood diseases, storage iron is normal or increased. This can be determined from examination of the marrow more accurately than from the serum iron, for the latter may be low when storage iron is greatly increased.

The increased storage iron of hemolytic, megaloblastic, refractory, and aplastic anemias is understandable. The amount of iron accumulated from destroyed erythrocytes or from the plasma exceeds that utilized in the formation of erythrocytes in each of these conditions. The serum iron is usually normal or increased.

Conditions in which hypochromic anemia and low, normal, or increased serum iron and storage iron are found in various combinations are numerous. Some of these are the *hereditary hemolytic anemias* associated with abnormal hemoglobins (in this group the most commonly encountered offender is Thalassemia minor), the *anemias of chronic infections, rheumatoid arthritis, myxedema, uremia, liver disease*, and *malignancy*.

In these conditions, when storage iron is increased, iron therapy is not recommended.

The pattern of storage of iron in hemochromatosis is of particular interest. Here the parenchymal cells of the marrow (in this instance, the normoblasts) may be more heavily laden with iron than the phagocytic reticular cells. The diagnosis of hemochromatosis may be strongly suggested on the basis of findings in the marrow (sideroblastosis and siderocytosis with varying amounts of iron in reticular cells, plasma cells, and lymphocytes). The hemochromatosis may or may not be associated with anemia. If anemia is present, the sideroblastosis and siderocytosis are often more pronounced than in any other condition. In this type of anemia, transfusions and iron therapy are detrimental and should be avoided if possible. Patients with hemochromatosis may be benefited by phlebotomies even when anemia is present.

12:30 P.M.

END OF SIXTH ASSEMBLY

12:30 P.M.

FINAL INTERMISSION TO VIEW EXHIBITS

FRIDAY AFTERNOON

September 30, 1960

Program of Sections

Section on Pathology and Michigan Pathological Society

Chairman: James G. Wolter, M.D., Detroit

(Afternoon Meeting, Reception, and Dinner)

"INTERPRETATIONS FROM PERIPHERAL BLOOD"

R. Dorothy Sundberg, M.D., Minneapolis, Minnesota

This will include an illustrated discussion of the patterns expected in the blood in anemias, leukemias, infectious mononucleosis, infectious lymphocytosis, German measles and conditions associated with space-occupying lesions of the bone marrow. The student participants will have slides to examine from twelve to fifteen cases in which the blood picture is of positive diagnostic value. These cases will be discussed, and illustrations from them or from similar cases will be presented. The manner in which the findings in the blood reflect the pathologic changes in the bone marrow, lymph nodes, and spleen will be elucidated.

Section on Gastroenterology and Proctology

Chairman: Lyle E. Heavner, M.D., Grosse Pointe Farms

Secretary: George T. Bradley, M.D., Detroit

1:00 P.M. (Luncheon-meeting)

"ESOPHAGEAL FUNCTION IN HEALTH AND DISEASE"

E. Clinton Texter, Jr., M.D., Chicago, Illinois

The correlative studies the authors have been carrying out in the last few years, using intraluminal pressure measurements, fluoroscopy and fluorocinematography in an attempt to delineate some of the functions of the esophagus in health, will be presented. Of particular interest is the nature of the closing mechanism at gastro-esophageal junction. These studies have also been extended to disease states including achalasia, hiatal hernia, scleroderma and diffuse spasm.

END OF 1960 ANNUAL SESSION

MUCH THAT IS NEW AND USABLE

WILL BE FOUND AT THE

MSMS EXHIBIT

THE CONTRIBUTION OF THE SCIENTIFIC AND TECHNICAL EXHIBIT

The Michigan State Medical Society has always felt that the scientific and technical exhibit is an essential part of the educational process of its Annual Sessions. A considerable proportion of medical research is sponsored by many institutions and manufacturers whose displays are part of our exhibit. Year in and year out, they make substantial contributions to progress in Medicine. This year, they offer many new ideas in therapy and techniques.

Doctors of medicine are invited and urged to inspect the exhibits, to examine products and services, and to question the exhibitors on "what's new for me to use?" Discuss with these well-trained and informed exhibitors the uses of the products of their laboratories. Sample their professional knowledge, which is an adjunct to the scientific talks and other presentations of the MSMS Annual Session, all congregated in one spot for you, Doctor, so that you may serve the public better.

Annual Committee Reports

ANNUAL REPORT OF COMMITTEE ON MENTAL HEALTH—1959-1960

During the year ending June 1960, the Committee on Mental Health held four general meetings and one joint meeting with our MSMS Geriatrics Committee.

The MSMS Presidential Project has been a valuable theme for study throughout the year. The Committee favored concentration upon unified medicine's two most effective, on-going, health education programs: (1) for the physician, (2) for the patient.

The Chairman represented MSMS at the highly successful Kalamazoo State Hospital Centennial Celebration.

A subcommittee chaired by Dr. Raymond W. Waggoner has worked upon the Mental Health Number of our MSMS JOURNAL (September, 1960).

Narcotics addiction has been studied as a grievous public health problem.

The Committee recommended to The Council that the MSMS Legislative Committee give study to "Interstate Compact On Mental Health."

The Committee requested that The Council reaffirm its stand that the practice of psychotherapy is the practice of medicine.

Mental health developments associated with aging have been investigated.

A number of mental health bills introduced into the state legislature have been studied.

A partial report of the AMA's 6th Annual Conference of Mental Health Representatives of State Medical Associations held in May of 1959 was reviewed.

The Committee recommended approval of the stand of the American Association of University Women with respect to the request to build the children's units at Northville, Ypsilanti, Pontiac, Traverse City, and Kalamazoo State Hospitals.

Alcoholism as a serious public health problem was referred to the Committee on Alcoholism for study and report to the Mental Health Committee.

The Committee approved the Wayne County Medical Society's resolution entitled "After-care of the Mentally Ill Patient."

The Committee has systematically aimed at advancing the practicality of psychiatry for its use by every M.D.

The Chairman thanks every member of his Committee for the finest kind of collaboration and inspiration.

Respectfully submitted,

J. M. DORSEY, M.D., *Chairman*
Z. S. BOHN, M.D., *Vice Chairman*
C. P. BARKER, M.D.
H. W. BIRD, M.D.
P. N. BROWN, M.D.
W. E. CLARK, M.D.
R. O. CREAGER, M.D.
T. J. HELDT, M.D.
A. H. HIRSCHFELD, M.D.
L. N. HERSHEY, M.D.
W. T. HYSLOP, M.D.
R. A. JAARSMA, M.D.
R. F. KERNKAMP, M.D.
I. A. LACORE, M.D.
M. H. MARKS, M.D.
J. J. MARRA, M.D.
C. J. MUMBY, M.D.
W. H. OBENAUF, M.D.
D. D. SALON, M.D.
R. W. WAGGONER, M.D.
H. B. ZEMMER, M.D., *Advisor*

ANNUAL REPORT OF MATERNAL HEALTH COMMITTEE—1959-1960

Three meetings were held this year in Detroit, Ann Arbor, and Kalamazoo. The Detroit meeting was largely organizational. The Ann Arbor meeting was attended by the regional consultants who locally compile statistics on maternal mortality victims. The business meeting was brief. Several maternal deaths were evaluated by the Central Maternal Mortality Evaluation Sub-Committee to demonstrate manner in which these evaluations are conducted. The group was taken through the Woman's Hospital and then introduced to the Maternity Mortality Registry. Dr. A. J. French of the Pathology Department was our generous host. In the evening we assembled for dinner and a presentation of the current staphylococcus situation which was presented by members of our Committee and Dr. Norman D. Henderson of the State Health Department.

The Kalamazoo meeting reviewed our year's activity and outlined the program for next year. In the evening Mr. Robert Barstow discussed his ideas of the doctor's community responsibility.

The Maternal Health Committee and the State Health Department and the Clara Elizabeth Fund will cooperate in the program at Waldon Woods, May 25-26 for the teachers of expectant parents education. This has become an annual spring presentation.

The Obstetrical Brevets are being published by THE JOURNAL, MSMS, each month. Various members of the Committee have written the different editorials. The subject material is largely taken from the maternal mortality study.

The tissue registry has expanded to include interesting perinatal pathology material. Dr. A. J. French feels that soon the Department will be expanded enough to handle all such specimens available in the State.

I wish to thank the members of the Committee, the State Health Department, and the interested doctors throughout the State who have combined to make this a successful year.

Respectfully submitted.

FRANCIS A. JONES, M.D., *Chairman*
H. A. OTT, M.D., *Vice Chairman*
F. W. BALD, M.D.
C. A. BEHNEY, M.D.
C. M. BELL, M.D.
H. R. BRUKARDT, M.D.
G. B. CORNELIUSON, M.D.
C. E. DARLING, M.D.
A. L. FOLEY, M.D.
E. C. GALSTERER, M.D.
W. F. GOINS, M.D.
J. E. HARRYMAN, M.D.
E. F. HERSEY, M.D.
WM. W. JACK, M.D.
W. C. LAMBERT, M.D.
H. W. LONGYEAR, M.D.
A. G. MCQUAIG, M.D.
N. F. MILLER, M.D.
H. R. MOOI, M.D.
A. C. RUTZEN, M.D.
H. W. SILL, M.D.
C. S. STEVENSON, M.D.
P. E. SUTTON, M.D.
D. W. THORUP, M.D.
J. H. TISDEL, M.D.
C. E. TOSHACH, M.D.
R. F. TRESCOTT, M.D.
H. R. WILLIAMS, M.D.
MARY LOU BYRD, M.D., *Advisor*

ANNUAL REPORT OF IODIZED SALT COMMITTEE—1959-1960

An exhibit on iodized salt was presented at the Annual Session of the Michigan State Medical Society in Grand Rapids in September 1959. This was largely due to the efforts of Dr. J. K. Altland and the State Health Department with suggestions from the rest of the Committee. This was a part of our continuing program on education of the doctors and citizens of Michigan as to the importance of always using iodized salt.

A World Congress on goiter is being held in London, England, in July 1960, and several members of our Committee are planning to attend. Our Michigan experience is to be reported. The information from other countries reported at this conference will be presented to our State Committee later this summer, and plans for the future year will be outlined.

The addition of Dr. J. K. Altland of the Department of Public Health and Dr. William H. Beierwaltes of the University of Michigan to our Committee has been very helpful and we are planning a really active year in 1960 and 1961.

Respectfully submitted,

B. E. Brush, M.D., *Chairman*
H. A. Towsley, M.D., *Vice Chairman*
J. K. Altland, M.D.
Wm. H. Beierwaltes, M.D.
J. R. Carney, M.D.
R. L. Waggoner, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY—1959-1960

The Committee started its term with a most enjoyable breakfast with the officers of the Woman's Auxiliary during the House of Delegates Session in Grand Rapids last October. It was the feeling at that time that a program of "official" instructions should be presented to the Auxiliary to help them settle matters of policy both on a State and county level. In the past and during this year, the Advisory Committee has functioned primarily in an advisory or guidance capacity, and has become active only at the request of the Auxiliary. Perhaps this is a defect that should be considered by next year's Committee.

On March 30, 1960, a letter was drafted, and after approval of Mrs. Gay and the Committee members, was sent to all county secretaries requesting increased local cooperation with the Auxiliary and explaining the functions of the Advisory Committee.

The Committee has not held any formal meetings so far this year as there were no specific problems presented for action. I would hope that this inactivity does not reflect a defect in the Committee but rather an unusually effective Auxiliary. We owe a lot to our busy wives and our Committee has considered it a privilege to be associated with such an important, energetic, and outstanding Auxiliary.

Respectfully submitted,

John M. Wood, M.D., *Chairman*
A. B. Aldrich, M.D.
Wm. G. Mackersie, M.D.
E. H. Meisel, Jr., M.D.
R. E. Reagan, M.D.
D. A. Young, M.D.

ANNUAL REPORT OF COMMITTEE ON STUDY OF PREVENTION OF HIGHWAY ACCIDENTS—1959-1960

One meeting of the Committee was held, in which it moved that MSMS suggest to the Secretary of State's Office that its appeal boards henceforth require, where a medical problem exists relative to the applicant's license, that two medical certificates be required instead of the present one from each appellant. The Committee also moved that component county medical societies be urged to appoint adequate committees of at least three physicians to review those cases referred to them by the appeal boards for impartial medical opinions. This suggestion was sent out in one of the Secretary's Letters. The Committee would like to point out that there is probably no more worthwhile way for individual members of MSMS to help in the traffic safety problem than to serve on one of these committees.

The Committee also offered its services to the Secretary of State as an advisory committee on the medical aspects of licensing drivers, if he so desires.

Four members of the Committee took part in the discussions on traffic safety last fall before the four regional health conferences.

All members participated in presenting the medical aspects of the traffic safety problem before various lay groups during the year.

Respectfully submitted,

J. R. Rodger, M.D., *Chairman*
G. H. Agate, M.D.
R. T. Blackhurst, M.D.
H. E. DePree, M.D.
C. M. Hansen, M.D.
W. N. Herbert, M.D.
A. Z. Howard, M.D.
Sidney N. Lyttle, M.D.
W. D. Peterson, M.D.
C. W. Sellers, M.D.
H. J. Meier, M.D., *Advisor*

ANNUAL REPORT OF VENEREAL DISEASE CONTROL COMMITTEE—1959-1960

Two meetings were held by this committee during the year of 1959-1960, and several matters of continuing importance were considered.

The laboratories of the Michigan State Department of Health during the months of October, November and December, and the laboratories of The University of Michigan Medical Center during the months of June, July, August, September, October, November, December, and January did comparative studies between reactive Kahn tests and specific treponemal antigen tests done by the complement fixation method.

Dr. Cope reported on the results from the Michigan Department of Health Laboratories.

Reactive & Weakly Reactive Kahn Tests	Reactive & Weakly Reactive R.P.C.F. Tests	R.P.C.F. Reactive (Per Cent)
2201	787	36

During the 214 days between June 12, 1959 and January 12, 1960, the laboratories of The University of Michigan Medical Center did a total of 17,741 Kahn tests. 208 of these were reactive. There was a comparison of 39 per cent between the Kahn reactive and the R.P.C.F. reactive, which is quite similar to that obtained by the Michigan Department of Health Laboratories. In the latter study, however, approximately two Kahn nonreactive sera were chosen at random, and an R.P.C.F. test was done on these sera. Much to our surprise, 13.7 per cent of the nonreactive Kahn sera was R.P.C.F. reactive. In studying this group it has been determined that at least 85 per cent of this Kahn nonreactive, R.P.C.F. reactive group have had syphilis in the past. This led to the conclusion that a nonreactive Kahn test does not rule out old syphilis, since the R.P.C.F. test was reactive in a certain per cent of these nonreactive Kahn tests. This points to the fact that no one test can be used to do an effective screening of any population area to prove or disprove that they have syphilis. The Michigan State Department of Health Laboratories should be given encouragement to continue studies using

the Reiter Protein Complement Fixation test on all positive Kahn tests, if finances permit. It is felt that an ideal testing regimen would be a reagin test, such as the Kahn test, plus a specific antigen test, such as the R.P.C.F. test.

Doctor Schwimmer reported on a cooperative syphilis reporting program, which was instituted under his direction in Detroit. During a two-month period, fifty-eight new cases of syphilis were reported from laboratories and hospitals; only seven of these were reported voluntarily by private physicians, prior to the follow-up contact. It was felt by the committee that Doctor Schwimmer's efforts in developing this program points to the fact that there is more syphilis in many areas than is reported; that it is only through some method which stimulates a doctor to report his positive serologic tests that one can obtain any idea as to the incidence of syphilis in any large community. It was pointed out by Dr. John Cowan of the Michigan State Department of Health that the increase in primary and secondary syphilis in Michigan in 1959 was 21 per cent above 1958, and nationally this increase was 23 per cent.

Synnematin B, an antibiotic of the penicillin family but of different chemical structure, was developed by the Michigan State Department of Health Laboratories. It has been used in both the treatment of gonorrhea and syphilis, as well as meningitis in children. It has about one-seventh the toxicity of penicillin and is a compound which could well be used in the treatment of syphilis in penicillin-sensitive individuals, as well as a compound which could be used in the treatment of penicillin-resistant gonorrhea. It is still a water-soluble compound which requires more injections than the long-acting types of penicillin. Although several manufacturing companies have been given license to make this compound, none have chosen to do so. The effectiveness of this compound is being studied, both at the Wayne County Health Department by Doctor Schwimmer, and at The University of Michigan Medical Center by Dr. Albert Wheeler. It is hoped that, if further laboratory studies show it to be as good a compound as the work in the past portends, the United States Public Health Service may set it up for use in a field trial.

Dr. Frank Stiles, Jr., Chairman of the Venereal Disease Control Committee, had a sudden death from coronary occlusion in the fall of 1959. A suitable letter expressing the Committee's sorrow on the death of Frank Stiles, Jr., was drawn up and sent to Mrs. Frank Stiles, of Lansing. (Dr. Stiles died August 23, 1959.)

Respectfully submitted,
A. C. Curtis, M.D., *Chairman*
M. W. Alcorn, M.D.
V. W. Cambridge, M.D.
J. A. Cowan, M.D.
R. H. Grekin, M.D.
P. J. Hettle, M.D.
Ruth Herrick, M.D.
H. L. Keim, M.D.
R. I. Lurie, M.D.
Benjamin Schwimmer, M.D.
H. C. Tellman, M.D.
Kornelius VanGoor, M.D.
R. S. Breakey, M.D., *Advisor*
L. W. Shaffer, M.D., *Advisor*

ANNUAL REPORT OF CHILD WELFARE COMMITTEE—1959-1960

During 1959, the subcommittees of the Child Welfare Committee have, as usual, been most active.

The Subcommittee on Adoptions has followed up on the resolution discouraging doctors' participation in independent adoption which was passed by The Council last year. This State has received national recognition for this resolution. Dr. E. H. Watson, Chairman of the Subcommittee, has been active on the Adoption Committee of the Michigan Welfare League, representing the medical profession with the other disciplines interested in this problem.

The School Health Subcommittee, in cooperation with the committee of the Department of Public Instruction and State Health Department, developed a school health form which may eventually achieve universal acceptance. In addition, the Committee cooperated in the production of the sound movie, "Ready for School," an extremely fine film on the subject of the preschool child, obtainable free from the Health Department for showing to interested groups.

The Subcommittee on Otolaryngology has continued screening hearing defects in the schools throughout Michigan and is interested in preschool hearing screening as well.

The Subcommittee on Ophthalmology continued screening children in schools for visual defects, and sponsored an exhibit at the Michigan State Medical Society Convention. Of preschool children also screened, 6.1 per cent were referred to doctors for care. The Committee also cooperated in the glaucoma-detection program in Holland, Michigan. Miss Caroline Austin of the State Health Department has cooperated continually with this Committee and has published several articles on preschool and school screening for visual defects during the past year.

The Child Welfare Committee cooperated with the State Health Department in reviewing the standards for nursery care. The Committee also reviewed proposed standards for premature units that has been drawn up by the Health Department. The Committee is at present working on standards of care of the children in hospitals in pediatric units throughout the State.

The Chairman of the Committee represented the State Medical Society at the White House Conference on Youth and Children. The final resolutions have not been received from the executive committee of this conference. The Child Welfare Committee had previously participated with the State Health Department in reviewing the status of child health and welfare in the State and our own future needs. In Michigan, this summary and the resolutions from the White House Conference may well serve as guideposts for future activities of the Committee.

This Committee wishes to express its appreciation for assistance, encouragement, and cooperation of the many participating physicians, and also the Michigan Department of Health, Michigan Crippled Children Commission, Department of Public Instruction, and the executive staff of the Michigan State Medical Society.

Respectfully submitted,
R. M. Heavenrich, M.D., *Chairman*
W. S. Jones, Jr., M.D.
R. T. Blackhurst, M.D.
C. E. Booher, M.D.
H. C. Comstock, M.D.
E. L. Cooper, M.D.
G. B. Corneliuson, M.D.
A. J. Cortopassi, M.D.
Carleton Dean, M.D.
N. E. Durocher, M.D.
R. G. Ferris, M.D.
A. C. Gholz, M.D.
J. P. Klein, M.D.
O. L. Lepard, M.D.
F. J. Margolis, M.D.
Don Marshall, M.D.
R. J. Mason, M.D.
J. C. Montgomery, M.D.
W. J. Morrow, M.D.
M. H. Pike, M.D.
H. A. Towsley, M.D.
A. L. Tuuri, M.D.
E. H. Watson, M.D.
C. F. Wible, M.D.
R. K. Wise, M.D.

ANNUAL REPORT OF OCCUPATIONAL MEDICINE COMMITTEE—1959-1960

1. No formal meeting of the entire committee was held during 1959-60.

2. Several recent communications have been received from Dr. B. D. Holland, Secretary, Council on Occupational Health of the AMA, recently outlining a plan for more effective working relationship between State and AMA Council Committees.

3. A highly successful and well attended meeting of the Michigan Industrial Medical Association was held in Midland Friday, April 8, 1960, presenting an excellent scientific program. This meeting, always attended by the majority of Occupational Medicine Committee members, serves as an opportunity for informal discussion of the progress of occupational health in Michigan.

4. To stimulate and foster the aims of the Occupational Medicine Committee, it is the intention of the Chairman to shortly circularize a questionnaire to all members of the Committee, members of the Michigan Industrial Medical Association, members of the American Board of Preventive Medicine, and the American Academy of Occupational Health in Michigan to ascertain, if possible, in what manner and by what approach we can do a more effective and efficient job; and, if possible, to overcome the problem of communication between the Committee of Occupational Medicine and the physicians practicing industrial medicine and surgery in Michigan to further mutual aims.

Respectfully submitted,
O. J. Preston, M.D., *Chairman*
S. E. Andrews, M.D.
J. G. Beall, M.D.
T. I. Boileau, M.D.
E. B. Cudney, M.D.
Edwin De Jongh, M.D.
J. H. Ganschow, M.D.
E. A. Irvin, M.D.
F. E. Kolb, M.D.
D. F. Kudner, M.D.
C. P. McCord, M.D.
G. P. Moore, M.D.
R. D. Mudd, M.D.
P. J. Ochsner, M.D.
D. M. Richmond, M.D.
N. W. Scholle, M.D.
M. W. Shellman, M.D.
S. D. Steiner, M.D.
W. E. VanGelder, M.D.
A. H. Whittaker, M.D.
J. K. Wright, M.D.

ANNUAL REPORT OF TUBERCULOSIS CONTROL COMMITTEE—1959-1960

The Tuberculosis Conrol Committee met on November 18, 1959. A Subcommittee met with a committee of the Michigan Tuberculosis Association on February 2, 1960. A final committee meeting was held on June 1, 1960.

Recommendations *re* Case Finding:

1. Since tuberculosis care alone in Michigan costs taxpayers $17,000,000, a year, the tuberculosis control committee endorses continuance of tuberculosis surveys and more frequent use of hospital and office skin testing, and further urges expansion of pre-employment and hospital admissions chest-x-ray programs. It further advises that this recommendation be disseminated to each county medical society secretary.

2. All educational devices directed to the practicing physician should emphasize the *detection* of tuberculosis.

3. The committee is in favor of continuing its previous policy of devoting one issue of the Journal MSMS to tuberculosis on alternate years.

4. A Speakers Bureau should be established jointly with the Michigan Tuberculosis Association.

5. Regional tuberculosis detection programs should be encouraged.

6. The Michigan State Health Department should be encouraged to investigate methods to insure that all tuberculosis is reported, as required by law.

7. MSMS should direct its component societies to establish or reactivate Tuberculosis Control or Public Health Committees. The MSMS Tuberculosis Control Committee will be pleased to act as a consultant body.

8. The Michigan Sanatoria Directors Association should be advised of the actions approved by The Council, MSMS, and be encouraged to work in cooperation with county societies to implement and expand these recommendations, designed to speed the eradication of tuberculosis in the State of Michigan.

9. The Postgraduate Medical Education Committee should be urged to consider the inclusion of tuberculosis and diseases of the chest in its extramural postgraduate teaching program.

10. This Committee is alarmed at the lack of information on the subject of tuberculosis and recommends that one county medical society meeting be devoted to this subject at least once every three years.

Respectfully submitted,
R. L. Rapport, M.D., *Chairman*
Abraham Becker, M.D.
P. T. Chapman, M.D.
M. B. Conover, M.D.
Wm. N. Davey, M.D.
J. L. Egle, M.D.
J. L. Isbister, M.D.
A. H. Kempter, M.D.
E. J. Klopp, M.D.
C. P. Mehas, M.D.
G. H. Phillips, M.D.
R. A. Rassmussen, M.D.
A. F. Stiller, M.D.
C. J. Stringer, M.D.
J. W. Towey, M.D.
Jack Foy Wu, M.D.
Stewart Yntema, M.D.

ANNUAL REPORT OF RHEUMATIC FEVER CONTROL COMMITTEE—1959-1960

This Committee met twice since the last Annual Report to the House of Delegates of MSMS on December 16, 1959 and April 20, 1960.

In spite of excellent cooperation from the MSMS Officers, The Council, and the House of Delegates of MSMS, and from the Michigan Heart Association, a coordinator for the Rheumatic Fever Control Committee has not been located and I doubt if one will be. Primarily for this reason, the work and influence of the Committee has decreased remarkably.

At its December meeting, there was a great deal of discussion about the necessity of continuing the Committee, and the minutes of that meeting very well summarize the statements made by various members of the Committee.

The number of active Rheumatic Fever Centers around the State has decreased greatly and the reasons for this are as varied as the number of decrease.

At the April meeting of the Committee, the Chairman introduced a possible program for the five-year program of MSMS, no action was taken since the majority of members were of the opinion that this should be postponed until recommendations from The Council and House of Delegates on the five-year program are received.

Respectfully submitted,
S. T. Harris, M.D., *Chairman*
R. E. Fisher, M.D., *Vice Chairman*
E. W. Adams, M.D.
R. R. Barber, M.D.
J. G. Bielawski, M.D.
D. R. Boyd, M.D.

F. J. Chapin, M.D.
Carelton Dean. M.D.
D. P. Gage, M.D.
T. B. Hill, M.D.
C. L. Hoogerland, M.D.
J. D. Littig, M.D.
N. L. Matthews, M.D.
W. B. Prothro, M.D.
J. S. Rozan, M.D.
E. E. Schumacher, Jr., M.D.
D. S. Smith, M.D.
R. M. Stow, M.D.
B. J. Sweeney, M.D.
R. D. Tupper, M.D.
Mr. James Gerity, Jr., *Advisor*

ANNUAL REPORT OF THE SCIENTIFIC RADIO COMMITTEE—1959-1960

During the year 1959-1960, 38 programs were prepared and tape recorded for lay education throughout the state of Michigan. These programs went out over the following stations at weekly intervals: WAGN—Menominee; WBRN—Big Rapids; WKAR—East Lansing; WDET—Detroit; WCAR—Detroit; WMUZ—Detroit; WBAX—Detroit; WLDM—Detroit; WMDN—Midland; WWBC—Bay City; WHRV—Ann Arbor; WELL—Battle Creek; WBCK—Battle Creek; WDBC—Escanaba; WIBM—Jackson; WUOM—University of Michigan; WTAC—Flint; WMRP—Flint; WHAK—Rogers City; WOAP—Owosso; WKZO—Kalamazoo; WMCR—Kalamazoo; WMTE—Manistee; WMAB—Munising; WHLS—Port Huron; WSIM—St. Joseph; WSTR—Strugis.

1. *Distribution and Advertising*—There has been a considerable increase in the number of the stations carrying the program this year, from eighteen and nineteen in 1958-59 to twenty-seven in 1959-60. This may in part be due to the dropping of the AMA programs previously carried, but a greater reason for this is because Mr. Edwin Burrows of the University Broadcasting Service put on a great effort to get broader coverage throughout the state. In several instances members of various county medical societies also encouraged their local radio stations to carry these programs.

2. *Programming*—A different approach to programming was made this year in that we attempted to give a short history review of the development of medicine and medical education. There was also a series on emotional adjustments of children and adults and a rather long series on emergency first aid.

One of the particularly popular programs this year was a series on aging and the care of the aged. A departure from the usual programming included career interests in the hopes that some of the listening audience might be parents of children interested in entering medicine or nursing.

The subject material and dates of the programs given this year are shown in the accompanying table.

Your committee would like to again re-emphasize to the members of the State Medical Society that tape recordings on all of these talks are available through the Public Relations office of the State Medical Society. We would further like to re-emphasize that all physicians who are subscribers to the Audio Digest could use these tape recordings for source materials for talks which they may be called upon to give local organizations.

It is anticipated that the budget for 1960-61 will be approximately equal to the budget submitted for the year 1959-60, or $1,500.

Respectfully submitted,
H. A. Towsley, M.D., *Chairman*
S. J. Behrman, M.D.
H. R. C. Eddy, M.D.
R. D. Feeheley, M.D.
R. H. Howell, M.D.
J. W. Rice, M.D.
G. H. Scott, Ph.D.
J. M. Sheldon, M.D.
R. W. Teed, M.D.

SCIENTIFIC RADIO SERIES

Date	*No.*	*Subject*	*Speaker*
10- 2-59	1	Earliest Practices of Medicine	C. Thomas Flotte, M.D.
10- 9-59	2	The Man with a Window in his Stomach	C. Thomas Flotte, M.D.
10-16-59	3	Ephraim McDowell, Pioneer in Abdominal Surgery	C. Thomas Flotte, M.D.
10-23-59	4	Victory Over Pain	C. Thomas Flotte, M.D.
10-30-59	5	The Development of Blood Transfusions	C. Thomas Flotte, M.D.
11- 6-59	6	Serendipity in Medicine	C. Thomas Flotte, M.D.
11-13-59	7	The History of Medical Education	C. Thomas Flotte, M.D.
11-20-59	8	Medical Research in Radioactivity	Edward A. Carr, Jr., M.D. and Mrs. Audrey V. Wegst
11-27-59	9	Research on Cancer	Jere M. Bauer, M.D.
12- 4-59	10	Research on Heart Disease	Herbert E. Sloan, Jr., M.D. and Norman S. Talner, M.D.
12-11-59	11	Research in Human Genetics	Eldon H. Sutton, Ph.D.
12-18-59	12	Research in Modern Pharmacology	Harold F. Hardman, M.D.
1- 8-60	13	Emotional Adjustment of the Infant and Pre-school Child	Stuart M. Finch, M.D. and George H. Lowrey, M.D.
1-15-60	14	Emotional Adjustment of the Child in School	Stuart M. Finch, M.D. and Robert S. Fox, Ed.D.
1-22-60	15	Emotional Adjustment in Adolescence	Stuart M. Finch, M.D. and Ernest H. Watson, M.D.
1-29-60	16	Emotional Adjustment during Menopause	Stuart M. Finch, M.D. and S. J. Behrman, M.D.
2- 5-60	17	Emotional Adjustment of the Older Person	Stuart M. Finch, M.D. and Wilma T. Donahue, Ph.D.
2-12-60	18	Emergency First Aid to the Injured Eye	J. W. Smillie, M.D.
2-19-60	19	How Do People Get Burned?	Irving Feller, M.D.
2-26-60	20	First Aid to the Burned Patient	Irving Feller, M.D.
3- 4-60	21	First Aid for the Common Poisons	George H. Lowrey, M.D.
3-11-60	22	First Aid to Injured Extremities	Robert W. Bailey, M.D.
3-18-60	23	First Aid to Internal Injuries	Thurston Thieme, M.D.
3-25-60	24	First Aid to Head Injuries	Richard C. Schneider, M.D.
4- 1-60	25	The Doctor's Views on Aging	Frederick C. Swartz, M.D.
4- 8-60	26	The Doctor's Views on Aging	Frederick C. Swartz, M.D.
4-15-60	27	The Doctor's Views on Aging	Frederick C. Swartz, M.D.
4-22-60	28	How to Save Your Heart	Park W. Willis, III, M.D.
4-29-60	29	What High Blood Pressure Means to You	F. James Conway, M.D.
5- 6-60	30	What to Do if You Have High Blood Pressure	Sibley W. Hoobler, M.D.
5-13-60	31	Medical Education	William N. Hubbard, Jr., M.D., Dean
5-20-60	32	Careers in the Health Sciences	William N. Hubbard, Jr., M.D., Dean
5-27-60	33	Careers in Nursing	Rhoda F. Reddig, R.N., Dean
6- 3-60	34	The Premarital Examination	John R. G. Gosling, M.D.
6-10-60	35	Hay Fever	James A. McLean, M.D.
6-17-60	36	Asthma	James A. McLean, M.D.
6-24-60	37	Sun Stroke and Heat Exhaustion	Edgar A. Kahn, M.D.
7- 1-60	38	First Aid to the Drowned	Joe D. Morris, M.D.

ANNUAL REPORT OF THE POSTGRADUATE MEDICAL EDUCATION COMMITTEE—1959-1960

The Committee on Postgraduate Medical Education met on December 10, 1959 and May 12, 1960. The postgraduate program for the year was reviewed. Many reports on the program from chairmen in the various centers indicate that the program was a successful one in all instances. These comments were reviewed and discussed. The subjects presented, attendance, and speakers on the program were as follows:

Centers	*Fall*	*Spring*	*1959-60*
Alpena	20	20	24
Battle Creek	54	72	80
Bay City	29	—	29
Cadillac	—	20	20
Jackson	60	64	78
Lansing	—	40	40
Midland	54	—	54
Muskegon	74	64	94
Niles	30	44	52
Port Huron	34	30	47
Roscommon	13	12	16
Traverse City	61	—	61
Upper Peninsula			
Escanaba	13	16	19
Houghton	13	12	16
Iron Mountain	14	19	19
Ironwood	10	13	14
Marquette	23	21	29
Menominee	24	24	27
Sault Ste. Marie	15	17	24
	—	—	—
	541	488	743

The following subjects were presented:

Fall Program

A comparison of the medical and surgical treatment of gastric ulcer
Adolescence
Alcoholism: Liver Disease
Alcoholism: Psychiatric Problems
Congenital surgical defects in the newborn
Dermatological conditions of interest to all physicians
Differential diagnosis of chest diseases
Edema and the use of diuretic agents
Fractures of the upper extremity in children
Galactosemia with metabolic disorder
Habitual abortion
Hemangiomata
Infantile cataracts
Portal hypertension
Psychiatric techniques of interest to all physicians
Pulmonary emphysema
Recurrent dendritic ulcers in children
Squints and ptosis in children
Staphylococcus infections
Staphylococcus infections in the delivery room and nursery
Unusual dermatological conditions in children

Spring Program

Adolescence
Cardiac arrhythmias
Chemotherapy of malignant disease
Congestive heart failure
Diagnosis and treatment of arthritic conditions
Edema and diuretics
Electrolyte difficulties in liver disease
Insect and insect-sting allergy
Present concepts of enzymatic debridement
Some infection problems
Surgery of the peripheral arteries
The clinical use of coronary vasodilators
The early detection of diabetes mellitus
The treatment of vascular lesions associated with hypertension
Vascular surgery

The following named physicians participated in the teaching program: Peter P. Barlow, M.D., Samuel J. Behrman, M.D., Robert E. L. Berry, M.D., Richard J. Bing, M.D., H. Waldo Bird, M.D., Charles G. Child, III, M.D., W. N. Davey, M.D., Marion S. DeWeese, M.D., Reed O. Dingman, M.D., Stefan S. Fajans, M.D., Stuart M. Finch, M.D., C. Thomas Flotte, M.D., F. Bruce Fralick, M.D., E. Richard Harrell, M.D., John T. Hayes, M.D., Keith S. Henley, M.D., Sibley W. Hoobler, M.D., Donald R. Korst, M.D., George H. Lowrey, M.D., Wm. M. Mikkelsen, M.D., Robert A. Moore, M.D., Ernest W. Reynolds, M.D., John M. Sheldon, M.D., Harry A. Towsley, M.D., A. Burgess Vial, M.D., John M. Weller, M.D., Park W. Willis, III, M.D., Paul R. Winder, M.D., Earl F. Wolfman, M.D., and George D. Zuidema, M.D.

The Committee plans to establish a clinic day in two of the centers in 1960-61, and will offer to extend this type of program to other centers that are desirous of such program. It is hoped that clinics with patients may be carried out in those centers that have not used patients for discussion in the past.

The usual printed programs have not been sent out during the past year. Instead, the publicity has been sent out by the local centers to the physicians in their areas. This method has been satisfactory in some centers, but others report that it has not been effective.

The intramural courses at the University of Michigan, together with attendance, are listed below:

Intramural Courses	*Attendance*
Allergy	14
Anatomy	48
Basic Sciences and their Clinical Application	35
Clinical Exercises for Practitioners	29
Clinical Internal Medicine	41
Dermatology	19
Diagnostic Radiology	15
Diseases of the Heart	26
Electrocardiographic Diagnosis	29
Electrocardiography & Heart Disease	56
Endocrinology and Metabolism	52
Foreign Physicians	13
Gastroenterology	12
Interns, Assistant Residents and Residents	374
Neurology, Clinical	39
Obstetrics and Gynecology	55
Ophthalmology	158
Otolaryngology	35
Pathology	20
Pediatrics	35
Psychiatry	11
Pulmonary Diseases	14
Radioactive Isotopes, Clinical Use of	16
Recent Advances in Therapeutics	39
Renal, Pulmonary and Blood Diseases	46
Rheumatology	16
Surgical Pathology Slides	14
	1,261

The Committee is deeply grateful to all the physicians who have participated in this program for their excellent teaching contribution, and to the support and encouragement given the program by the Michigan Department of Health, the Wayne State University College of Medicine, and the University of Michigan Medical Center.

Respectfully submitted,

J. M. Sheldon, M.D., *Chairman*
E. I. Carr, M.D., *Vice Chairman*
H. H. Cummings, M.D.
Milton A. Darling, M.D.
A. C. Furstenberg, M.D.
J. R. Heidenreich, M.D.
R. M. McKean, M.D.
E. J. Neill, M.D.
J. M. Robb, M.D.
D. J. Sandweiss, M.D.
G. H. Scott, Ph.D.
R. M. Stow, M.D.
H. A. Towsley, M.D.
S. B. Winslow, M.D.
D. H. Kaump, M.D., *Advisor*
F. P. Rhoades, M.D., *Advisor*

ANNUAL REPORT OF THE LEGAL AFFAIRS COMMITTEE—1959-1960

In contrast to the 1959 Session of the Michigan Legislature, longest in history, the 1960 Session set a new record for brevity.

Half of the members faced desperate re-election battles this year and were in no mood to languish on Capitol Hill all summer while their opponents were making political hay back home in the hustings. In their determination to avoid any unnecessary, and adjournment-delaying, controversy, the lawmakers quickly swept most of this year's 800 bills under the rug, passing only 167, which was fifty less than the smallest output of any previous regular session.

The MSMS Legal Affairs Committee scrutinized 122 bills, covering such a variety of subjects as atomic energy, crippled children, mental health, chiropodists, drunk drivers, and constitutional convention. Some of the bills of interest to MSMS that fell by the wayside this year were:

SB 1005, which would have legislatively designated the fitting of contact lenses to be a part of the practice of optometry.

SB 1119, which would have permitted boards of supervisors to name non-physicians to the post of county health officer.

SB 1129, which would have made unlawful any employment discrimination by reason of the job applicant's age, eliminating the compulsory retirement of our senior citizens when they reach age 65.

The Committee noted with satisfaction however, that some desirable health legislation did manage to win approval before the final gavel fell in mid-May. Such bills were:

SB 1144, sponsored by MSMS, which eased some restrictive language in a new (1959) section of the Medical Practice Act. Originally "foreign graduates" wishing to enter private practice in Michigan were required by the Board of Registration in Medicine to show evidence of, among other things, having taken a rotating internship in an approved hospital in this state. Since Michigan has reciprocity with all other states in all other aspects of licensure, The Council of MSMS proposed that the Board be allowed to honor residencies taken in approved hospitals in those other states, to which the legislature agreed.

HB 24, which established a new Michigan Commission on Aging, supplanting the Governor's appointive Commission and a Legislative Advisory Council on Problems of the Aging. MSMS successfully supported an amendment to the bill which added a "representative of the Michigan Health Council" to the Commission's membership.

HB 29, which requires that children entering school for the first time shall either: (1) show evidence of having been immunized against polio and the other dread diseases; (2) request the health department to administer the shots; or (3) show parental objection to immunization.

SB 1123, which made supplementary appropriations to certain state boards and agencies for the 1959-1960 fiscal year. MSMS was successful in getting this bill amended to permit the Michigan Crippled Children Commission to pay doctors and hospitals for billings which previously had been rejected because they were not submitted within the 30-day time limit newly imposed last year.

On the Washington scene, health care for the aged occupied the limelight this year. In election year 1960 both political parties strove to pass some sort of health legislation that would please the sixteen million over-age-65 voters.

The pressures for passage of the Forand Bill, which would add limited health benefits to the (compulsory) Old Age, Survivors, and Disability Insurance part of the social security law, were being met by stiff opposition from the medical profession, the insurance industry, and many other national organizations such as the Farm Bureau, the Grange, and the Chamber of Commerce.

A counter proposal, authored by the Eisenhower Administration, which would set up a federal/state grant-in-aid program to initiate and subsidize low income retirees' private insurance programs, got the cold shoulder from the Democratic-controlled Congress.

At the time of this writing no such bill had as yet passed either house, and the spirit of compromise was in the air. There seemed to be a good chance that some sort of federal/state grant program, based on the individual's actual needs, might be passed eventually, such as by expanding the Old Age Assistance (welfare) program of the social security law to cover major expense of the "marginally indigent."

The above record of this Committee's responsibilities for the year emphasize the fact that there is a political, or socio-economic, side of medicine, just as there is the scientific one. The members of the Legal Affairs Committee are deeply grateful to our colleagues in medicine for their unstinting aid in counselling their state and national legislators this past year. Without their help the high standards of health care presently extant would quickly vanish under governmental edict. To them all, our sincere thanks.

Respectfully submitted,
L. A. Drolett, M.D., *Chairman*
O. B. McGillicuddy, M.D., *Vice Chairman*
A. B. Aldrich, M.D.
J. C. Elliott, M.D.
O. K. Engelke, M.D.
K. H. Johnson, M.D.
H. J. Meier, M.D.
P. T. Mulligan, M.D.
J. S. Rozan, M.D.
A. E. Schiller, M.D.
H. A. Towsley, M.D.
R. V. Walker, M.D.
Lester P. Dodd, *Advisor*

ANNUAL REPORT OF GERIATRICS COMMITTEE—1959-1960

The Geriatrics Committee met three times in 1959, once in January, 1960, once in March, and will meet again in June of this year. Several matters have occupied our attention:

(1) The September, 1959, issue of The Journal MSMS was devoted to all aspects of aging with most of the articles being contributed by members of our Committee. The May, 1960, issue was also sponsored by our group, but emphasis this time was not on disease but rather upon the well older person. This was a very interesting Number, for we have been led to believe by certain individuals that aging is synonymous with disability. With this we do not agree and wanted to point out that most older people get along quite well and learn to live with most of their disabilities.

(2) During the past year a Michigan Joint Council for the Health Care of the Aged was sponsored by the Michigan State Medical Society and formed by our Committee. This is made up of three representatives each from the Michigan State Medical Society, the Michigan Hospital Association, the Michigan Dental Association, and the Michigan Association of Nursing Homes. We hope that with the coordinated effort of all four of these groups something worthwhile will be accomplished to improve the health care of older persons.

(3) On different occasions we have met with representatives of the Nursing Home Association to improve our relationship. Several of our members have participated in their meetings and have been impressed with the devotion and sincerity which this group is mani-

festing in their efforts to give the chronically ill person the best possible care. It is frequently the physician who loses interest in the patient's welfare, and it is this tendency which we are attempting to change. Our State Board of Health has done a superb job in improving the rules and regulations governing the operation of these homes.

(4) Recently we had a meeting in conjunction with the Michigan Society of Gerontology, at East Lansing, arranged by Dr. Fred Swartz, a member of our Committee. At this all-day meeting, health insurance for our aging population was discussed fully by several well-known persons in different fields, government, labor, and insurance carriers.

(5) Members of our group participated in the McNamara hearings on the aging in both Grand Rapids and Detroit.

(6) We have been interested in establishing health screening projects for persons applying for old age assistance. We felt that if chronic disease could be detected before it became serious, much costly medical and hospital care could be avoided. A pilot project of this kind has been started in the Grand Rapids area and, if successful, could be extended to all counties for persons applying for public funds.

(7) The March meeting was held with the Committee on Aging of the Michigan Society of Neurology and Psychiatry and the Mental Health Committee. We have realized for a long while that many of the emotional problems of older people might be prevented or at least alleviated and are not always due to irreversible brain disease. It was pointed out that many older people frequently suffer from acute transitory mental disorders and, if treated properly, can recover completely. Mental disorders past sixty are not all due to senility and a careful evaluation should be made before commitment is decided upon. Currently 10 per cent of new admissions are over sixty-five years, and, if other facilities were available, many could be cared for in general hospitals or specially designated nursing homes rather than state hospitals.

(8) At the June meeting held during the yearly Conference on Aging at the University of Michigan, time will be spent discussing medicine's role in implementing the health proposals for Michigan's White House Conference on Aging in September.

Respectfully submitted,
A. Hazen Price, M.D., *Chairman*
F. C. Swartz, M.D., *Vice Chairman*
F. W. Baske, M.D.
H. B. Bennett, M.D.
J. R. Brink, M.D.
S. E. Chapin, M.D.
J. W. Clay, M.D.
E. F. Crippen, M.D.
R. L. Fitts, M.D
P. C. Gittins, M.D.
A. H. Hirschfeld, M.D.
Jack Rom, M.D.
Herbert Rosenbaum, M.D.
C. H. Ross, M.D.
L. F. Segar, M.D.
C. W. Sellers, M.D.
V. K. Volk, M.D.
S. C. Wiersma, M.D.
H. W. Woughter, M.D.

ANNUAL REPORT OF THE ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY—1959-1960

The Advisory Committee to MSMAS had one formal meeting on February 7, 1960, with the Executive Committee of MSMAS. Several informal meetings have been held between the Advisory Committee and officers of the Medical Assistants Society.

Present activities of MSMAS are:

1. The continuation of the educational program under the Extension Department of U. of M.

2. The transfer of the teaching syllabus developed by the University of Michigan to the junior colleges in Michigan, where "home town" courses will be given for medical assistants.

3. Investigation of training and educational facilities in the State for medical assistants. This survey is stalled at the present time for lack of funds.

The present three-year educational program, as developed by the U. of M. will be completed in Jackson and Lansing in January, 1961. It is the hope of the medical assistants and the recommendation of the Advisory Committee that formal recognition be given to those who are first to complete this three-year program. We also recommend that a file be kept in the MSMS office in Lansing to register all medical assistants who have received their certificates of completion either from the University of Michigan or a Junior college associated with the University.

Future activities of MSMAS:

The national convention to be held in Detroit immediately following the MSMS annual meeting in September, 1962.

The American Association of Medical Assistants has grown from 0 to 9,000 in four years. (Michigan has about 1,000 members.) The AAMA is developing rapidly with AMA support, and Michigan has had much to do with this growth. We recommend that MSMS continue to sponsor the Michigan State Medical Assistants Society and to encourage their active participation in the national association.

Respectfully submitted,
J. W. Rice, M.D., *Chairman*
G. E. Millard, M.D., *Vice Chairman*
R. E. Carlson, M.D.
L. E. Holly, II, M.D.
D. B. Johnson, M.D.
A. S. Narotzky, M.D.
T. J. Trapasso, M.D.
J. A. Witter, M.D.

HOTEL RESERVATIONS

for the

95th ANNUAL SESSION

MSMS

should be made

NOW

Conduct Health Survey In Muskegon, Ottawa

A series of health examinations which are part of the Public Health Service's U. S. National Health Survey program will be given to a sample of the population of Muskegon and Ottawa counties this summer.

The examinations will be given on a single visit to a mobile examination center which will be brought to Muskegon, August 17 through September 3. The approximately 150 examinees will not be volunteers but persons pre-designated by a probability sampling technique. The examinations are confined to adults in this survey.

The purpose of the examinations is to collect, on a uniform basis, statistical information on certain chronic conditions, particularly cardiovascular diseases and arthritis, and on physical and physiological measurements.

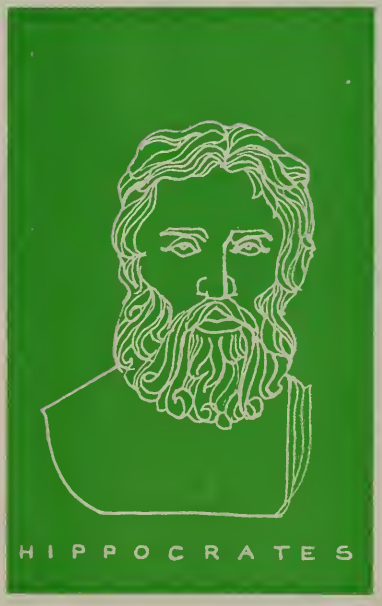
Findings are not disclosed to examinees directly. Each individual is asked, however, if he wishes the findings supplied to his own physician; and if the examinee so authorizes, a report is sent to the physician designated.

The health examination is not intended as a screening procedure; referral for diagnosis is not made. The fact that the examination is not complete and is not a substitute for a visit to one's own physician is stressed with each examinee.

The members of the examining team will be Public Health Service personnel. The examining physicians will be fellows or senior residents in internal medicine working under contract with the PHS. The other team members are nurses, a dentist, x-ray technician, and history interviewer-receptionists regularly on the Public Health Service staff.

The Health Examination Survey is nationwide and is a major project of the U. S. National Health Survey authorized by Congress in 1956. It constitutes the first attempt in this or any other country to perform examinations on a representative sample of the national population.

The Southwest Michigan series of examinations will be the fourth of some forty-two such "stands" in the national sample localities.



Observe "Blood Bank Week"

The importance of blood bank programs was stressed in Michigan recently during "Blood Bank Week." The Governor issued a proclamation in conjunction with a workshop in blood banking techniques held at St. Mary's Hospital, Grand Rapids.

The workshop was sponsored by the Michigan Association of Blood Banks under the supervision of Grace M. Neitzer, chairman of the education and membership committee, and was part of the continuing educational program to acquaint blood banking personnel in Michigan hospitals with the latest developments in blood banking procedures.

Host for the workshop was Harold E. Bowman, M.D., Grand Rapids, president of the Michigan Association of Blood Banks. Guest lecturers included Rosser Mainwaring, M.D., Dearborn; Frank M. Ellis, M.D., Eloise; Eric E. Muirhead, M.D., Detroit; Julius Rutzky, M.D., Pontiac; and Thaddeus Jarkowski, M.D., Detroit.

H. E. Bowman, M.D., *(standing at left)* was host for the Workshop in Blood Banking Techniques held recently at Grand Rapids. He visits with two workshop speakers, Eric Muirhead, M.D., *(seated)* Detroit, and Rosser Mainwaring, M.D., *(standing at right)* of Dearborn.

Wayne Adopts New Plan For Medical Education

Wayne State University has adopted a new program in medical education called the 2-4-2 plan. Morton Levitt, M.D., assistant dean of the College of Medicine, reports the new plan will provide students with a broader liberal arts background as well as a more effective medical education.

Two added advantages, Dr. Levitt points out, will be the opportunity for earlier professional selection and enable the student to elect both the Ph.D. and M.D. degree without the usual loss of time.

After September, 1961, almost all students will be admitted to WSU College of Medicine either through the 2-4-2 plan or with a bachelor's degree.

The 2-4-2 program, which Wayne educators have spent five years planning and executing, involves the following:

Two years in the College of Liberal Arts for completion of both liberal arts and pre-medical requirements. The next four years will be divided between the College of Liberal Arts and the College of Medicine. During this period, the medical student will have an integrated program of study leading to the bachelor's degree and completion of the basic medical sciences. The final two years will be spent in clinical training at the College of Medicine and its affiliated hospitals.

Wayne's 2-4-2 program, which has attracted considerable interest throughout the country, is in keeping with an experimental trend going on in medical education today. Other medical schools changing their curriculums are Western Reserve, Stanford, Johns Hopkins and Northwestern Universities.

Re-elect John N. Lord as Blue Cross President

John N. Lord will continue as president of Michigan Blue Cross for his fourth consecutive term. He was re-elected at the annual meeting of the board of trustees. Mr. Lord, president of Lee & Cady and vice-president of Grace Hospital in Detroit, has served on the board of trustees since 1954.

Other officers re-elected for 1960-61 were Robin C. Buerki, M.D., vice president; Ralph E. Phelps, treasurer; Wm. S. McNary, secretary; and Hazel Kennedy, assistant secretary.

The board of trustees also appointed an executive committee representing the hospitals, the medical profession and the general public. The three hospital representatives are: George Cartmill, director of Harper Hospital, Detroit; Rev. Wm. C. Perdew, director of Bronson Methodist Hospital, Kalamazoo; and Ronald Yaw, director of Blodgett Memorial Hospital, Grand Rapids. Wm. S. Reveno, M.D., Detroit, was reappointed the medical representative. Public representatives appointed to the committee are: Roy L. Jacobus, manager of the pension and insurance department, Ford Motor Company, and Lawrence Gettlinger, administrative assistant to Walter Reuther, president of the United Auto Workers.

Careers in Medicine

To help Saginaw's young people learn more about careers in medicine and its related fields, the Saginaw County Medical Society Auxiliary sponsored panel discussions in three Saginaw schools during the month of March.

Mrs. John L. Shek said the Auxiliary presented the program as an informational guidance service.

Besides being able to question the panelists, pupils also received a booklet describing all the various professions and what they have to offer in salaries, opportunities, responsibilities and other related facts. The pamphlet was entitled "Planning Your Career," published by the Michigan State Medical Society.

Regarding Liability of Physicians Who Volunteer for Emergency Service

The following legal opinion supplements a previous opinion rendered by M.S.M.S. Legal Counsel—which was published in the February 1960 issue of JMSMS. Counsel suggests that this opinion be read and considered in conjunction with the former opinion.

Dear Doctor:

You have asked me for clarification of certain points in connection with the opinion which I rendered sometime ago with respect to the liability of physicians who volunteer for emergency call service at their local hospitals.

In that opinion I expressed the view that a physician who *volunteers* for emergency call service knowing that he will probably be called upon to render care for which he is not qualified, may well run into legal difficulties. I continue to adhere to that opinion. I did not mean to imply, however, (and I believe a reading of the entire opinion will so indicate) that a physician can never safely participate in emergency call service unless he is expert in all fields. I meant rather to stress the point that a physician should never offer to render service for which he is not qualified, except in situations where no better qualified men are available.

In the application of that principle to the practices followed in any specific community, consideration must always be given, of course, to the size of the community and of the hospital and to the number and qualifications of physicians available in the community. As a practical matter, many communities would be without emergency service were participation therein confined to men fully qualified to render any service that might be required.

* * *

I BELIEVE, THEREFORE, that the following general rules can be observed safely:

1. If, in a given community, an inadequate member of fully qualified men, capable of rendering any type of care or treatment which might be required on emergency service, are available or willing to serve, then less qualified men can and should be called upon for such service.

2. Where less than fully qualified men are necessarily used in such service, arrangements should always be made, where possible, to have more fully qualified men subject to immediate call when needed.

* * *

FOR THE PURPOSE of clarification of my former opinion with particular respect to conditions existing in your community, you have asked me two questions.

1. Does a staff member, who considers himself less than fully qualified to render any and all service that might be called for, make himself legally vulnerable by taking his rotating turn on emergency service where qualified men in all fields are available on call?

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Grand Rapids, Michigan

If conditions in your community are such as to bring it within the scope of the first of the general rules which I have outlined above (and I assume this to be the case), it is my opinion that he may safely and properly take his rotating turn on emergency service if adequate arrangements have been made for qualified men to be available on call and if, in actual practice, he makes every reasonable effort to procure the services of a better qualified man before undertaking to handle a situation for which he is not qualified.

2. If a physician on emergency service is confronted with an emergency situation which he does not feel qualified to handle, is he justified in proceeding to do the best he can under the circumstances, when after making such reasonable efforts to call in a better qualified man, as time and conditions will permit, he finds that none is available?

* * *

IN MY OPINION, HE IS. Under these circumstances he has not volunteered to do nor held himself out as capable of doing that which he finds himself obliged, in an emergency, to do. He has made every reasonable effort to obtain better qualified help for the patient and therefore has no alternative but to proceed.

I trust that the foregoing will be of help in clarifying the whole situation.

Sincerely yours,
LESTER P. DODD,
Legal Counsel

Words and Words

Psychiatrists are as human as the rest of us when they start writing reports: Sometimes the words just won't come out right.

The University of Michigan Neuropsychiatric Institute brightens its departmental newsletter with grammar-drama culled from the doctors' clinical reports. Examples:

"As far as one can determine, she has been a fairly active person in local affairs and has given birth to five children."

"The mother and father, at present, are dead."

"She had an unhappy love affair and also had ideas of having given birth to baby rabbits. This, of course, sounds pretty unhealthy."

"The patient said his greatest wish was for Gus Triandos to hit a home run. He showed gross disorganization in his thinking."

"He was obviously withdrawn (hiding under the covers)."

"She said she did not care for money, that she never had any money, and that she didn't want any money because money only meant trouble. Her emotional reactions were very shallow."

Say you saw it in the Journal of the Michigan State Medical Society

Report 49 Per Cent of Population With No Polio Vaccine Protection

New estimates, released by the U. S. Public Health Service, show that over 91 million persons have now had one or more shots of polio vaccine and 72 million of them have had the three or more shots required for complete vaccination.

The new figures indicate that 40 per cent of the population now has maximum protection against polio. Eleven per cent have been partially vaccinated with one or two injections, but 49 per cent have had no vaccine at all.

"It is among these 49 per cent that paralytic polio will take its heaviest toll this summer," warned Dr. John D. Porterfield, Acting Surgeon General of the Public Health Service.

Among children under five years of age, who accounted for 43 per cent of all paralytic polio cases last year, there are still 8.5 million, or 42 per cent of all children in that age group who have had less than the three or more shots required. Nineteen per cent of them have had no vaccine at all.

Begin Pennsylvania RVS

As a result of action taken by the 1959 Pennsylvania Medical Society House of Delegates, the Sub-Committee on Fee Schedules of the State Society's Commission on Medical Economics is in the process of developing a relative value study for Pennsylvania. The target date for completion of the study will be July 14-15, 1960.

The study, which will be reviewed periodically, consists of four sections including medicine, pathology, surgery, and radiology. Procedure numbers and nomenclature similar to those employed in a study by the California Medical Association are being utilized and more than 1500 procedures are included in the study.

A relative value study also is being conducted in Michigan with Luther R. Leader, M.D., Detroit, Chairman.

Florida Encourages Gifted Students

Science teaching at high school level has taken on a new dimension in the Dade County, Fla., program. Two years ago, Milton S. Saslaw, M.D., director of the Department of Medical Research at the National Children's Cardiac Hospital in Miami, conceived the "Science Research Program for Gifted Students" to stimulate scientific thinking and motivation among young people.

Dr. Saslow tested his idea in 1957 by a pilot experiment with two talented junior-high-school students. Their response to assignments given them in the hospital's laboratory convinced Dr. Saslow that students of this age offer a rich resource of future scientists. The program, now enlarged and in operation since January, 1958, has the enthusiastic support of the Dade County Board of Public Instruction.

MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

Michigan Immunization Requirements for School Enrollment

Act 12, Public Acts of 1960, adds a new section to Act 269 of the Public Acts of 1955, entitled "The school code of 1955." This section reads as follows:

"Sec. 376. All children enrolling in any public, private, parochial, or denominational school in Michigan for the first time shall submit either a statement signed by a physician that they have been immunized against smallpox, diphtheria, tetanus, pertussis, and poliomyelitis; a statement signed by one parent or guardian to the effect that the child has not been immunized because of religious or other convictions; or a request signed by one parent or guardian that the local health department give the needed protection injections."

Shortly after passage of this act by the 1960 legislature, the Department of Public Instruction and the Michigan Department of Health jointly developed informational materials regarding the act which were sent to all superintendents in the state. At the same time all health officers received copies of the material and were asked to transmit the information to private, parochial, and denominational schools in their jurisdictions.

The following schedules can be modified by the use of single antigens and by varying the ages at which certain antigens are given:

Suggested schedule to be followed if immunization is started under six months of age:

Smallpox—A primary take during the first year of life and a revaccination at age five years.

Diphtheria, Pertussis, and Tetanus—Four doses one month apart starting at three months of age followed by booster doses at ages two and five years.

Poliomyelitis—Three doses one month apart starting at three months of age followed by booster doses at ages one and two years.

Suggested schedule to be followed if immunization is started between six months and five years of age:

Smallpox—Primary vaccination—revaccination at age five years if more than four years have elapsed since the primary vaccination.

Diphtheria, Pertussis, and Tetanus—Three doses one month apart—a booster dose at age five years if more than four years have elapsed since completion of the primary series.

Poliomyelitis—Two doses one month apart followed by a third dose seven months after the second and a fourth dose as a booster one year or more after the third dose.

Suggested schedule to be followed if immunization is started over five years of age:

Children over five years of age entering the Michigan school systems are not required to be immunized against pertussis. Follow the same schedule outlined above, omitting the pertussis component.

Any of the four options below meets the requirements of Act 12, P.A. 1960:

I. *Physicians' statement*

I hereby state that in my opinion .....(name of child)..... has been adequately immunized against smallpox, diphtheria, tetanus, pertussis, and poliomyelitis.

Date .....
School .....
Parent or guardian .....
Address .....
Physician .....
Address .....
.....

II. *Parental statement of intent to obtain required immunizations from the family phyician*

I hereby certify that our family physician will give the necessary protective treatments to .....(name of child)..... to meet the school enrollment requirements of Act 12, Public Acts of 1960. I further certify that as the required immunizations are completed I will submit a statement signed by the physician to that effect.

Date .....
School .....
Signature .....
(Mother, father, or guardian—state which)
Address .....

III. *Parental request for immunization by the local health department*

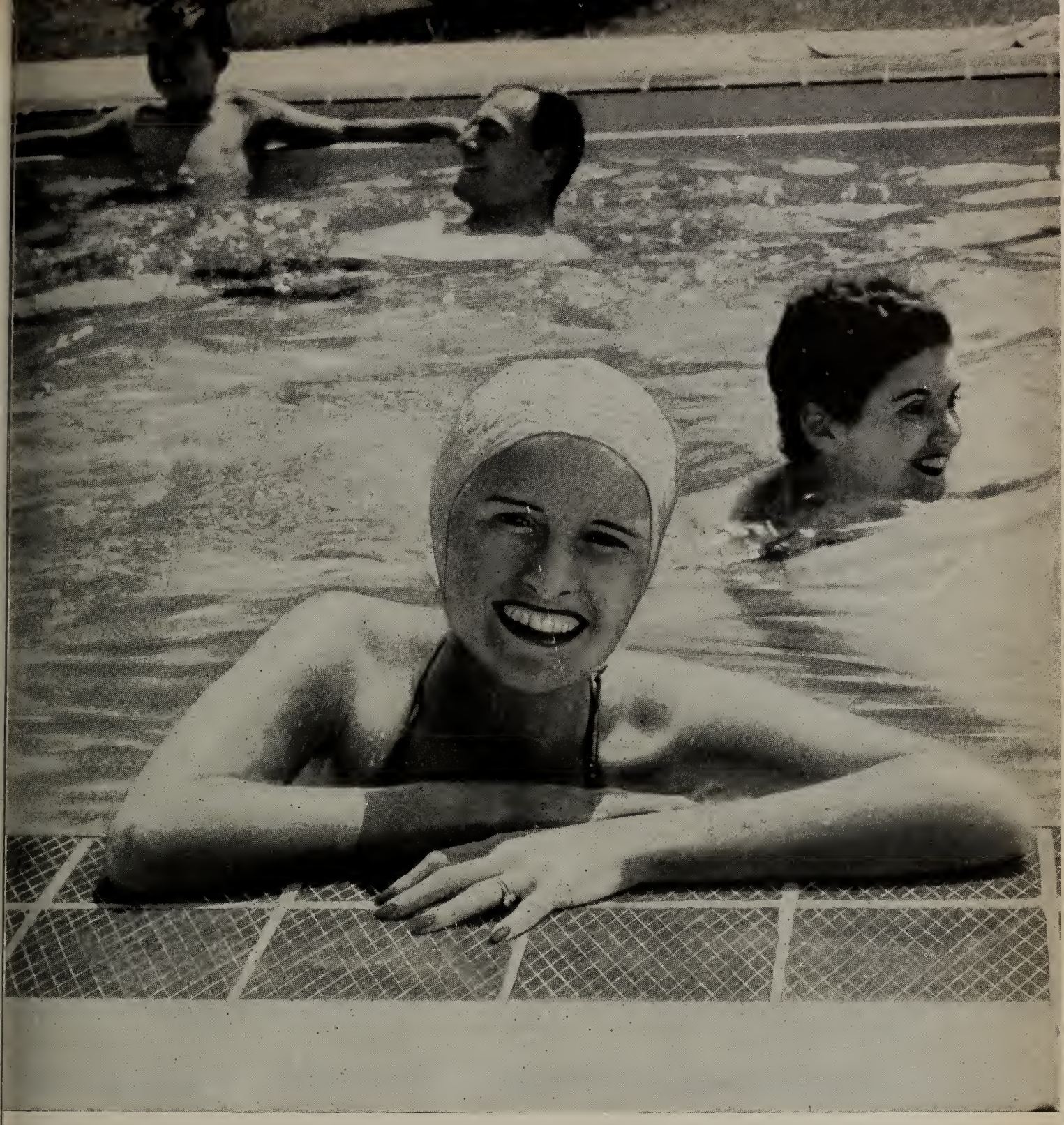
I hereby request that the local health department give .....(name of child)..... the immunizations required by Act 12, Public Acts 1960.

Date .....
School .....
Signature .....
(Mother, father or guardian—state which)
Address .....

IV. *Parental statement of refusal*

I hereby state that because of religious or other convictions I do not wish to have .....(name of child)..... protected against smallpox, diphtheria, tetanus, pertussis, or poliomyelitis.

Date .....
School .....
Signature .....
(Mother, father or guardian—state which)
Address .....



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COMMUNICATIONS

Dear Doctor Haughey:

Events are moving rapidly toward Government intervention in the practice of Medicine.

Any plan that might offer a solution to the problems of prepaid medical care should be aired as quickly and completely as possible.

I am submitting the enclosed original insurance plan for publication in THE JOURNAL for consideration by the largest possible number of physicians.

Readers are invited to fill out the questionnaire at the end of the article. The paragraphs are numbered for easy reference.

With best wishes, I am

Sincerely,
RICHARD E. STRAITH, M.D.

Detroit, Michigan
May 11, 1960

MEDICAL CREDIT INSURANCE

A New Concept of Health Insurance

By Richard E. Straith, M.D.

(Originally proposed in September, 1958)

1. Blue Cross and Blue Shield were founded on an idealistic plan rather than one based on the failings of human nature and, therefore, during the last ten years, rates have increased about 250 per cent. In the succeeding ten years, if a similar increase in rates occurs, medical care will be priced beyond the means of the public and into the arms of the socialistic government planners. Politics will force the Government to intervene.

2. Further, it doesn't make sense to have all our 'insurance' eggs in the one basket. If Blue Cross does fail, we should have experience in other medical plans, of which we approve, for providing the medical coverage that is demanded by the public. We have the most to lose and if others will not do the necessary research—we must!

3. In numerous conversations with Blue Cross and medical personnel, it was generally agreed that at least 10 to 20 per cent of the costs of Blue Cross-Blue Shield could be eliminated if the patient could be motivated to watch his own bills as though he were paying them himself. It is on this basis that I propose the following plan as an outline to be modified by actual experience and practical considerations.

PROPOSED PLAN

Medical Credit Insurance

4. The only real medical need of people today is to be assured of adequate medical care whether or not they have the money to pay for it. It is possible to purchase almost any large item on time—i. e., F.H.A. mortgages, et cetera —and there is no reason why medical care can't be purchased the same way.

5. Therefore, a plan which would provide for both setting aside some money (prepayment) and insure the credit of the subscriber for medical care by hospitals and doctors, would solve the problem. If, for example, a subscriber should become sick in the middle of the night and his doctor advised immediate hospitalization, he would go to the hospital and, if he had no money, would sign his name to a note which could be presented to the insurance company for payment if the patient did not pay his hospital or medical bill on discharge.

6. In the event of the payment of large bills by the insurance company, causing the subscriber's account to become overdrawn, his premiums would be increased after his return to work. In general, the greater the deficit in the subscriber's account, the higher his future premium rate (never more than 100 per cent increase) would be for a longer number of months after he went back to work. In cases of catastrophic illness with accompanying large bills, where overdrawn amount would become very large, the amount to be repaid would be scaled down to give everyone protection in such cases.

7. As long as the members in a deficit position in their accounts continued to pay their increased premiums, their medical credit would continue to be insured and they would be allowed to repay any amount over a period of ten to twenty years. If they dropped out owing a large deficit, the full unreduced amount of the deficit would be collected as with any other bad debt. If a family is not willing to pay for their own medical care in this manner, then it does not seem reasonable that they should ask others (i. e., the Government) to pay for it for them.

8. The increased premium in deficit accounts would discourage over-utilization and the drop-out arrangement would discourage joining the plan with anticipated use and leaving before the full amount of the deficit was repaid.

9. Bookeeping costs for such a system have been estimated by the Burrough Corporation (using a machine presently in operation) at $1.50 per insured person per year based on one entry a week to his account. Many credit unions use these machines and would probably make ideal collection and disbursing agencies by re-programming their machines to do this along with their other work.

10. To begin with, the premiums paid by each subscriber would be the same as Blue Cross. Assuming that the utilization would be 10% to 20% less than in Blue Cross, there would be a yearly surplus of 10% to 20% of the total amount of the premiums. This surplus could be divided between the employer, if he paid the premiums, the insurance company and the insured individuals who did *not* use any benefits. This would be paid as a year-end dividend or allowed to accumulate to give some future benefit after retirement. Credit balances would be treated as any other "savings" account and thus draw interest.

11. Ten per cent, plus or minus, of the premiums collected would probably be a sufficient amount to insure the "medical credit" for those who fail to repay the amount of their deficit. (Credit unions lose 0.2 per cent on bad debts). This would include those who die or lose their jobs before their deficit is made up and would vary from year to year according to the experience rating of the group insured. The groups would be as small as possible to keep them as *personal* as possible. Each group would share some of their risks with all other groups and thus spread the risks over a larger number of people.

(Continued on Page 1124)

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1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

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(Continued from Page 1122)

12. At retirement, if no benefits had been used, the subscriber would receive a certain amount of dividends or reduced premiums until benefits were used. Upon the death of the insured, if a cash balance remained in his account, it would be added to his estate. This would tend to prevent overutilization by elderly people for "boarding" purposes. If these same elderly people wanted hospitalization, whether justified or not, this would be their privilege which is not the case as it is today. In cases of impending death, families would be more inclined to care for their relatives themselves or could choose between spending the balance for the terminal care or inheriting it.

Examples of Actual Cases

Actual cases might be similar to the following:

13. (a) Subscriber has paid in for several years and has a credit balance of $700. He is admitted to the hospital and the insurance company pays a $1200 bill leaving a deficit of $500 charged against his account. After his return to work, this $500 deficit would cause an increase in his premium of, say, 50 per cent until the amount of the deficit was paid. This $500 would cause an increase in his premium of, say, 25 per cent for one year following the use, when the premium would again drop back to normal. This would cause increased motivation for reduced hospital utilization.

14. (b) Subscriber has credit balance of $3000. Then, automatically, the subscriber's premiums would be reduced to one-half until benefits were used, at which time they would again increase to normal premiums.

15. (c) Subscriber, a widower, aged eighty-five, paid into insurance plan twenty years without use of benefits. His credit balance was $6000 due to accumulated dividends and interest. He becomes moderately ill, not sufficiently ill to require hospitalization. Because the younger members of the family might be too busy to care for him, they could elect to send him to the hospital for extended care and to use his accumulated savings.

16. In this day of abundance, where our Society has been able to create luxuries of all kinds, it is an indictment against any prepayment system that will not permit a man to be hospitalized and get the benefits of hospital care merely because he wants them and is willing to use his money to pay for them.

Assurance of Fair Charges for Medical Care

17. The only reason the medical profession is in "political trouble" today is because there is doubt in the minds of the public that they are getting their money's worth when buying medical care. The only way we, as a profession, can get out of this "political trouble" is by removing this doubt by assuring the public that our system *does* offer the best medical care at a fair price.

18. In other professions and occupations, this is accomplished by a system of competitive bids from which the buyer may choose the person to perform the desired services. This could be adapted to medical care very readily and

(Continued on Page 1126)

. . . combined with Phagocytic stimulation

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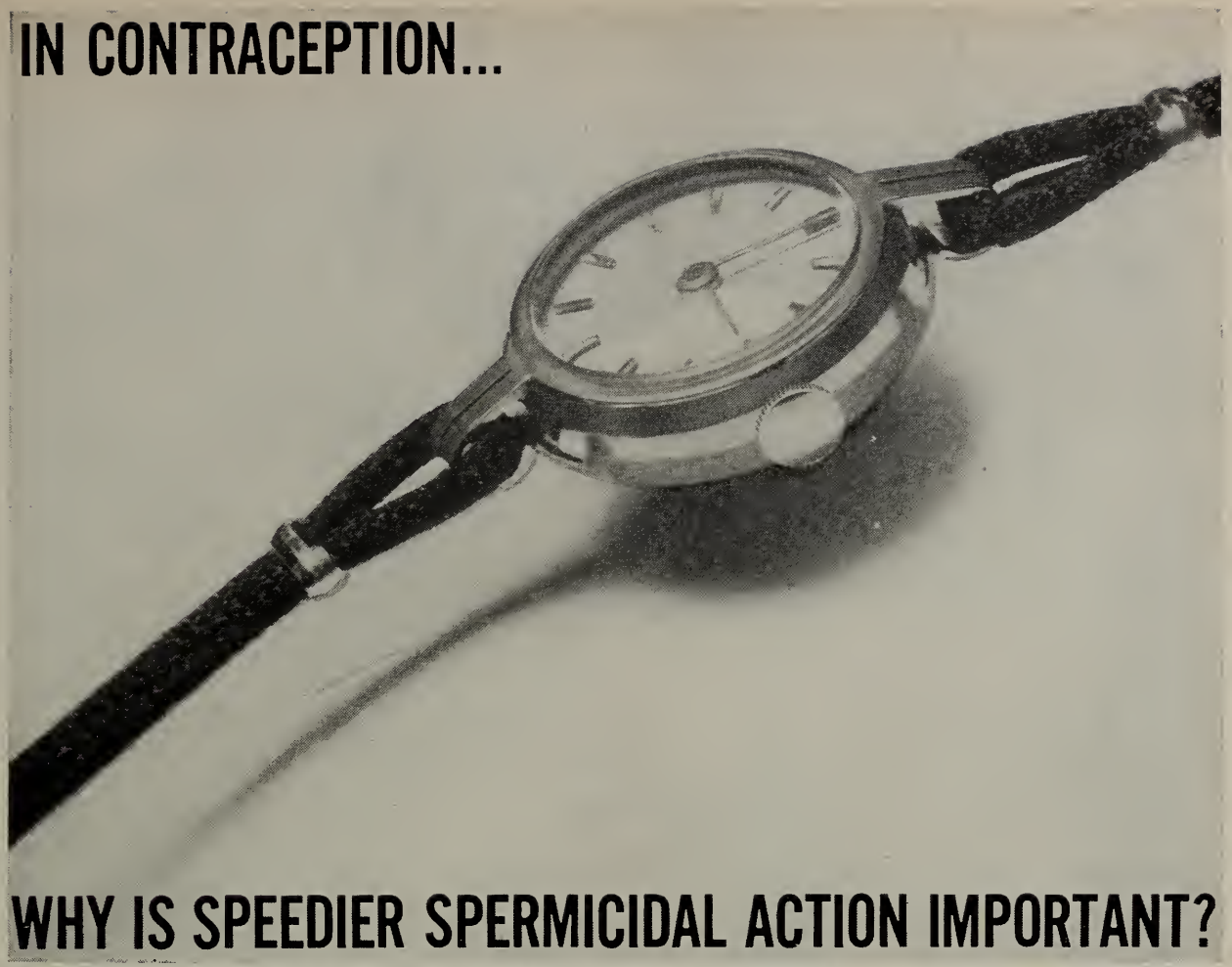

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**Berberian, D. A., and Slighter, R. G.: J.A.M.A.* 168:2257 *(Dec. 27) 1958.*

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(Continued from Page 1124)

would retain a close doctor-patient relationship and completely eliminate any third party interference.

19. For example, a form would be sent to all surgeons of a given community hospital. On this form, they would list the number of years in approved training, number of years specializing in a certain field, et cetera, (so the public would get an idea of their qualifications). They would also indicate for how much they would be willing to perform an appendectomy, herniorrhaphy, hemorrhoidectomy, or any other service. A young surgeon, just out of residency, might elect to do an appendectomy for $75 or $175 as he chose. As he would not be busy, undoubtedly he would lower his fees to obtain more work. A busy successful surgeon might feel his services for an appendectomy are worth $250 and that is his privilege.

20. Physicians would be free to change their fees at any time merely by filling out another information form. These changes in fees by various physicians would be open to comparison by the patient and referring physician. This would tend to prevent overcharging. If a surgeon set his fees too high, he would run the risk of losing his referral cases to the well-trained younger surgeons.

21. The referring physician, who would have access to these forms, would advise the patient which surgeon he thinks would be best qualified to perform the service for the fee asked. This would afford the patient reassurance of good treatment at a fair price. Such assurance is essential for acceptance by the public and unions of a change from a "service" to a credit type plan of hospital and medical insurance.

New Hospital Construction

22. Another related problem is the great deal of unnecessary expense, time and effort spent in organizational drives for funds for the construction of new additions and new hospitals. This actually amounts to an additional tax on the individuals and corporations who "give." When costs of hospitalization are spread over large groups of insured people, as is the case today, it seems only reasonable to allow hospitals to charge enough to replace equipment and pay for new construction with their own funds. This, in effect, would allow the hospitals that are performing the most desired services to the community to make enough money to pay for their own new additions and not require additional taxes from corporations and individuals for this purpose.

23. This type of insurance should take that into consideration in paying the full charges of hospitals or would ask for only moderate reduction in rates to compensate for the lack of collection problems that the hospitals would have. This plan would also make unnecessary all the various hospital and community committees that take so much time and energy to decide the questions that would be automatically decided by dollars and cents.

PREPAYMENT PHILOSOPHY

24. The reason rates are rising so rapidly in present Blue Cross-Blue Shield plans is because there is no direct relationship between what a subscriber pays in premiums and the benefits he receives. In fact, when his turn comes to use benefits, his attitude is one of "getting my money's worth" from what he has paid in, rather than one of weighing the service he gets in relation to the costs of those services. This plan is designed to make this relationship as direct as possible and still provide the benefits of prepayment, spreading risks of catastrophic illnesses, and planning for medical care during retirement years. With events moving as rapidly as they are today toward other solutions to these problems, we must find a sensible long range plan that will solve the problems at a minimum of cost.

We invite you to fill in the questionnaire, referring to any particular paragraph by number. Please outline any modifications you would suggest on a separate sheet.

Questionnaire

Realizing that the foregoing is only an outline and not final, does it "make sense?" Yes..... No.....

Which, if any, paragraphs do *you* object to? No.....
What modifications do you think would make this plan more acceptable? .....

.....

In general, would you support a plan such as this? .....
Would you like to see a plan such as this given a trial operation? .....

.....
Signature (Optional)

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IN MEMORIAM

OSBORNE ALLEN BRINES, M.D., sixty-six, internationally-known pathologist at Wayne State University College of Medicine, died May 18, 1960.

Born in Algonac, Doctor Brines was a 1915 graduate of the University of Michigan. He became a medical laboratory technician before entering medical school, receiving his medical degree from the Detroit College of Medicine in 1927. He became pathologist to and director of the laboratories of the Detroit Receiving Hospital and began his teaching career in the pathology department of the College of Medicine.

He was a captain in the Navy Medical Corps in the South Pacific during World War II. When he returned from the service in 1946, he was made full professor and chairman of the department of pathology at Wayne State University, the post he held until his death.

Doctor Brines' death occurred on the eve of a trip to Europe to participate in a convention of the International Society of Clinical Pathology. He was serving as the president of that Society, having been elected to a three-year term in Brussels in 1957. He was the first American to hold this office. He was an organizer and officer in many pathological societies in the state and nation and in 1954 was given the Distinguished Service Award by the Alumni Association of Wayne State University College of Medicine.

In 1959 he received the Ward Burdick Award from the American Society of Clinical Pathologists for outstanding contributions in the field of pathology.

Doctor Brines was an authority on direct blood transfusion and was conducting a project on cancer research in women, the largest such project in the nation. He also was chief consulting pathologist for the Veterans Administration.

He was a member of the Alpha Omega Alpha honorary fraternity and the Nu Sigma Nu Medical Fraternity. He was a member of the Zion Lodge, F. & A.M., the Detroit Consistory, as a 32nd degree Mason, and was a Shriner.

A. S. HALE, M.D., sixty, senior staff surgeon of ophthalmology at Harper Hospital, Detroit, and an associate surgeon of ophthalmology at Beaumont Hospital, Royal Oak, died May 9, 1960.

A native of England, he was a graduate of the University of Toronto, class of 1922. He came to Harper Hospital that same year, and was associated there thirty-five years.

Doctor Hale was a member of Alpha Omega Alpha, honorary medical fraternity and, in addition to other medical affiliations, he was a member of the Detroit Boat Club and a deacon at Bushnell Congregational Church.

CHARLES L. HIRWAS, M.D., sixty-one, Marquette physician, died May 16, 1960. Born in Ishpeming, he attended Ishpeming public schools and graduated from the Gwinn High School.

He attended the U. S. Naval Academy at Annapolis, Md., for one year and then transferred to the University of Michigan, graduating and receiving his medical degree in 1926. He had practiced in Marquette, throughout his medical career.

Doctor Hirwas was on the staffs of St. Luke's and St. Mary's hospitals.

CHARLES O. HOLDER, M.D., fifty-two, Kalamazoo psychiatrist, died June 2, 1960.

Doctor Holder was assistant medical superintendent of the Kalamazoo State Hospital. He received his medical degree from the Indiana University School of Medicine in 1934 and was licensed to practice in Michigan in 1936.

He served in the Army Medical Corps from 1942 to 1946. Memberships included the Kalamazoo Executives Club, the American Psychiatric Association and Theta Kappa Psi medical fraternity.

E. CHARLES HUGHES, M.D., eighty-seven, Bay City's oldest physician, died May 14, 1960.

Doctor Hughes was born in Aylmer, Ontario. He attended Aylmer Collegiate Institute, Trinity University at Toronto and University of Albany, N. Y., University of Buffalo, Detroit College of Medicine and was graduated from Louisville Medical School in 1894. He also did post-graduate work at University of Michigan.

Doctor Hughes practiced medicine in Bay City for thirty-two years. He was appointed to the emeritus staff of Mercy hospital in 1948 and of General in 1950.

In 1947, the Michigan State Medical Society, House of Delegates presented him with a Fifty-Year Award, honoring him for having practiced medicine for half a century.

In addition to his medical affiliations, he was a member of the Armada, Michigan F. & A.M. lodge and of Bay City Consistory.

CHARLES G. JOHNSTON, M.D., sixty-one, Detroit, internationally-known surgeon and head of the surgery department at Wayne State University College of Medicine since 1936, died June 3, 1960.

Doctor Johnston also served as chief surgeon at Receiving Hospital, Detroit, and Veterans Hospital, Dearborn. For more than thirty years, he continued extensive research in gallstones.

Born in St. Louis, Dr. Johnston received his medical degree from the Washington University School of Medicine in 1926. He did post-graduate work at the University of Pennsylvania and in Germany.

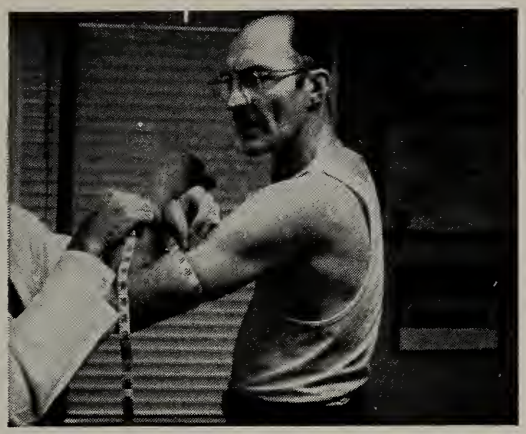
He was a lieutenant commander in the Navy Medical Corps from 1942 to 1944.

Doctor Johnston was a past president of the Western Surgical Association and the American Association for Surgery of Trauma. Other memberships included the American Surgical Association, American Diabetic Association, American College of Surgeons, Alpha Omega Alpha, national honorary medical fraternity; Sigma Xi and the International Society of Surgeons.

HENRY R. LEIBINGER, M.D., seventy, Detroit physician, died March 31, 1960.

Doctor Leibinger was born in Chicago, took his pre-medical

(Continued on Page 1131)



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Because Dianabol is an oral preparation, it spares patients the inconvenience and discomfort of parenteral drugs.

And because Dianabol is low in cost, it is particularly suitable for the aged or chronically ill patient who may require long-term anabolic therapy.

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(Continued from Page 1128)

training at the University of Illinois and obtained his medical degree from the University of Michigan in 1916.

He was on the staff of Harper Hospital.

JAMES H. MAXWELL, M.D., fifty-eight, Ann Arbor, chairman of the University of Michigan department of Otolaryngology, died June 2, 1960.

A member of the University of Michigan Medical Center staff since his graduation from the University's Medical School in 1927, he had served as chairman of the department since July, 1958.

Active in national medical groups, he had served on the residency review committee of the American College of Surgeons and the American Medical Association, was a past member of the Board of Governors of the American College of Surgeons, and was a former secretary of the American Laryngology Society and of the American Academy of Ophthalmology and Otolaryngology.

ROSS J. PORRITT, M.D., fifty-two, a lifetime resident and physician of Pontiac, died April 16, 1960.

After graduating from Pontiac Central High School in 1925, he entered Michigan State College from which he received his B.S. degree. He received his medical degree from Northwestern Medical School in 1935.

During World War II, Doctor Porritt served as a lieutenant colonel in the Army Medical Corps.

He was a member of the Kiwanis Club and Central Methodist Church.

KARL E. SEIDEL, M.D., forty-seven, Grand Rapids physician for fourteen years, died May 3, 1960.

Doctor Seidel was born in Grand Rapids, was graduated from Central High School and attended Grand Rapids Junior and Calvin colleges. He was graduated from the University of Michigan medical school in 1939.

Doctor Seidel practiced briefly in Ionia before serving in World War II as an army captain. Upon his return, in 1946, he started practice in Grand Rapids. He was a staff member of Butterworth Hospital.

ROBERT L. WADE, M.D., eighty-three, retired Coldwater physician and surgeon, died April 16, 1960.

Doctor Wade, born in LaGrange County, Indiana, completed a teachers' course in Angola and taught in county schools before entering medical school. He was graduated from the University of Illinois in 1907. He started practicing in Fremont, Ind., and established a 10-bed hospital there.

In 1922, Doctor Wade moved to Coldwater and opened a 35-bed hospital, known as the Wade Memorial Hospital, which continued to operate until it was destroyed by fire in 1937. The Community Health Center was erected on the same site, and Doctor Wade served as chief of the surgical staff after it opened in 1939.

Doctor Wade was a member of the Coldwater First Methodist Church, all of the local Masonic orders from the Blue lodge through Jacobs Commandery, Knights Templar, and the Shrine. He was a member of the Bon Ami Club, Coldwater Elks lodge and a former member of the Rotary club and Coldwater Country Club.

His hobbies were hunting, dog breeding and trap shooting.

C. A. Conshus, M.D., Says . . .

That sign that you think not
worth mention

May be what needs speedy
attention.

You'd better make sure,

Because one pound of cure

Can't compare with an
ounce of prevention.

If your choice is on thin ice
to skate,

Just give this detective the
gate,

You're afraid that my
answer

Will be, "You've got
cancer."

Could happen you find out
too late.

POINTLESS - To disregard danger signal.

Limericks by Sydney B. Carpender—Drawings by Robert Toombs.
Reprinted from the *Pennsylvania Medical Journal*, November 1957-October 1958. By permission of the Commission on Cancer, The Medical Society of the State of Pennsylvania and the American Cancer Society, Pennsylvania Division, Inc.

Honor Doctor Stubbs, Others

Three "Health-U.S.A. Awards" were given at the 1960 testimonial luncheon of the Medical Society of the District of Columbia and the Metropolitan Washington Board of Trade. Receiving recognition for their "statesmanship in health" were Donald H. Stubbs, M.D., chairman of the board, National Blue Shield; Major General Howard Snyder, M.D., U.S.A., physician to the President of the United States, and Elmer H. Bolst, chairman of the board, Warner-Lambert Pharmaceutical Company.

* * *

TEACH CD COURSES—Fifty Detroit doctors of medicine devoted time during 1959-60 to teach classes in Medical Civil Defense. There were 662 enrolled in the 21 basic and advanced CD classes.

* * *

BEGIN NEW COVERAGE—The largest voluntary contributory health benefits program in the world went into effect in June as the first group of Federal employees were brought under the coverage of the Federal employees health benefits program.

There are 38 health benefits plans approved by the Civil Service commission for participation in the new program. These include two government-wide plans, which are open to all employees, 15 plans sponsored by federal employee organizations, which are open on a membership basis, and 21 comprehensive medical plans which generally restrict enrollment to employees working or residing within the geographic area served by the particular plan.

The federal government will contribute up to half the cost of each health benefits plan, with the employee paying the balance of the cost of the plan he selects through payroll deductions. The volume of first-year premiums is expected to approximate $250,000,000.

* * *

REVEAL TV SERIES—"This Week in Medicine" is a 15-minute, weekly open-circuit TV program scheduled to go on a national 60-station network each Sunday afternoon toward the end of October. It will be presented by the editors of the newspaper, *Medical News*, under the sponsorship of CIBA Pharmaceutical Products.

Although on open circuit, the program will be designed and intended exclusively for a physician audience. It is expected that the technical terminology to be used will reduce non-physician comprehensibility and viewing to a small minimum.

The program will include about five minutes of up-to-date news of medicine and medical science plus a seven-minute filmed feature report on some current, significant aspect of clinical medicine, research, surgery, et cetera.

Contributions for this "News Briefs" department are invited from individual physicians, from county societies, and from other health organizations. Please direct your contributions to the Editor.

RESEARCH FELLOWSHIPS—Students in ninety-seven United States and Canadian medical schools will share $115,000 in Lederle research fellowships this summer.

The purpose of the summer program is "to relieve in part the financial burden of students who desire to devote their summer vacations to research in the basic (pre-clinical) medical sciences," according to B. W. Carey, M.D., Lederle medical director.

Each four-year school receives $1,200 to be awarded to not less than two students, while each two-year school receives $600. Recipients are selected by the school deans.

* * *

NEW BOARD MEMBERS—The American Board of Obstetrics and Gynecology has held its examinations and announces the following MD's from Michigan are certified:

Dorothy Kathleen D'Sena, Wayne; Deymour Beryl Ekelman, Mt. Clemens; Harold Lennox Fachnie, Detroit; Milton Herbert Goldrath, Detroit; John Roderick Gwynne Gosling, Ann Arbor; E. Rae Hudspeth, Detroit; John Stanley Jewell, Dearborn; James Evans Ladd, Birmingham; Theodore William Ling, Farmington; John Hinkkle Luzadre, Grosse Pointe Farms; Roderick Thomas McPhee, Detroit; Virginius Archer Marks, Midland; John Cleland Mayne, Bay City; Charles Louis Schneider, Dearborn; John W. Shriner, Midland; David Standiford, Bay City; Robert Zeff, Detroit.

* * *

REHABILITATION TRAINEESHIPS ENCOURAGED—Vocational rehabilitation counselors are now accepting applications at Wayne State University for fall traineeships. The planned curriculum will lead to the degree of Master of Arts in Vocational Rehabilitation.

Trainees will receive $900 per semester while working full time on a master's degree.

Forty-five credit hours of course work are required for the degree. All requirements, including a supervised field experience, can be completed in three semesters of full time work.

* * *

SPEAKER—On May 3, 1960, M. K. Newman, M.D., Detroit, delivered a talk at the Pan American Medical Association Meeting in Mexico City on "Muscular Weakness and Atrophy; Diagnostic Aspects." On May 12, 1960 in London, Ontario, before the Southeastern Ontario Section of the Muscular Dystrophy Association of Canada, he delivered an address entitled, "Organization and Management of A Muscle Clinic."

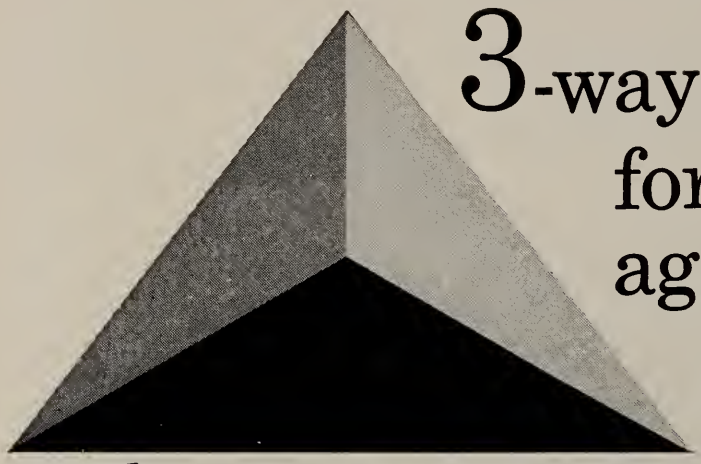
* * *

YAMASAKI HONORED—Minoru Yamasaki, architect for the new MSMS headquarters building, has been cited again. Two more of his buildings, the McGregor Memorial Building of Wayne State University and the Benjamin Franklin Junior High School at Wayne have been cited as outstanding architectural achievements in "Creative Ideas in Glass," the quarterly publication of the American-Saint-Gobain glass products firm.

* * *

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports that the following topics were covered during the month of May on the weekly Sunday morning program over WJBK-TV in Detroit: Dentistry, Multiple Sclerosis, Chiropody, Cystic Fibrosis and the Federal Veterinarian.

(Continued on Page 1136)



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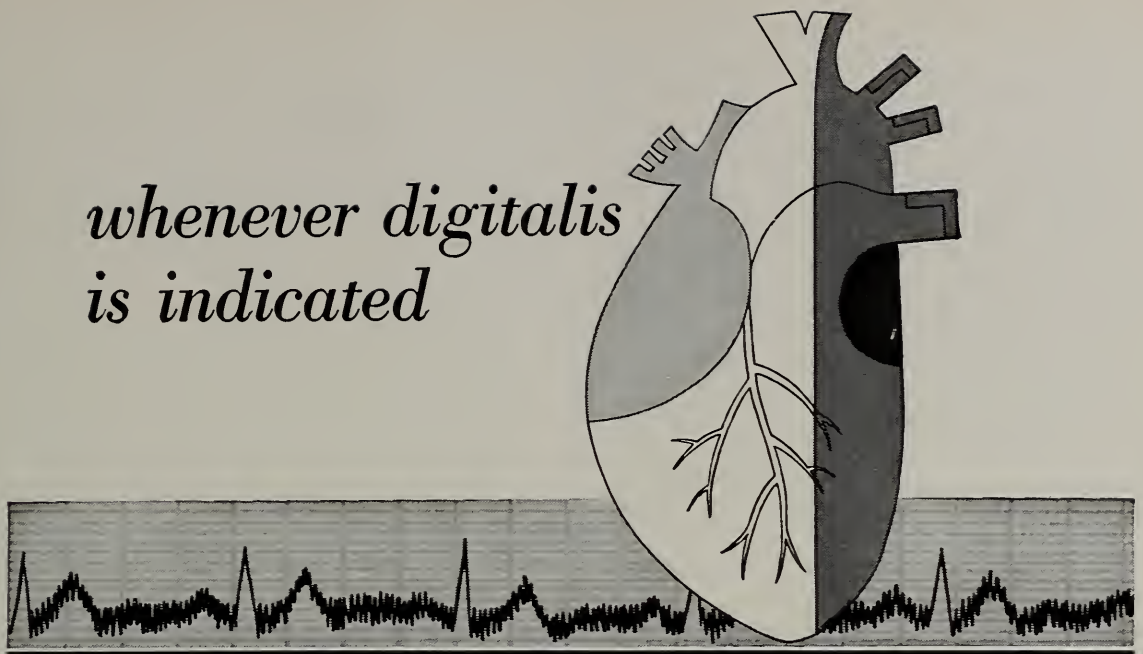

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(Continued from Page 1134)

LEADS CONFERENCE—John M. Weller, M.D., Ann Arbor, was program chairman for a conference at the University of Michigan in June about research findings in the field of kidney function and disease.

* * *

NEW OFFICERS—The Detroit Roentgen Ray and Radium Society elected officers in May for the 1960-61 year. President is Fred K. Wietersen, M.D., Detroit; president-elect, William R. Eyler, M.D., Detroit; Kenneth L. Krabbenhoft, M.D., secretary-treasurer, Detroit.

* * *

KEYNOTER—Russell S. Blanchard, M.D., Detroit, was the keynote speaker at the recent annual Management Conference for County Medical Care Facilities and County Infirmaries at Michigan State University. He is associate director of the Rehabilitation Institute of Metropolitan Detroit and spoke about "Care of the Chronically Ill and the Community."

* * *

RECEIVES SCHOLARSHIP—Gene E. Bolles, Ann Arbor, a student at the University of Michigan Medical School, has been awarded a $600 scholarship for research and clinical training in the field of the allergic diseases by the Allergy Foundation of America. Mr. Bolles will carry out his work under the direction of John M. Sheldon, M.D., and Kenneth P. Mathews, M.D., Ann Arbor.

* * *

S. K. & F. FOUNDATION—The Smith, Kline & French Foundation gave $735,611 to more than 200 organizations throughout the nation for charitable, scientific and educational purposes in 1959. The Foundation reports that 1959 disbursements, brought to $3,433,738 the amount awarded by the independent trust since it was established in 1952.

* * *

RETIRES—Theopile Raphael, M.D., Ann Arbor, will retire February 1, 1961 from the University of Michigan faculty. A member of the faculty since 1922, he is professor of psychiatry and psychiatrist in the Health Service.

* * *

EXAMINATION OF CIVIL AIRMEN—Effective June 15, 1960, the Federal Aviation Agency will require that student and private pilots be given their medical examinations by designated medical examiners. This rule reinstates a practice which was in effect from 1926 until 1945.

In announcing the reestablishment of this practice, James L. Goddard, M.D., the Civil Air Surgeon, has emphasized his previous statements that any physician may be considered eligible for designation as an examiner.

Those physicians in localities where flying activities are conducted may wish to consider filing an application for designation by writing to the Civil Air Surgeon, Federal Aviation Agency, Washington 25, D. C.

* * *

KAYES MEMORIAL MEDAL—Vincent J. O'Conor, M.D., of Chicago, has been awarded the Kayes Memorial Medal by the American Association of Genito-Urinary Surgeons for "professional accomplishments and personal attri-

(Continued on Page 1138)

WHY MEDICAL MEN FREELY RECOMMEND

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IT'S PURE . . . bottled under absolutely sanitary conditions.

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(Continued from Page 1136)

butes." Dr. O'Conor, who received his bachelor of science degree at the U-M in 1915, was cited for "significant contribution in the development of an operation for the cure of vesico-vaginal fistula."

* * *

M.D. LOCATIONS Through May 31, 1960—Assisted by Michigan Health Council—Joseph W. Rucker, M.D., Jackson.

Placed by Michigan Health Council—Robert R. Silver, M.D., Detroit (Lincoln Clinic).

* * *

ELECTED TO I.M.A. BOARD.—Seward E. Miller, M.D., Ann Arbor, was elected to the Industrial Medical Association Board of Directors at its Rochester, New York annual spring meeting of the I.M.A.

* * *

HONORED. — Ralph V. August, M.D., Muskegon Heights, was honored recently by the Muskegon Notre Dame Alumni Club, which designated him as "Man of the Year." The honor cited Doctor August's many community services and particularly his efforts with area youths. He was graduated from Notre Dame with a B.S. degree and received his medical degree from the University of Michigan.

* * *

ONE AND TWO-TENTHS MILLION DOLLARS IN GRANTS.—The American Medical Education Foundation distributed a record total of one and two-tenths million dollars to the nation's eighty-five medical schools. Funds are obtained from individual physicians and medical groups and can be earmarked by the donor for the school of choice.

* * *

JOINS HOPE PROJECT.—Mark S. Beaubien, M.D., of Birmingham, will leave San Francisco on July 1 for Indonesia as a leader in Project HOPE. Dr. Beaubien is vice president of medical operations.

Project HOPE (Health Opportunity for People Everywhere) is a privately sponsored program suggested by President Eisenhower in 1956. It will send a former Navy hospital ship outfitted as a floating medical training center to Southeast Asia in September.

HOPE is essentially a teaching program, although much medical treatment is involved. Its permanent medical staff on the ship will include fifteen physicians, two dentists, twenty-five nurses, and 30 auxiliary personnel.

* * *

MDA CAMP SET—Camp Midicha, the Michigan Diabetes Association's camp for diabetic children ages 8 through 16, will hold its session this summer from August 14 to 27. The camp is located near Columbiaville in Lapeer County. Camperships are available for those unable to pay the full fee. Recreation and instruction in diabetic care are emphasized. Information and application forms may be obtained from: Mrs. Lucille Long, Michigan Diabetes Association, 3919 John R, Detroit 1.

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- All parts are sterilizable by autoclaving or boiling, even the light carrier, lamp and connecting cord.
- All parts are interchangeable. Any obturator or light carrier can be used with any speculum.
- Brilliant distal illumination of uniform spot type with the Welch Allyn No. 2 lamp projects light deep into cavity. This lamp is unusually rugged and long-lived.
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Charles Wolf, M.D., Detroit, "Hypoglycemia," *Henry Ford Hospital Medical Bulletin,* April, 1960.

M. A. Block, M.D., B. E. Brush, M.D., and **R. C. Horn, M.D.,** Detroit, "The Incidental Carcinoma Found in Surgery for Thyroid Nodules," *A.M.A. Archives of Surgery,* May, 1960.

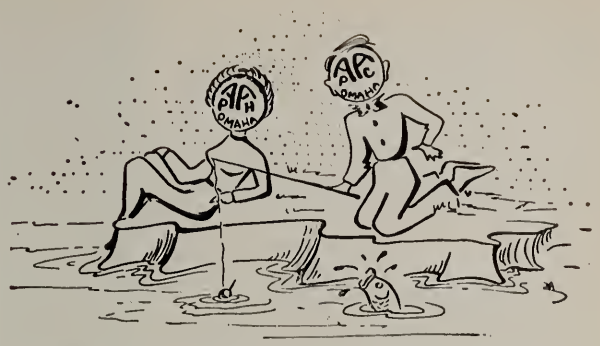
James M. Winkler, M.D., and **Darrell A. Campbell, M.D.,** Ann Arbor, "Location of Bile and Pancreatic Outlet in Upper Gastrointestinal Reconstruction," *A.M.A. Archives of Surgery,* May, 1960.

Roger F. Smith, M.D., and **D. Emerick Szilagyi, M.D.,** Detroit, "Ischemia of the Colon as a Complication in the Surgery of the Abdominal Aorta," *A.M.A. Archives of Surgery.* May, 1960.

Roland P. Brown, M.D., and **J. H. Hertzler, M.D.,** Detroit, "Congenital Prepyloric Gastric Atresia," *Harper Hospital Bulletin,* March-April, 1960.

Abraham Becker, M.D., and **Edwin Kerr, M.D.,** Detroit, "Staphylococcus Aureus Pneumonia," *Harper Hospital Bulletin,* March-April, 1960.

Maria Spatz, M.D., and **A. James French, M.D.,** Ann Arbor, "The Incidence and Significance of Coagulase-Positive Staphylococcus Aureus in Cultures at Necropsy," *University of Michigan Medical Bulletin,* March, 1960.



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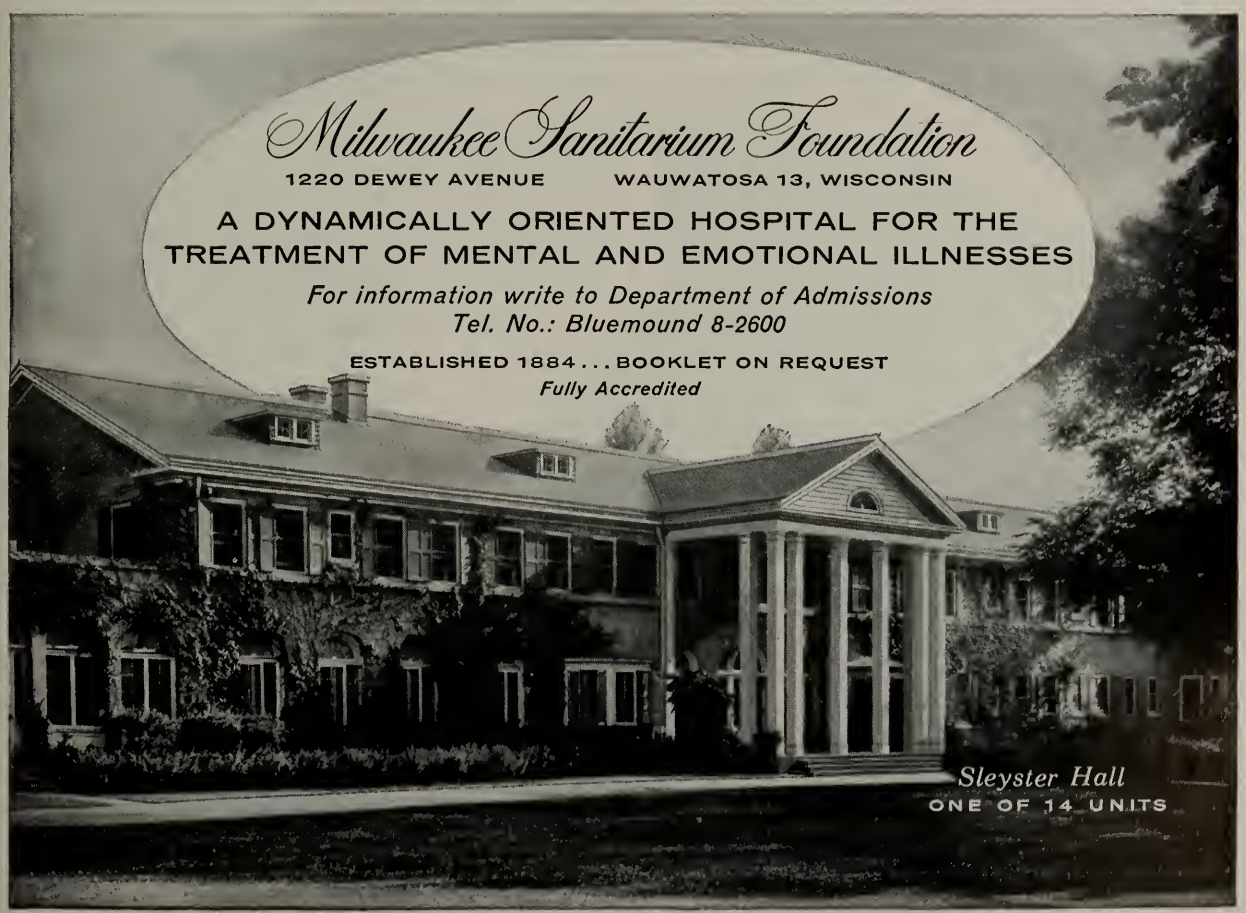

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

A TRAVELER'S GUIDE TO GOOD HEALTH. By Colter Rule, M.D. 265 pages. Garden City, New York: Doubleday & Company, Inc., 1960. Price, $3.95.

This book is for lay consumption. It was written for travelers with special emphasis on foreign countries, though much of the advice also applies (although not so stated) to the United States.

Among its good features are: Immunization required and suggested and an immunization schedule; clothing to be worn from a standpoint of health; the treatment of minor illnesses by home remedies. There is a good section on First Aid and an especially valuable glossary of medical terms in French, Italian, German and Spanish.

I think this is a fine book that should be included in every traveler's luggage.

L.P.S.

ANATOMY. A Regional Study of Human Structure. By Ernest Gardner, M.D., Wayne State University; Donald J. Gray, Ph.D., Stanford University; Ronan O'Rahilly, M.Sc., M.D., Wayne State University. 999 pages. Illustrated by Caspar Henselmann. Philadelphia and London: W. B. Saunders Company, 1960. Price, $15.00.

This book was written primarily to be used by students and younger persons in carrying out the difficulty of research in minute anatomy and profuse details. This book is extremely well written, well illustrated and sufficient in detail to cover all essentials not only of general and human anatomy but the very specialty areas.

There is an interesting review of ancient anatomy and how it has developed down through the centuries. Besides the section on General Anatomy, there is one on the Upper Limb, the Lower Limb, the Thorax, the Abdomen, the Pelvis, the Back and the Head and Neck.

The illustrations are profuse and unusually well done. We are very much pleased with this very modern and outstanding text on anatomy.

THE RELUCTANT SURGEON. A Biography of John Hunter. By John Kobler, Garden City, New York: Doubleday & Company, Inc., 1960. Price, $4.95.

The author has produced a most intriguing and unusual biography of John Hunter, the surgeon, who in spite of his inadequate training but because of his inquisitiveness, his bent for finding the unusual, became, as he has been called, the founder of Surgery. It was necessary to do body sketches matching in order to have material, and he accumulated a most exhaustive anatomical collection, including the skeleton of an 8½ foot man. He stimulated others into making medical advances, including Jenner and the development of vaccination for small pox.

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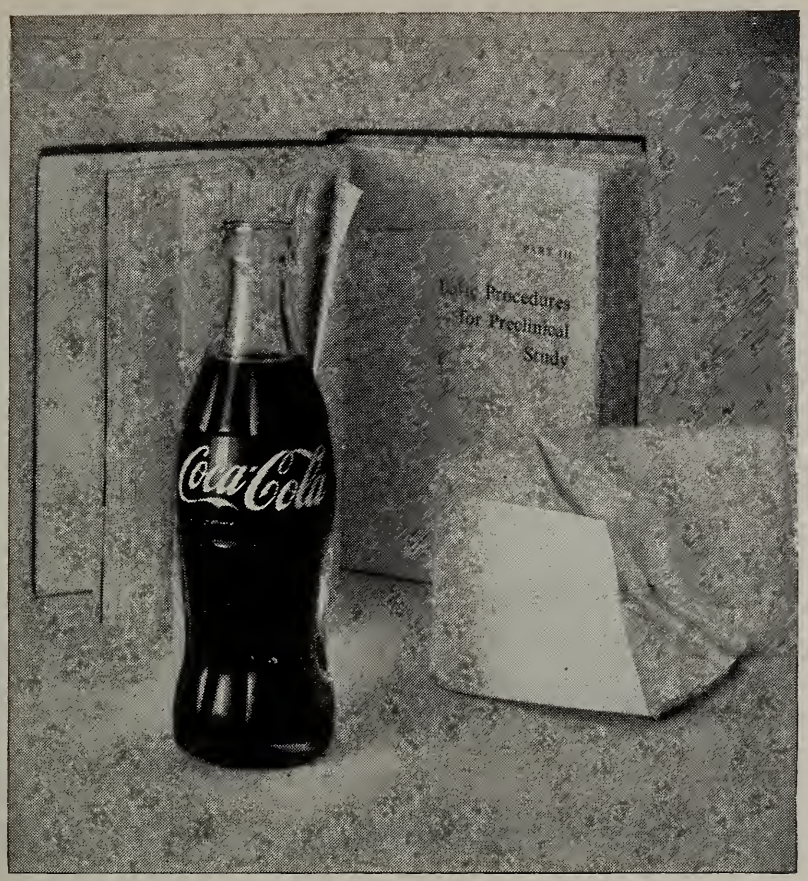

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TEXTBOOK OF OTOLARYNGOLOGY. By David D. DeWeese, M.D., Clinical Professor of Otolaryngology, University of Oregon Medical School, Portland, Oregon, and William H. Saunders, M.D., Associate Professor of Otolaryngology, The Ohio State University College of Medicine, Columbus, Ohio. 354 illustrations. St. Louis: The C. V. Mosby Company, 1960. Price, $8.75.

A new textbook in the field of otolaryngology is not at all uncommon. This one is rather well designed and adequate. It is not too thick or big to handle. It is designed primarily for students but also for practitioners. The illustrations are completely new, sharp, distinct, well-labeled, and where they have been used before—credit is given. The text has a good style—easy reading. As usual, there are sections on the various divisions and topics. There is a good area on hearing defects and treatment, also one upon speech defects and rehabilitation of persons with hearing loss. The treatment of Ménière's disease is adequate, recognizes the Furstenberg theory and technique and is given in considerable detail. We have enjoyed the book.

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THE COVER

Once a year, a number of THE JOURNAL is dedicated to a county society and this number salutes the Kalamazoo Academy of Medicine. Interested county societies are invited to request such an arrangement.

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W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
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Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
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*To fill unexpired term of R. W. Shook, M.D., deceased.

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1. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960.

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President's Page

REALISM VERSUS PESSIMISM

Milton A. Darling

President

Michigan State Medical Society

Where does realism leave off and pessimism begin?

We have heard the comment among doctors:

"Why fight the Forand-type legislative proposals this year—they'll pass next year even if we stop them today?"

"Let's just continue to practice good medicine and leave politics to the politicians."

Is this being realistic or pessimistic?

Frankly, I think these statements are not only pessimistic, I am confident they are based upon a lack of knowledge. From the findings of any number of studies we believe the following to be true:

1. That a great majority of the public doesn't want socialized medicine.
2. That socialized medicine will not be established in the early future by action of Congress.
3. That we, as doctors, have maintained a freedom to practice that is unequaled by any other profession.

It seems to be equally factual that we are in a never-ending fight to *maintain* our privileges to practice medicine free from unnecessary and unwanted governmental controls.

I think the priveleges of professional practice are worth the time we spend in fighting for them. They are worth more than that, in fact, because our continued success means our patients—which *en toto* are the public—will continue to get the highest quality of medical care!

Let us be realistic. Let us recognize what has to be done—and do it. To me this means two things:

1. The dedicated practice of an ever-improving quality of medicine at fair fees by all doctors of medicine.
2. Active participation by them and their ancillaries in the current "Campaign for Freedom"— and like activity in the future.

The former we are pledged to do; the latter is our inescapable duty both as doctors and as citizens.

Let's do our job!

MSMS Council Reports Progress

The Council of the Michigan State Medical Society at its meeting July 14-15 approved the Annual Report of The Council. The Report appears in full in this number of THE JOURNAL, beginning on page 1254.

Following is a digest of that Annual Report, briefing only some of the major progress during 1959-60:

1. The singular progress of MSMS is most apparent when we look at the scientific side of the ledger. MSMS, its active components, and its good JOURNAL, all are doing an outstanding job keeping Michigan doctors "up-to-date scientifically."

2. The Presidents' Program will be presented in detail to the 1960 House of Delegates by President-Elect Kenneth H. Johnson, M.D. The proposed Presidents' Program is a five-year project that will join Medicine with all segments of the public primarily concerned with health, working as partners in a single-objective program designed to improve the health of the people. The individual doctor is asked to do the following:

(a) Promote this concept: five more good years can be added to the working life of the people. This will be accomplished mainly by saving lives and increasing the health of younger people (rather than merely extending years of the aged.)

(b) Develop specific programs on a *campaign* basis as: (1) public health campaign; (2) safety campaign; and (3) personal health appraisal.

All these efforts are to be under county medical society leadership, with necessary financial support from any and all sources to make the Program successful.

3. The Council invites the attention of every member to the Aging Program conceived and endorsed by Michigan's medical profession. The 10 MSMS objectives should be studied carefully and in detail. They represent the program of Michigan's M.D.'s in solving the health problems of the aged.

This important medical viewpoint must be presented to all the people and be the basis for our representations at the Michigan and the 1961 White House Conferences on Aging. Remember that politicians are trying to capitalize on the plight of some of the country's oldsters, trying to enforce upon them a regimented socialized scheme of compulsory health insurance in exchange for their votes in November. It behoves every M.D. in Michigan to bring the facts and the doctors' sensible program to the attention of all voters between new and Election Day. Only the individual practitioner can make effective the doctors' well-conceived campaign to solve this imminent problem.

4. The Michigan State Medical Society is a growing organization, best exemplified by its membership figures: an increase of 3,250 members in twenty-five years—from 3,410 in June 1935 to 6,660 members at the end of June this year.

5. A look at the Society's finances shows that for the first seven

(Continued on Page 1164)

HIGHLIGHTS of MSMS Council Meeting

Meeting of June 22, 1960

- Financial Report to May 30, 1960 (first half of Society's fiscal year) was presented by Finance Committee Chairman O. B. McGillicuddy, M.D., who reviewed the consolidated balance sheet which showed that expenditures were well within budgetary estimates for the first six months. The Chairman also presented a chart showing the growth of MSMS income and expense during the years 1951-59 which indicated that MSMS expenditures had outpaced the Society's growth of income.
- Report of AMA delegates on the June 1960 meeting was presented by Chairman Wm. A. Hyland, M.D., and referred to JMSMS for publication.
- Report on MSMS representatives to Upper Peninsula Medical Society annual meeting of June 17-18 was presented and accepted with thanks.
- Report of meeting of Advisory Committee to the Executive Director included résumé of activities of the staff since the April 13 meeting of this Committee: the daily staff meetings continued not only to bring closer communication to the personnel but eliminated expense, overlapping and duplication. Council Chairman H. J. Meier, M.D., commended the executive office staff on its efficiency, especially in developing crash programs (such as preparation of two important briefs presented at Michigan Insurance Commissioner's Hearings on Blue Shield's request for rate increase).
- Chairman Meier reported in detail on the testimony presented by MSMS representatives at the Insurance Commissioner's Hearings in Detroit on May 24 and in Grand Rapids on May 27; he also distributed copies of press clippings of the excellent news stories which had been carried by daily newspapers throughout the State, based on MSMS releases.
- The Council recommended that part of the last Session of the House of Delegates be called a "General Meeting" of the Society at which time the President and other officers of MSMS would be inducted into office. This change would comply with the Bylaws (Chapter 8, Section 1) and would save considerable time on the part of members during the Annual Session. The Officers Night ceremonies (usually held Wednesdays) would thus be moved up to Tuesday evening.
- The Council Chairman invited all Councilors to hold Councilor Conferences in their Districts immediately after the Mid-Summer Session of The Council (July 16) and before the MSMS Annual Session convenes in Detroit (September 25), in order to share information with Delegates, Alternate Delegates and component society officers on MSMS activities and on matters that may be considered by the 1960 House of Delegates.
- Mrs. W. G. Mackersie of Detroit, the new President of the Woman's Auxiliary to the American Medical Association, was recognized by a resolution of The Council, which also suggested that additional recognition be given to this lady, the first from Michigan to gain this high honor, at the 1960 House of Delegates Session.
- A copy of the Michigan State Plan for Hospital and Medical Facility Construction for the year 1960-61, as drafted by the Michigan Department of Health, was considered by The Council, and was received with thanks to J. R. Homminga, Chief of the Hospital Survey and Construction Section of the Department.
- Matters of mutual interest were discussed with Michigan Health Commissioner A. E. Heustis, M.D.
- Resignation of C. N. Hoyt, M.D., of Port Huron, Councilor of the Seventh District, to take effect September 25, was accepted with extreme regret; a vote of thanks to Doctor Hoyt for his service to MSMS and to the medical profession of Michigan was placed upon The Council's minutes.
- Report on Annual Session of Illinois State Medical Society was presented by President Milton A. Darling, M.D. and Secretary D. Bruce Wiley, M.D., who represented MSMS at this convention.
- Progress Report on the new MSMS headquarters building was presented by President Elect K. H. Johnson, M.D., on behalf of the Big Look Committee. The new completion date has been set by the Architect as December 1.
- The MSMS Committees for 1960-61 were presented by President Elect K. H. Johnson, M.D., and confirmed by The Council.
- Wm. Bromme, M.D., was appointed Chairman of the 1961 Conference for Residents-Interns-Senior Medical Students, to be held coincident with the Michigan Clinical Institute in Detroit.
- Legal Counsel's Report included opinion on propriety of a doctor or hospital divulging information regarding statements; and also further elucidation on dangers in volunteering for emergency service

(Continued on Page 1164)

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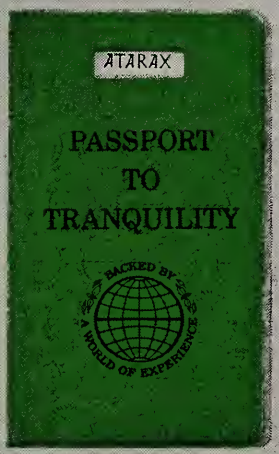

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IN ELDERLY PATIENTS well tolerated by debilitated patients	"... seems to be the agent of choice in patients suffering from removal disorientation, confusion, conversion hysteria and other psychoneurotic conditions occurring in old age." Smigel, J. O., et al.: J. Am. Geriatrics Soc. 7:61 (Jan.) 1959.	Settel, E.: Am. Pract. & Digest Treat. 8:1584 (Oct.) 1957. Negri, F.: Minerva med. 48:607 (Feb. 21) 1957. Shalowitz, M.: Geriatrics 11:312 (July) 1956.
IN ALLERGIC PATIENTS useful adjunctive therapy for asthma and dermatosis; particularly effective in urticaria	"All [asthmatic] patients reported greater calmness and were able to rest and sleep better ... and led a more normal life.... In chronic and acute urticaria, however, hydroxyzine was effective as the sole medicament." Santos, I. M., and Unger, L.: Presented at 14th Annual Congress, American College of Allergists, Atlantic City, New Jersey, April 23-25, 1958.	Eisenberg, B. C.: J.A.M.A. 169:14 (Jan. 3) 1959. Coirault, R., et al.: Presse méd. 64:2239 (Dec. 26) 1956. Robinson, H. M., Jr., et al.: South. M. J. 50:1282 (Oct.) 1957.
IN HYPEREMOTIVE ADULTS does not impair mental acuity	"... especially well-suited for ambulatory neurotics who must work, drive a car, or operate machinery." Ayd, F. J., Jr.: New York J. Med. 57:1742 (May 15) 1957.	Garber, R. C., Jr.: J. Florida M. A. 45:549 (Nov.) 1958. Menger, H. C.: New York J. Med. 58:1684 (May 15) 1958. Farah, L.: Internat. Rec. Med. 169:379 (June) 1956.

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MSMS Council Reports Progress

(Continued from Page 1161)

months of 1960, MSMS is living well within its annual budget. Roughly 97% of its estimated income already has been received; expenses at this point of the year are 58% of general fund estimates for twelve months.

6. The membership should note that, even though demands on MSMS's legislative activity were as great as ever in 1960, the lawmakers of Michigan adopted no measures inimical to the best health interests of the people. Sincere thanks go to our Michigan Legislators.

It is not necessary to point out that the activities of those persons and groups advocating socialized medicine on the national scene have been stepped up during the past year; the advocacy and pressure for Forand-type legislation is the most obvious evidence. Those opposing Medicine's viewpoint are doing so far more openly and publicly than heretofore; now, they have no fear of being labeled "socialistic." The medical profession must face challenge to save the private practice of medicine. A *unified* front and a vigorous campaign must be presented *now*, if Medicine's progress of the past is to be maintained this year and in the future.

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Highlights of MSMS Council Meeting

(Continued from page 1162)

(to be published in JMSMS to amplify original opinion).

- Public Relations Counsel's Report included information on Ciba TV program (26 weeks' series entitled "This Week in Medicine"); report on physician's career guide; progress report on Michigan Association of the Professions; and recent public presentations by members of the staff.

- Appointments: (a) Otto J. Preston, M.D., Flint, as representative to AMA Conference of Chairmen of State Medical Society Committees on Industrial Health, October 10; (b) MSMS representative to attend Annual Session of Woman's Auxiliary in September: President Elect K. H. Johnson, M.D., Lansing; (c) MSMS representatives to AMA Regional Meeting on Legislative Activities, August 12-13: L. A. Drolett, M.D. and H. W. Brenneman, Lansing; (d) Advisory to Committee on National Defense: Wm. H. Beierwaltes, M.D., Ann Arbor; (e) MSMS nomination to Michigan Hospital Service Advisory Committee: E. P. Griffin, Jr., M.D., Flint.

- Reports: (a) On meeting of MSMS representatives to Michigan Welfare League's Committee on Reimbursement to Visiting Nurses: Wm. M. LeFevre, M.D., Muskegon, reported that the Committee recommend that the Visiting Nurse Association be utilized by social welfare departments and that they be paid from public assistance funds where available.

  (b) Report of Stephen Wilson of Wayne State University College of Pharmacy, who represented MSMS at 1960 meeting of the United States Pharmacopoeial Convention, was received with thanks and referred to JMSMS for publication.

  (c) Report of L. W. Gardner, M.D., Detroit, who as MSMS representative, covered annual meeting of Board of Directors of North Central District Blood Bank Clearing House, Chicago, June 11, was received as information, with thanks.

Health Benefits Program

At least 1,450,000 employes have enrolled in the Federal employes health benefits program, according to preliminary and incomplete registration figures received from thirty-five of the thirty-eight carriers of participating health benefit plans, the Civil Service Commission has announced. The new program went into effect early this month.

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AMA Would Help Near-Needy Aged

The American Medical Association House of Delegates, at its 109th annual meeting in Miami Beach, supported a plan of voluntary grants-in-aid financed by Federal funds to help provide health care for the "near-needy" aged.

Other major subjects involved in policy actions were pharmaceutical issues, occupational health programs and relations with allied health groups.

Leonard W. Larson, M.D., of Bismarck, N. D., former chairman of the AMA Board of Trustees and of the AMA Commission on Medical Care Plans, was named president-elect by unanimous vote. Dr. Larson will succeed E. Vincent Askey, M.D., of Los Angeles, at the Association's annual meeting in June, 1961, at New York City.

Health Care for the Aged

After considering a variety of reports, resolutions and comments on the subject of health care for the aged, the House of Delegates adopted the following statements as official policy of the American Medical Association:

"Personal medical care is primarily the responsibility of the individual. When he is unable to provide this care for himself, the responsibility should properly pass to his family, the community, the county, the state, and only when all these fail, to the federal government, and then only in conjunction with the other levels of government, in the above order. The determination of medical need should be made by a physician and the determination of eligibility should be made at the local level with local administration and control. The principle of freedom of choice should be preserved. The use of tax funds under the above conditions to pay for such care, whether through the purchase of health insurance or by direct payment, provided local option is assured, is inherent in this concept and is not inconsistent with previous actions of the House of Delegates of the American Medical Association."

The House also urged the Board of Trustees "to initiate a nonpartisan open assembly to which all interested representative groups are invited for the purpose of developing the specifics of a sound approach to the health service and facilities needed by the aged, and that thereafter the American Medical Association present its findings and positive principles to the people."

In connection with an educational program regarding the aged, the House declared that "the American Medical Association increase its educational program regarding employment of those over sixty-five, emphasizing voluntary, gradual and individualized retirement, thereby giving these individuals not only the right to work but the right to live in a free society with dignity and pride."

The House also gave wholehearted approval that state medical societies be urged to take an active part in state conferences and the White House Conference on Aging.

Pharmaceutical Issues

The House agreed with representatives of the pharmacy profession that the unorthodox practice of mail order filling of prescription drugs is not in the best interest of the patient, except where unavoidable because of geographic isolation of the patient.

The House also directed the Board of Trustees to request the Council on Drugs and other appropriate Association councils and committees "to study the pharmaceutical field in its relationship to medicine and the public, to correlate available material, and after consultation with the several branches of clinical medicine, clinical research, and medical education and other interested groups or agencies, submit an objective appraisal to the House of Delegates in June, 1961."

Occupational Health Programs

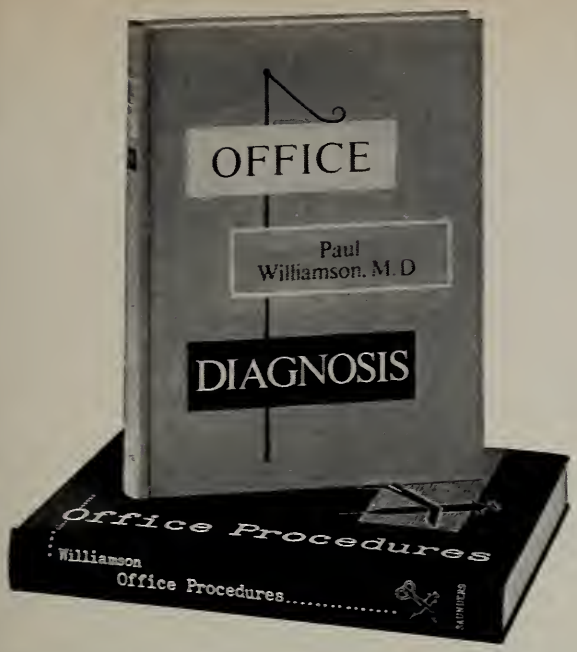
The House approved a revised statement on the "Scope, Objectives and Functions of Occupational Health Programs," which was originally adopted in June, 1957. The new statement contains no fundamental alterations in AMA policy or ethical relationships, but it adds some important new material, for example, the House now urges greater emphasis on the preventative and health maintenance concepts of occupational health programs.

The House also accepted a suggestion that the AMA Council on Occupational Health undertake a project to study and encourage the employment of the physically handicapped.

Allied Health Groups

The House approved the final report of the Committee to Study the Relationships of Medicine with Allied Health Professions and Services and commended it as "a monumental work." The report covers the present situation, future implications and recommendations, including guiding principles and approaches to

(Continued on Page 1168)



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By PAUL WILLIAMSON, M.D. 412 pages, 8" x 11", with 1100 illustrations. $12.50. *Published 1955.*

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Say you saw it in the Journal of the Michigan State Medical Society

Allied Health Groups

(Continued from Page 1166)

activate physician leadership. The House strongly recommended that AMA activity in this vitally important area be continued and it approved the appointment of a Board of Trustees committee to carry on the work.

The House took action involving relations between the medical profession and the National Foundation. It adopted a statement of policies for the guidance of state medical associations and recommended that they be adopted by all component medical societies. These policies cover such subjects as membership of medical advisory committees at the chapter level, the function of these committees, and basic principles concerning financial assistance for medical care, payment for physicians' services and physicians' responsibilities for constructive leadership in medical advisory activities.

Miscellaneous Actions

In dealing with reports and resolutions on a wide variety of other subjects, the House also:

Strongly reaffirmed its support of the Blue Shield concept in voluntary health insurance and approved specific recommendations concerning AMA Blue Shield relationships;

Approved a contingent appointment of not more than six months for foreign medical school graduates who have been accepted for the September, 1960, qualification examination;

Agreed that the American Medical Association should sponsor a second National Congress on Prepaid Health Insurance;

Approved the establishment of a new "Scientific Achievement Award" to be given to a non-physician scientist on special occasions for outstanding work;

Approved the following schedule for future annual meetings: Atlantic City, 1963; San Francisco, 1964; and New York City, 1965;

Approved the objectives of the AMA Commission on the Cost of Medical Care;

Urged individual members of the Association to take a greater interest and more active part in public affairs on all levels;

Reaffirmed its opposition to compulsory inclusion of physicians under Title II of the Social Security Act and recommended immediate action by all AMA members who agree with that position;

Urged reform of the federal tax structure so as to return to the states and their political subdivisions, their traditional revenue sources;

Asked state and county medical societies to make greater use of AMA recruitment materials in presenting medicine's story to the nation's high schools;

Requested the Board of Trustees to initiate a study of present policy regarding the required content and method of preparing hospital records;

Directed the Board of Trustees to develop group annuity and group disability insurance programs for Association members; and

Expressed grave concern over the indiscriminate use of contact lenses.

Addresses

Dr. Orr, in his final report to the House at the opening session, urged medical societies to "adopt" rural villages, cities and regions in underdeveloped parts of the world and to send them medical, clinical and hospital supplies.

Dr. Askey, in his inaugural address, urged intensified, accelerated effort in five areas—medical education, preparations for the White House Conference on Aging next January, health insurance and third party relationships, mental health, and membership relations.

Michigan M.D.'s Honored

W. A. Hyland, M.D., Grand Rapids, treasurer of MSMS, was elected a member of the executive committee of the Conference of Presidents and Other Officers of State Medical Associations, and was elected also chairman of the Constitution and Bylaws Council.

William Bromme, M.D., Detroit, member of The MSMS Council, was elected treasurer of the National Medical Veteran Society.

Arthur C. Curtis, M.D., Ann Arbor, chairman of the MSMS Committee on Syphilis, was chosen chairman of the section on dermatology of the AMA.

The Scientific Section

At the 109th Annual Session there were many from Michigan acting as Section officers, speakers of panels, discussants or presented papers contributing to the scientific Assembly. These are worthy of mention in addition to those who had official administrative duties. This list, all Doctors of Medicine unless otherwise specified, will mention the name and address, but no attempt to list the title of paper or presentation:

Richard A. Oberfield, Detroit; Renato C. Starrico, Detroit; Kimie Fukuyama and I. A. Bernstein, Ann Arbor; James E. Greer, Richard R. Menard, and Clarence S. Livingood, Detroit; William M. Tuttle, Detroit; William R. Eyler, Detroit; Stewart N. Nickel, Roy Frame and Jos. Bebin, Detroit; and Wallace W. Tourtelloiie, Ann Arbor; Robert K. Nixon and William O'Rourke, Detroit; C. Donald Albers, Grand Rapids;

(Continued on Page 1170)

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The Scientific Section

(Continued from Page 1168)

Joseph H. Shaffer, Detroit; Frederick C. Swartz, Lansing; E. S. Gurdjian, Detroit; J. Reimer Wolter, Ann Arbor; Mathew Aloern, Harold F. Falls and Gilbert B. Lee, Ann Arbor; Joseph A. Johnston, Michael James Sweeney, Richard Brown, Gordon Manson and John Walker Maloney, Detroit; James W. Rae, Jr., Ann Arbor; Edwin M. Smith, Ann Arbor; Thaian Leucutia, Detroit; John K. Ormond, Pontiac; Marvin W. Woodruff, Richard L. Malvin, and Ian M. Thompson, Ann Arbor; Jack Lapides, Ann Arbor; A. Waite Bohne, Richard C. Urwiller, and Donald F. Armento, Detroit; Robert J. Priest, Detroit.

Scientific Exhibits: Philip C. Brockman, Grand Rapids high school student, a prosthetic tendon; John W. Sigler, Detroit; Joseph L. Flemming, Robert S. Knighton, and William C. Noshay, Detroit; Paul R. Winder, Richard M. Caplan, Walter D. Block, and Arthur C. Curtis, Ann Arbor; Conrad R. Lam, Rodman E. Taber, Edward Green, and Ellet Drake, Detroit; David J. Sandweiss, Marcus H. Sugerman, Richard Remington, Gilbert M. Berman, Jack A. Litwin and Alice Beecher, Ann Arbor and Detroit; Virgil N. Slee, G. Stanley Woodson, Lorenzo Roderiguez-Feralta, Ann Arbor; J. Martin Miller, Melvin A. Block, Raymond Mellinger, Detroit; Jan Nyboer, Javid Jay, and Robert Davidson, Detroit; E. S. Gurdjian, W. G. Hardy, D. W. Lindner, M. Croll, S. J. Fiegel, J. E. Lofstrom, J. E. Webster, and J. L. Whelan, Detroit; J. F. Johnson and N. J. Furiosi, Detroit; Brenton M. Hamil, W. B. Eyler, J. W. Rebuck, G. A. LoGrippo, Detroit; William Umiker, Donald Korst, Ann Arbor; W. C. Schaefer, C. E. Rupe, R. E. Birk, and J. C. Sheracki, Detroit; Walter M. Whitehouse, Robert Rapp and Howard E. Fink, Jr., Ann Arbor; Irving Feller and Marion De Weese, Ann Arbor; Joseph L. Pomka, Brock E. Brush, R. O. Amtoni and R. B. Marshall, Detroit; John M. Sheldon, Narry A. Towsley, Park W. Willis III, George H. Lowrey, G. Thomas Flotte, and Samuel J. Behrman, Ann Arbor.

The last group listed, Drs. Sheldon, Towsley, Willis, Lowrey, Flotte and Behrman presented a most unusual and instructive exhibit designed to arouse and increase the interest of practicing physicians for continuing education. It illustrated the Michigan Plan for postgraduate medical education as implemented by the University of Michigan Medical Center, Wayne State University College of Medicine, Michigan State Medical Society, and the Michigan Department of Health. The postgraduate educational opportunities were graphically demonstrated in order to inform licensed physicians graduated from approved medical schools of the program.

16th Conference of Presidents and Other Officers

Back in 1945, on April 27 and 28, at the Wardell Hotel in Detroit, upon invitation of Andrew S. Brunk, M.D., president of the Michigan State Medical Society, the Presidents and Presidents-Elect of 17 state medical societies assembled as guests of the Michigan State Medical Society. So many items of common interest not then met by recognized groups were found that a permanent organization was provided. Annually the Presidents' Conference has presented outstanding and challenging programs.

The sixteenth Presidents' Conference in Miami lived up to precedent. Following talks by the President and the President-Elect came Mississippi's Governor, Ross Barnett, an attorney serving his first term. He said the states, not the Federal government, should take care of needy elderly persons' health care. A handful of "power mad and greedy politicians," he said, are pushing "socialized medicine" in an effort "to dictate our every action from Washington."

Paul M. Butler, National Chairman of the Democratic Party, predicted the Democratic Convention will endorse a political plank calling for approval of the controversial Forand Bill.

There was a scattering of "boos" when Butler told the audience that a Los Angeles official recently had testified that "the high cost of medical care is the most important reason for suicide among the aged."

Sen. Thruston B. Morton (R., Ky.), GOP National Chairman, asserted that his party is flatly opposed to any compulsory approach as embodied in the Forand measure. He said he believed the Republic convention will approve a voluntary program that could be worked out in conjunction with the states.

Honor Editor Haughey

Wilfrid Haughey, M.D., Battle Creek, was honored for having attended the past fifty meetings of the American Medical Association House of Delegates. He had served as Delegate at St. Louis in 1910, thus 1960 marks his 50th anniversary. The AMA has never given this recognition before.

The honoring resolution was adopted by a unanimous standing vote of the AMA delegates.

Doctor Haughey was attending this AMA meeting in his capacity as editor of THE JOURNAL. In past years, he had attended either as Secretary of MSMS, Michigan Delegate to the AMA or as editor.

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Mrs. Mackersie Urges More Active Citizenship

Doctors and their wives "must answer the call of courageous citizenship" to preserve and enhance American medicine's great heritage.

In her inaugural message at Miami Beach as the president of the Woman's Auxiliary to the American Medical Association, Mrs. William Mackersie, Detroit, stressed more active personal citizenship as a major goal for Auxiliary members during the year ahead. Other top priority projects outlined by Mrs. Mackersie include recruitment for health careers, positive legislative action and fund-raising for the nation's medical schools.

Mrs. Mackersie

Mrs. Mackersie succeeds Mrs. Frank Gastineau, Indianapolis, Indiana. The new president-elect is Mrs. Harlan English, Danville, Illinois.

At Miami Beach, the Auxiliary presented a check for $170,230 to the American Medical Education Foundation.

For the first time, the "Ethel Gastineau Trophy" was awarded to the Woman's Auxiliary to the Tennessee State Medical Association for outstanding efforts on behalf of the AMEF.

AMEF awards of merit were presented to the auxiliaries of the following state medical societies: Hawaii, Alaska, Nevada, New Hampshire, Indiana, Tennessee, Wyoming, Arizona, Ohio and Alabama. The national Auxiliary, Mrs. Gastineau and Mrs. Karl F. Ritter, Lima, Ohio, also received merit awards.

The Auxiliary convention heard Edward L. Bortz, M.D., Philadelphia, former AMA president, say, "The time has come to draw up a blueprint on how to live to be 100 by taking advantage of the health information we have today." Louis M. Orr, M.D., then AMA president, urged members to a greater awareness of the need for medical knowledge, supplies and equipment by underdeveloped nations throughout the world.

Other business sessions were devoted to state and national reports, an outstanding film program, round table discussions and speeches by AMA staff personnel and medical leaders.

Heidenrich to Head UP Medical Society

John R. Heidenrich, M.D., Daggett, was elected president of the Upper Peninsula Medical Society at the closing business session of the annual convention June 17-18 in Ecanaba. George H. Hopson, M.D., of Menominee, was named secretary-treasurer.

With election of the two officers from Menominee County also came the convention for 1961, which will be held in Menominee next June.

The convention wound up Saturday night with a banquet and dance at the House of Ludington. Banquet speaker was Ann Landers, columnist of the *Chicago Sun-Times*.

Saturday morning's session heard lectures by Frank H. Mayfield, M.D., University of Cincinnati Medical School Department of Neurosurgery, on "The Management of Head Injuries"; Edward Stepan, M.D., of Chicago, on "Allergy Diseases in Children," and Richard L. Rapport, M.D., of Flint, on "The Fractured Rib—A Significant Injury."

Out-of-State Meetings

The 48th Annual Meeting of the Clinical Orthopaedic Society will be held in Milwaukee, October 20, 21 and 22, 1960. The headquarters will be the Schroeder Hotel, with clinical sessions being held in the Memorial Center on the Lake.

* * *

The University of Cincinnati reports there are still places available for the Postgraduate Course in Heart Disease, September 7-8-9-10, 1960. Write Johnson McGuire, M.D., College of Medicine, University of Cincinnati, Cincinnati 29, Ohio.

Michigan Medical Meetings and Clinic Days

September 9-11	Medical-Dental Seminar on Hypnosis	Detroit
September 25-30	Michigan State Medical Society. Annual Session	Detroit
September 27-29	Annual Meeting, Woman's Auxiliary to Michigan State Medical Society	Detroit
September 28-29	Annual Meeting, Michigan State Medical Assistants Society	Detroit
December 1-3	Western Surgical Association	Detroit

UPI Correspondent Lauds Work Of Flint Doctors' Committee

Washington correspondent for United Press International, Louis Cassels, wrote a recent feature story on alcoholism based on the booklet, "A Happy Solution to the Problem of Alcoholism," published by the Genesee County Medical Society.

The story received national attention and Mr. Cassels praised the Flint doctors who prepared the booklet. He urged wider distribution of the material which emphasizes that alcoholism is a disease, and those who are stricken with it cannot simply "will it away."

* * *

Saginaw Doctors Succeed in Obtaining Ambulance Licensing for City

Spearheading a drive to regulate and license ambulances and attendants, the Saginaw County Medical Society was rewarded recently when the City Council passed a local ordinance based on recommendations of the Society's Trauma Committee.

The ordinance will license ambulances and attendants and incorporate training and equipment requirements. Each ambulance will be manned by two persons, a qualified attendant with first-aid training and a driver who may or may not be a licensed attendant. Equipment to be carried in each ambulance is specified in the ordinance.

An ambulance code was first suggested by the Saginaw doctors in March and was subject to growing controversy until May when a revised code was accepted by The Council without objection.

Detroit Doctor Selected Father of Year--- Is Bachelor!

A Detroit bachelor with some 8,000 "children" was named Father of the Year in June by the mothers and children he had delivered in forty years of practice as an obstetrician.

Owen C. Foster, M.D., was greeted by 500 men and women when he walked into the Grand Ballroom of the Sheraton-Cadillac Hotel presumably to have lunch with a friend who was in on the surprise. Nearly all those at the luncheon were women patients of Doctor Foster when they had their babies.

Sitting opposite Doctor Foster at the head table were 40 young people, each of whom he had brought into the world—one for every year he has practiced.

He was given presents and the key to the city by Detroit's Mayor Miriani.

Heads Senior Citizen Planning Unit

Clayton K. Stroup, M.D., Flint, has been named chairman of the

community-planning committee for senior citizens, a unit of the Council of Social Agencies.

Doctor Stroup, chairman of the group's health subcommittee, is a past president of the Genesee County Medical Society.

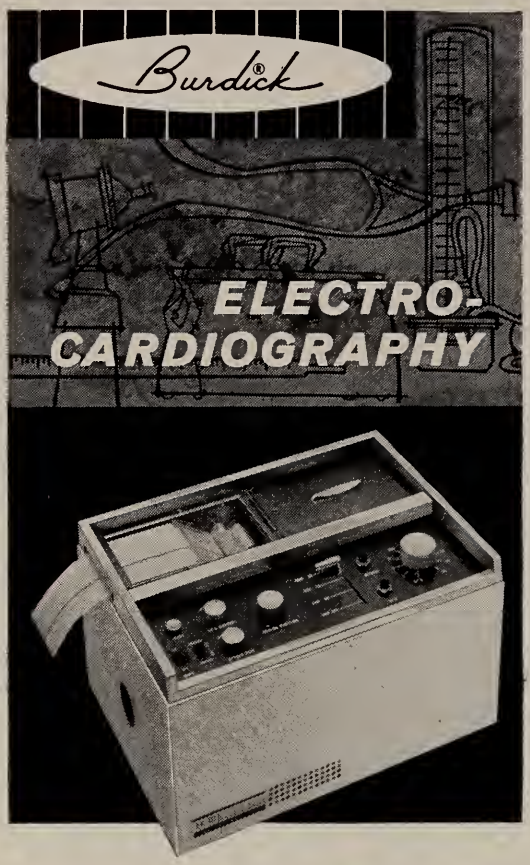
The planning committee recently published findings and recommendations based on an extensive study of older persons in Flint.

New Radio Series Ready

The University of Michigan Broadcasting Service (WUOM) will initiate a 56-program series this fall on "Human Behavior; Social and Medical Research." Producer Glen Phillips traveled throughout the United States for six months interviewing leading educators, doctors, sociologists, and psychologists in the field of human behavior and medical research. Phillips has subdivided the series into four parts: "Medical Research," "Behavioral Science Research," "Aspects of Mental Health," and "The Challenge of the Aging."

One of the programs on "Aspects of Mental Health" includes the views of Paul Dudley White, Boston physician, on "Safeguards Against Mental Illness."

The series, produced by the U-M Broadcasting Service, will be released nationally by the NAEB.



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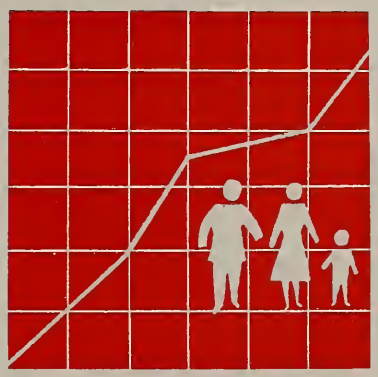
Researchers Find "Spectacular" Growth in Health Insurance



Private health insurance in the United States is well on the way toward accomplishing what many experts in the field of social security stated on innumerable occasions was impossible, namely, near universal coverage of the whole population.

This is the principal finding of Rita R. Campbell and W. Glenn Campbell in a study, "Voluntary Health Insurance in the United States." Professor W. Glenn Campbell is director of the Hoover Institution on War, Revolution, and Peace at Stanford University and his wife has served as a staff economist on the House Ways and Means Committee.

* * *

MANY OF THE FINDINGS of this study are pertinent to the current controversy concerning a national health program for the aged. On the question as to whether the aged can afford to pay for their own health care, the authors conclude:

> "Based on the extensive evidence examined in this study, it seems clear that a substantial majority of today's aged can afford to pay for health insurance and that in the future the percentage will be even higher. Certainly the four million persons over 65 who are either employed or wives of employed persons can pay for their own health care. In addition, the almost universal coverage of OASDI, the continuing and rapid expansion of private pension plans, and the steadily increasing real national income are signs pointing to the future when the great majority of the retired aged will be, if they are not already, out of the category of those unable to pay for their own health care."

* * *

THE AUTHORS DESCRIBE the growth of private health insurance as "spectacular" and a "striking example of the unparalleled contributions that have been made to American life by voluntary and co-operative effort."

The authors find that the percentage of the nation's resources devoted to health is higher in the United States than in Great Britain—a country with governmental provision for medical care for all. They also point out that:

> "Experience with the British National Health Service clearly demonstrates that provision of health care by government does not solve the problem of "adequate" health care for all, as is so often claimed by proponents of compulsory health insurance."

* * *

ON THE HIGH cost of medical care, the authors state that "it is obvious that the rise in hospital costs is the important cause of concern."

The Campbell study was published by the American Enterprise Association of Washington, D. C.

Mortgage Aid to Health

"There's a tremendous need for more nursing homes run by physicians." And a good many physicians are apparently eager to help meet this need by building and operating their own nursing homes. That's the report from Frank C. Bateman, executive director of the American Nursing Home Association.

Previously, the few doctors who actually built nursing homes had

to rely on private financing. Money from Government agencies was usually available only for non-profit projects. But now a new Federal Housing Administration program makes mortgage insurance available for building privately owned nursing homes.

National Blue Shield Study Commission Established

A "Blue Shield Study Commission" has been established by the National Association of Blue Shield Plans to undertake a major study of the "differences of concept and coverage" among the nation's 75 Blue Shield Plans which "have resulted in different approaches to the problem of providing adequate protection to the public."

Donald Stubbs, M.D., chairman of the Board of the National Association, has pointed out that while the setting up of this Commission was directed by the Annual Conference of Blue Shield Plans in Los Angeles in April, its area of study and recomemndation is logically related to the action of the AMA House of Delegates in Miami on June 14, in reiterating AMA support of the Blue Shield Concept and providing for strengthened liaison between AMA and Blue Shield Plans.

"The job of this new Blue Shield Study Commission," said Dr. Stubbs, "is to identify and pinpoint the specific problems that must be solved and the needs that must be met within Blue Shield if it is to be able to extend the broadest possible medical prepayment protection, under medical auspices, to the greatest possible number of people, and thus make the maximum contribution both to the public welfare and to the free practice of medicine."

Chairman of the nine-man Commission is Dr. Henry S. Blake of Topeka, Kansas.

Three of its members are the AMA representatives on the Board of Directors of the National Blue Shield Association: Drs. David B. Allman of Atlantic City, N. J.; George M. Fister of Ogden, Utah; and Dwight H. Murray of Napa, Calif.; and other members are Drs. Carl R. Ackerman of New York City, Board Chairman of the New York City Blue Shield Plan; A. A. Morrison of Ventura, Calif.; Donald N. Sweeny, Jr., of Detroit, and also Lewis G. Hersey, Executive Director of the Medical Service Bureau (Blue Shield Plan) of the Utah State Medical Association; and Walter R. McBee, Executive Director of the Texas Blue Shield-Blue Cross Plans.

One of the newer Members of the Michigan Medical Service Board is included in this list, Dr. Sweeny. Mr. Hersey was formerly in Michigan.

Vermont Study Shows Most Oldsters Can Pay Medical Bills

More than 80 per cent of elderly Vermonters plan to pay their medical bills through Blue Shield, private insurance, savings or from current income.

This figure comes from a sample survey of the over-65 group made by the Committee on Aging of the Vermont State Medical Society. It emphasizes that Vermont has the highest percentage of people over 65 in the U.S.

Among other findings: 50 per cent of the 5,172 elderly citizens questioned are on Social Security, 16 per cent are on Old Age Assistance and 13 per cent on other retirement plans. Forty per cent say they would pay their doctors' bills through Blue Shield, and 28.9 per cent say they would foot the bill from savings or income.

The survey also revealed that doctors did not charge 2.3 per cent of the patients, and reduced charges in 12 per cent of cases, though Vermont MDs have the nation's lowest incomes.

Hospital Beds for Heart Cases

The need for hospital beds for patients suffering from heart disease, cancer and other long-term chronic diseases can be eased if government agencies will adapt existing facilities to their use, according to John A. Cowan, M.D., of the Michigan Department of Health.

Dr. Cowan listed tuberculosis sanatoriums, unused nursing residences and county medical care facilities as possible stop-gaps in expanding available hospital space for chronic disease patients. Dr. Cowan, director of the Division of Tuberculosis and Adult Health, noted that improved treatment of tuberculosis has caused a nationwide decline in the need for hospital beds for this disease.

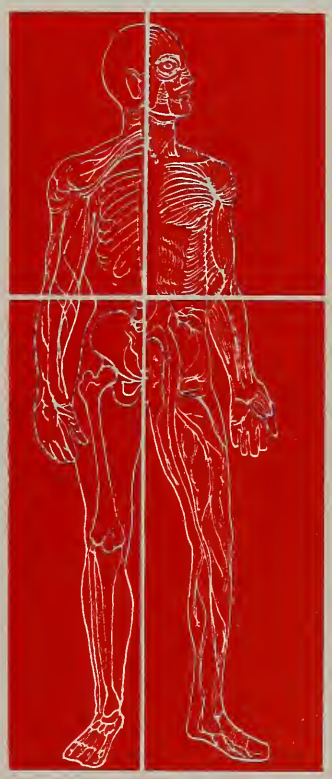
"Although the average tuberculosis hospital is by no means ideal," he said, "it can be an acceptable substitute until such time as chronic disease hospitals can be financed and constructed."

"ARE M.D.s TIGHT-FISTED? The Louisiana State Medical Society, in a recent survey of all its members, found that the average doctor gives an estimated $3,531 annually in free medical care to 341 indigent patients; gives $1,098 in cash to charity."—*Medical Economics*, December 7, 1959.

Right Heart Catheterization

An Experience in Establishing this Technique in a Smaller Community and an Evaluation of its Contribution in the Local Management of Cardiologic Cases

H. E. DePree, M.D., F.A.C.P.
Kalamazoo, Michigan



THE IMPRESSIVE developments of the past ten years in the understanding and diagnosis of heart diseases have been to a large extent due to the elaboration of newer techniques of study as well as a clarification and newer interpretations of the results of older techniques. Many of these new techniques impose a requirement in terms of rather expensive and elaborate equipment and specially trained technical personnel. In addition, a new technical skill and a new physiologically oriented knowledge must be developed by the physician who would desire to perform and use these techniques. Consequently, these methods have largely been established only at the medical centers or in large cities. At the same time, the purpose of, and the stimulus for, the application of these more elaborate investigations have been the advent of feasible surgical therapeutic manuipulations. Many competent surgeons, well experienced in many of these established techniques of cardiac surgery, are being graduated from training in the recognized institutions. Many of these surgeons are establishing themselves in medium-sized communities throughout the country.

In 1954, as a practicing internist with a special interest in cardiovascular disease and encouraged by the thoracic surgeons, I decided to explore the possibility of establishing more definitive cardiovascular diagnostic techniques (initially, right heart catheterization) here in Kalamazoo. At that time this technique was only available at distant medical centers.

Several important considerations made the introduction of right heart catheterization to our community seem reasonable and important. First, the geographic location of Kalamazoo in the northeast corner of the southwest quarter of the state, in which area it is the largest city, provides the status of a minor medical center for the area. As a result, a considerable amount of clinical material is referred for consultation from surrounding small communities. Secondly, under the Michigan State Medical Society's rheumatic fever program an active local clinic had been operating for several years, and provided a source of many patients with congenital as well as rheumatic heart disease. Thirdly, patients referred for heart study to the centers at the University of Michigan, Detroit and in Chicago

were subjected to prolonged delays often because of the increasing volume of cases at these institutions. Finally, a well-trained thoracic surgeon entered practice in our community.

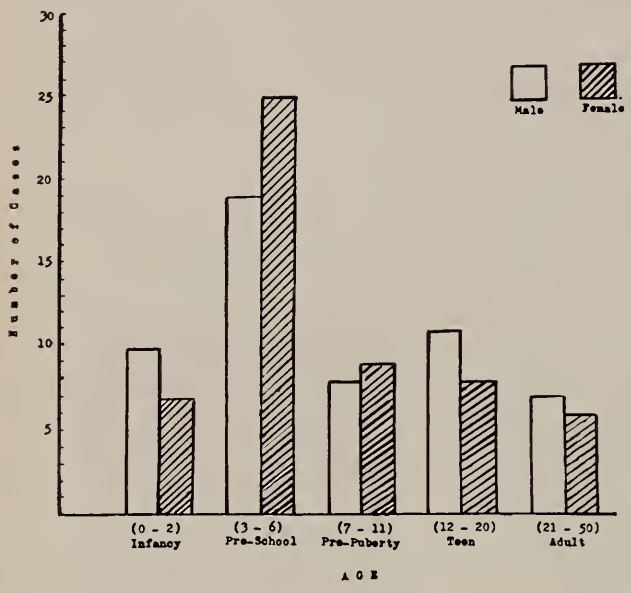
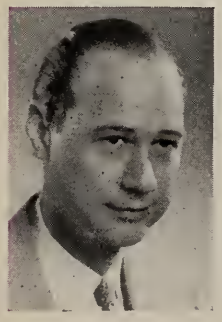


Fig. 1.

A progressive minded Board of Trustees of Bronson Methodist Hospital of Kalamazoo was convinced that a need for this technique existed and they generously agreed to set aside money for investment in equipment. Two laboratory technicians were selected and were trained in blood gas analysis at the Upjohn Company Research Laboratories in this city. An opportunity was arranged for me to spend one day a week at the laboratory of Dr. Benjamin Gasul at the Cook County Children's Hospital, Chicago, Illinois. I continued this training experience weekly for one and one-half years, so that I had performed fourteen catheterizations myself at the end of this period. My technicians also made several visits to Chicago to observe the procedures. We then made several "dry runs" with our own equipment and performed our first right heart catheterization in July 1956. The original technique was that of Cournand and Richards[1] but we soon modified our procedure slightly to include the use of the Cuvette oximeter as adapted by Wood[2] and in 1958 added the use of dye dilution curves.[3,4]



THE AUTHOR

H. E. DePree, M.D.

Figure 1 is a graphic summation as to age and sex of the first 110 cases studied with right heart catheterization in our laboratory. It is apparent that the largest group was in the pre-school age, reflecting, I believe, the uncovering of these cases so often in pre-school clinic activities. Sex distribution is overall about equally divided. These patients all come from within a radius of fifty miles of Kalamazoo. These patients had all been referred either to the Rheumatic Fever Clinic or to me. Clinical diagnosis before right heart study were arrived at after analysis of history and physical examination augmented by fluoroscopy and electrocardiographic study. At this point, a decision was made as to the need for catheterization. Table I is a tabulation of the various lesions encountered including a comparison with the frequencies in Paul Wood's reported series.[5] The incidence of many of the more common lesions in our experience is seen to be similar to the incidence in Wood's series, reflecting a fairly well rounded group of cases.

Since the ultimate desirable treatment of congenital cardiac lesions is anatomic surgical correction, all diagnostic manipulations are directed toward establishing whether or not surgical correctability exists, or is necessary. The final decision in this regard must of course be made by those who would perform the corrective procedure. We do not as yet have available in Kalamazoo a by-pass oxygenator pump for correction of lesions requiring this handling. Consequently, these lesions must be referred to "distant centers." If, in most cases, the decision for or against surgery could be made locally by the adjunct of right heart catheterization and/or angiocardiography, it would be possible to screen a large number of cases which would otherwise be required to have their work-ups prolonged at a "center" distant from home and consequently at added expense and inconvenience. Table II is an attempt to portray our experience as to the value of right heart catheterizations both in accuracy of diagnosis and in a decision regarding surgery. A very important dividend of our experience has been the development of an increasing accuracy of diagnosis clinically on the part of pediatricians, surgeons and all concerned in the handling of these patients locally, since right heart catheterization has been available. In Table II it can be seen that approximate-

ly 50 per cent of the cases were not diagnosed correctly clinically. Although it cannot be shown, this percentage was significantly lower in the latter part of the series. The grouping, "Clinical Diagnosis of Surgically Correctible Lesions before Catheterization" requires some explanation. This subdivision is designed to contain those cases which would ordinarily have been referred immediately to some "center" for possible surgical treatment. Consequently, it seems significant that of this group only 30 per cent were actually "referred for surgery" whereas 44 per cent were felt not to require surgery, and 36 per cent were found to be incorrectly diagnosed clinically when right heart catheterization was performed. Some patients fell into both of the latter groupings which explains the fact that the combined percentage of these two groups exceeds 70 per cent. A summation of the relative importance of right heart catheterization is attempted in the final classification in Table II. Here, cases falling into the group of those in which catheterization established no need or possibility for surgical correction, or an incorrect diagnosis, plus those surgical candidates unsuspected and uncovered and those in which important substantiation of contra-indicated surgical treatment, altogether yielded a total percentage of 73 out of the entire series of 110 patients. This would seem to amply demonstrate the importance of the procedure of right

TABLE I. LESIONS IDENTIFIED

Diagnosis after Catheterization	Number of Cases	Per Cent of Total	Per Cent Incidence in Congenital Heart Disease According to Wood*
Auricular septal defect and/or anomalous pulmonary veins**	17	15	17.5
Ventricular septal defect			
Predominant left to right shunt	13	12.8	10
Alone			
Predominant right to left shunt	2	1.8	3
Non-cyanotic	3	2.7	1.3
With pulmonic stenosis			
Cyanotic	5	4.5	
Pulmonary stenosis			
Isolated	14	12.7	11.5
With auricular defect	2	1.8	2.5
Patent ductus arteriosus	13	12.8	12.5
Common A-V canal defect	4	3.6	
Tricuspid atresia	2	1.8	
Complete transposition of the great vessels	1	1	1
Idiopathic dilatation of the pulmonary artery	2	1.8	1
Pulmonary hypertension, mild	2	1.8	
Aortic stenosis (by exclusion and pressure pulse contour)	8	7.2	3
Mitral stenosis	1	1	
Total anomalous pulmonary venous connection	1	1	("Rare")
Dextrocardia with associated anomalies	2	1.8	
Normal right heart catheterization findings	13	12.8	
Inconclusive result	5	4.5	
Total	110		

*Wood, Paul: Diseases of the Heart and Circulation, Lippincott, 1952.

**These lesions are considered together because distinction could not be made prior to the use of Dye-dilution curves and because they are often a combined lesion.

TABLE II. CLASSIFICATION OF RESULTS

	Number of Cases	Approximate Per Cent of Total
1. *Clinical diagnosis substantiated by catheterization	48	48
2. *Clinical diagnosis not substantiated (including normal findings)	50	50
3. *Clinical diagnosis of surgically correctible** lesion before catheterization	92	92
a. Referred for surgery after catheterization	31	31
b. Surgery found not immediately indicated, possible or necessary after catheterization	44	44
c. Clinical diagnosis found to be incorrect (including normal findings)	36	36
4. Number of surgically correctible** lesions found when clinical diagnosis a non-surgical lesion	5	5
5. Number in which catheterization substantiated clinical diagnosis of non-surgical lesion	5	5
6. Number in which catheterization made possible decision regarding surgical treatment (3b or 3c plus 4 plus 5)	73	73

(Inadequate or inconclusive right heart catheterizations have been omitted from the above classifications.)

*The "clinical diagnosis" here represents the most likely diagnosis on clinical or EKG evidence, or a group of likely clinical diagnoses.

**Surgical correctibility here is based on currently available surgical techniques, not necessarily those obtaining at the time of catheterization.

heart catheterization in the management of these cases.

The above remarks are made with the realization that increasing safety in the use of the by-pass oxygenator pump has for many surgeons increased the indication for surgical correction of congenital lesions and a determination of critical levels of disturbed hemodynamics such as can be discovered only through the procedure of catheterization may not always be necessary. In other words, a reasonably secure clinical diagnosis of ventricular septal defect uncomplicated for example may be indication enough for surgery in some clinics, just as is the case with patent ductus arteriosus uncomplicated. It has been our feeling, however, born from our experiences, that where the slightest doubt exists as to diagnosis or the presence of complicated dynamics, right heart catheterization is a safe procedure with a high degree of reliability and extremely useful. Of all patients coming to surgery or autopsy the catheter diagnosis was substantiated completely in twenty-nine and in error in two, making a percentage of accuracy of 93 per cent in this group. The number of unsatisfactory studies was five or 4.5 per cent.

In summary, the purpose of presenting this experience in the application of right heart catheterization in a smaller community is to show that this technique can be established and developed with the assurance of its providing good diagnostic reliability and considerable benefit in the local handling of cases of congenital heart disease, even though definitive treatment methods must largely be performed as yet at the more distant "centers." It is hoped that this presentation will be an encouragement to others in similar geographic circumstances and with a comparable medical situation.

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252 E. Lovell Street

Biological Symposium

Biological warfare specialists, drug company representatives and scientists from the National Institutes of Health were among an estimated 400 virologists and biologists who attended the 11th annual Summer Biological Symposium at the University of Michigan, July 11-13.

Sponsored by the University of Michigan Division of Biological Sciences, the symposium concentrated on fundamental aspects of the nature of cell-life and the way it reacts to viral infections.

Participants included Dr. Pierre Fredericq, of the University of Liege, Belgium; Dr. Alfred Gottschalk, of the National University, Canberra, Australia; and prominent scientists from U. S. universities.

Prof. W. W. Ackermann of the University of Michigan School of Public Health was conference chairman.

Speakers developed such topics as the genetic interactions between viruses and cells; colesines (a killer-factor that attacks microscopic life); and the chemical and physical structure of viruses.

The purpose of the symposium this year was to show how viruses may be used to learn the functions of the cell.

The Treatment of Acute Volkmann's Ischemia

J. L. Kihm, M.D.
J. Hammer, M.D.
R. E. Delong, M.D.
R. L. Johnston, D.V.M.

Kalamazoo, Michigan

VOLKMANN'S ischemic contracture is an end-result of prolonged insult to soft tissues, in that muscles and nerves are denied nourishment required for their survival. In such a state soft-tissue infarction occurs, with later replacement by scar. While it is true that some salvage can be obtained from a limb so crippled[1] by excision of the infarct, the limb so affected is far from normal in appearance and function. The soft tissue of the limb must be saved *before* infarction occurs in the state of acute ischemia.

Fig. 1. Intramural hematoma in canine femoral artery directly between jaws of forceps, produced by crushing.

Acute Volkmann's ischemia is not a common condition, but it threatens whenever a humerus is fractured in the supracondylar region. In this area the proximal bone fragment displaces anteriorly to lie close to the brachial artery, which is found in rather snug fascial layers. Trauma to the artery may occur at the time of the fracture or at reduction and may initiate the chain of events leading to Volkmann's ischemia.

From Borgess Hospital, Kalamazoo, Michigan, and the Department of Pathology, The Upjohn Company, Kalamazoo, Michigan.

Pathogenesis

A recent review of the problem of threatened Volkmann's ischemic contracture[2] shows how the various theories of its etiologies have evolved and differed. Volkmann's original work on the topic in 1881 blames bandaging technique; but Murphy in 1914, Brooks in 1922, and Jepsen in 1926 were of the opinion that venous occlusion caused the changes. Subfascial hematoma caused the ischemia according to Moulonguet and Seneque in 1928, and Jorge in 1925. In 1940, Griffiths blamed spasm of the nutrient artery, and most recently Seddon has incriminated acute arterial primary occlusion.

Animal investigation has shown us that the actual picture varies. In the traumatized dog artery, occlusion may be due to intramural hematoma, which in many instances seems to cause and maintain arterial spasm. Figure 1 shows a freshly traumatized canine femoral artery, with both hematoma and spasm present. It is interesting to note at this point that while the spasm did appear to be somewhat relieved by the application of topical 2 per cent procaine to the artery, the swelling of the hematoma was not so relieved. Further investigation of traumatized canine arteries showed, however, that there was an additional cause of occlusion of the arteries. Figure 2 shows the marked proliferation of endothelium that marks later occlusion of the artery. While not as rapid in progression as the hematoma, endothelial proliferation is surprising in its vigor, and is a factor in cases of delayed block to circulation after arterial injury.

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J. L. Kihm, M.D.

It is our impression at the present time that acute Volkmann's ischemia is a result of direct trauma to the arterial wall by the fracture fragments of the humerus. Intramural arterial hematoma forms at the

Fig. 2. Canine femoral artery, cross-section (20X), with endothelial hyperplasia response to trauma.

site of trauma, impeding circulation at this point. Collateral circulation is impeded by spasm and extrinsic pressure from fracture hemorrhage and edema under a tight fascial sheath. Muscles which are deprived of nourishment swell and further complicate the situation. It is precisely at this point that surgical intervention becomes mandatory to prevent soft tissue infarction and subsequent Volkmann's contracture.

Prevention of Acute Ischemia

For the sake of completeness, we mention various measures which have proved of value in routine management of the supracondylar fracture. Their value lies chiefly in promotion of venous and edema fluid drainage, and in keeping the patient available in case acute ischemia should occur. 1. Management of the supracondylar fracture by traction. 2. Immediate, anatomical reduction of the fracture. . . . gently. 3. Post-reduction hospitalization for close observation. 4. Avoidance of the acute flexion position of the elbow. 5. Avoidance of tight, encircling fixation. 6. Elevation of the extremity, and 7. Enzymatic aid in reduction of fracture hematoma and edema with systemic streptokinase-streptodornase or trypsin or chymotrypsin.

It is to be emphasized that none of these measures will be successful in the management of the acute ischemic phase prior to Volkmann's contracture.

The Clinical Syndrome of Acute Ischemia

The cardinal symptoms of acute ischemia are post reduction pain and restlessness. The child with a reduced supracondylar fracture of the humerous rarely needs more than aspirin for pain. In the presence of continued pain and unusual restlessness, and in the need for serial post-reduction narcotic injections, the presence of an impending or already present ischemic state in the extremity must be strongly suspected.

Signs of ischemia include pallor, cyanosis, or excessive swelling in the fingers. Capilliary fill in the nail-bed is not a good sign in our experience, since the

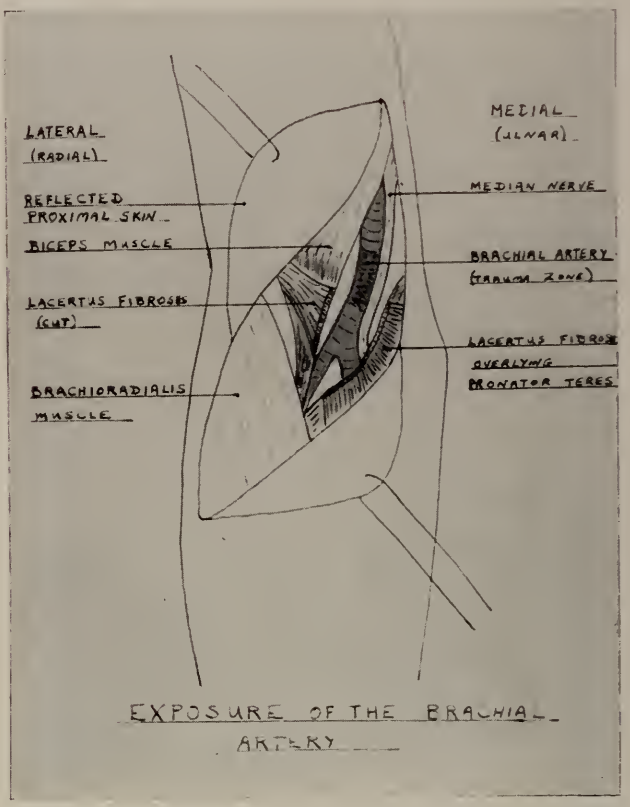

Fig. 3. Schematic sketch of surgical approach to brachial artery.

capillaries may fill well up to the time of muscle paralysis. Disappearance of radial pulse which has been present is an ominous sign, but when the fingers begin to lose motor and sensory function, acute ischemia is already present and spotty infarction has probably begun. At this point, surgical intervention must be sought if irreversible changes are to be avoided.

Management of Acute Ischemia

Under general anesthetic the antecubital fossa is opened with a "Z" shaped incision (Fig. 3). Lacertus fibrosus is opened over the course of the brachial artery, and clot and edema are evacuated from the vicinity to decompress the fascia. Radial pulse is constantly checked for return. The artery is exam-

ined gently and the point where pulsations cease is identified. This will be the site of mural injury in most cases, though retrograde spasm has been reported to have progressed proximal to it on occasion.

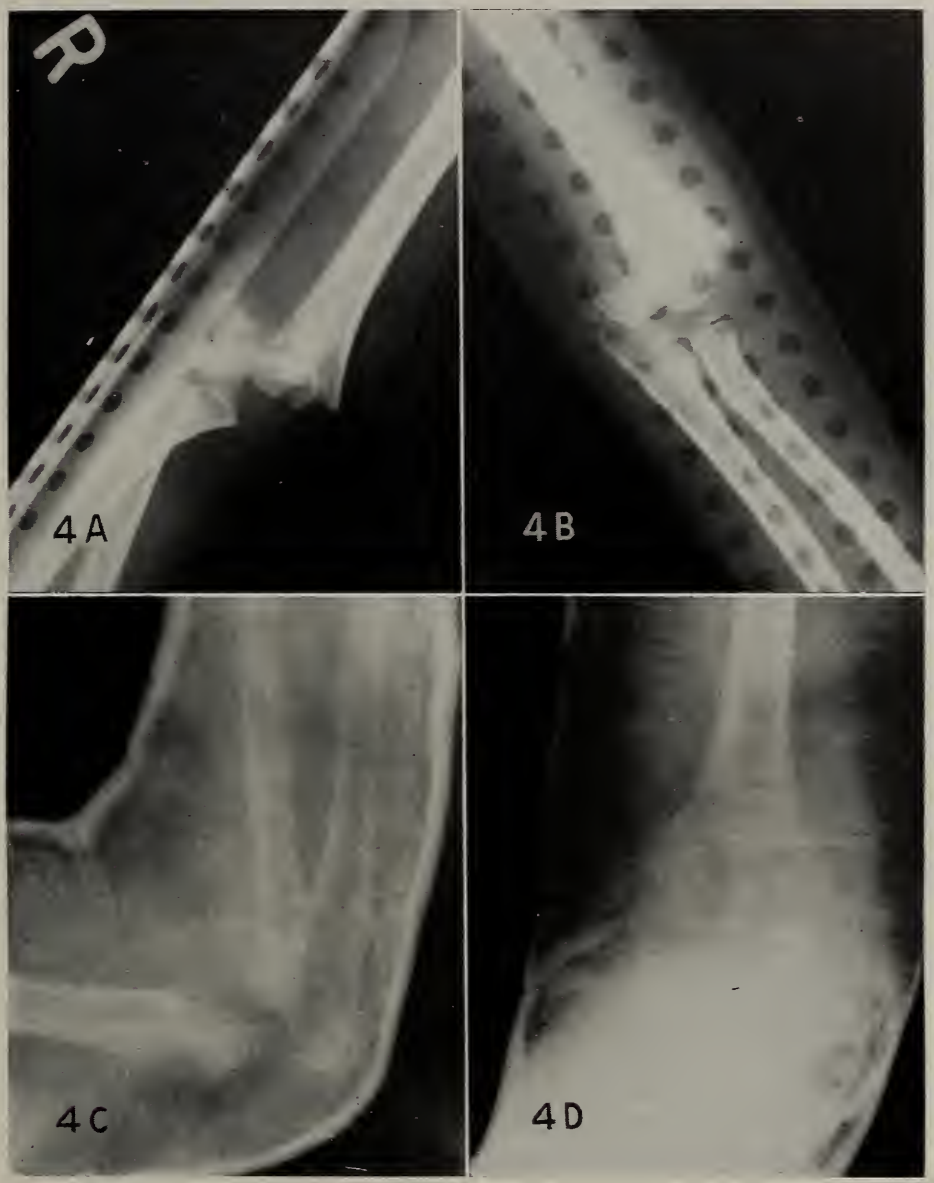

Fig. 4. (a) Lateral view right elbow, pre-reduction. (b) Anteroposterior view right elbow, pre-reduction. (c) Lateral view right elbow, post-reduction. (d) Anteroposterior view right elbow, post-reduction.

The artery at the level of the fracture will bear close scrutiny, however. With the fascia opened widely, warm packs and local anesthetic application may be applied to the artery, to try to return the radial pulsations at the wrist. In the absence of such return, a small arterotomy is performed longitudinally through the ecchymotic and swollen portion of the artery. If proximal blood flow is assured, the proximal artery is occluded momentarily with a vascular clamp. In the absence of retrograde flow, a small plastic catheter is introduced to the bifurcation of the artery and withdrawn with suction applied to the lumen. This will have the effect of removing small clots in the artery and of dilating its lumen. Retrograde flow should be re-established. A small piece of Gelfoam* is wrapped around the artery at the arterotomy site and gently held in place while the proximal arterial occlusion clamp is released. After a few moments the pulsation at the wrist should resume. Continuous gentle pressure on the Gelfoam wrap is maintained

*Gelfoam is a registered trade mark of The Upjohn Company.

for fifteen to twenty minutes, then released cautiously. If further bleeding from the arterotomy site occurs, manual pressure on the Gelfoam should be maintained until it stops.

Fig. 5. Case report; V. S. N., age six, eighteen months postoperative, showing ability to extend fingers, with slight residual weakness in extending right fifth finger.

The lateral limbs of the "Z" incision are then closed loosely and sterile dressings applied with a slight amount of pressure. A deflated tourniquet is placed above the operative site, to be inflated for temporary hemostasis should the Gelfoam clot be dislodged and post-operative hemorrhage occur. Needless to say, observation of the patient must be continuous until delayed closure of the incision can be carried out in six or seven days. The fractured arm is placed in nearly full extension in a posterior splint during the time of healing of the arterotomy wound, though the position and fixation may be determined by surgical judgment at the time of operation.

Prophylactic antibiotics are rational in the presence of an open wound, and vasodilators likewise seem desirable. Remanipulation of the fracture may be necessary postoperatively after the antecubital incision is closed, but one must bear in mind that moderately great degrees of displacement on the x-ray will heal kindly according to Wolff's Law if rotation and lateral angulation are controlled. Function of the extremity will improve over the course of a year or more, and should be assisted by dynamic splinting and physiotherapy where required.

Case Report

V. S. N., a six-year-old school girl, was admitted to the Borgess Hospital emergency room within an hour after having fallen onto her right arm. Her sole injury appeared to be a supracondylar fracture of the right humerus, but the radial pulse was absent on admission. Within an hour after admission, a gentle closed reduction of the humerus had obtained an anatomical position of the fracture fragments (Fig. 4). A radial pulse was obtained post-reduction with the elbow at a right angle, and the extremity in a long-arm cast. She was admitted to the hospital for observation, and required 20 mgm. Demerol* in three hours.

Twelve hours later the fingers were warm with good sensation and she could move them, though slight swelling was present. However, during the next twelve hours she required five more injections for pain in the extremity. Thirty-six hours post reduction more pain and restlessness were present, so the cast was split and spread. Finger warmth, motion, and sensation had remained present to this time, but soon she could no longer move the fingers and the radial pulse disappeared.

The hand was watched for improvement for a few hours and when none was forthcoming, the cast was removed and the elbow extended. The arm then went into a posterior split. The condition of the extremity deteriorated and by forty-eight hours post reduction there was pain on passive extension of the fingers with loss of hand sensation and active motion.

She was taken to surgery where the procedure outlined above was followed. The antecubital fossa was filled with clot and edema, which was evacuated. The brachial artery was pulseless and in spasm distal to a small ecchymotic area in its wall at the level of the fracture and 1½ inches proximal to the brachial artery bifurcation. Hot packs were placed in the wound and though the peripheral spasm appeared to decrease, the radial pulse did not reappear.

Accordingly, through the ecchymotic area where the pulse disappeared, a longitudinal arterotomy was performed, 2 mm. in length. Bleeding from the proximal artery was brisk, so it was gently occluded. There was no back bleeding. A No. 20 polyethylene catheter was introduced distally to the bifurcation and withdrawn with suction. Back bleeding occurred though no clot was ever seen in the suction tube. A piece of Gelfoam was wrapped about the arterotomy and held in place and the proximal clamp released. Gradually the radial pulse returned and the hand warmed. Finger pressure on the Gelfoam closure was maintained for about twenty minutes, releasing it intermittently to see if bleeding would occur beneath it. When such bleeding was negligible, the lateral and medial limbs of the skin incision were closed loosely, with a Vaseline pack centrally. Further post operative care followed as outlined above.

There was much improvement on the first postoperative day, with a radial pulse, decreased hand edema, and good color. No active finger motion or finger sensation were present, however, and the patient complained of paresthesias. A small amount of postoperative narcotic easily controlled pain, less than the pre-operative (post-reduction) being needed. On the second and third days there was spotty sensory return, and early motion. Improvement continued and on the sixth day the incision was cleaned and closed under general anesthesia. X-rays taken at this time showed re-displacement of the fracture, so on the ninth day the fracture was remanipulated, the position being altered only slightly. A long arm plaster was applied with the elbow in flexion and the patient discharged. Two weeks later saw the removal of the cast and the institution of active motion to the whole extremity. At the time of cast removal, however, she had finger flexion contracture, but good active mo-

*Demerol is a registered trade mark of the Winthrop Laboratories.

tion and sensation in the hand. Dynamic splinting with physiotherapy of whirlpool and active and passive motion of the fingers was carried out for six months. It was then discontinued because of the excellent progress. At the time of publication (eighteen months postoperative) she lacks only twenty degrees of full supination at the wrist and a few degrees of extension in the fifth proximal interphalangeal joint (Fig. 5).

Discussion

The key to success in cases of acute ischemia is to be able to get in and out of the artery involved without occluding it. Small arteries, particularly those which have been recently traumatized, are particularly prone to thrombosis when they are nearly occluded by the suture of a closure. It is necessary to have at hand a means to effectively close the small vessel of a child without occlusive suture, since a thrombosis postoperatively would defeat the purpose of the arterotomy.

Jenkins and co-workers[3,4] have shown that the great thoracic vessels and even the heart may be effectively closed by a fibrin foam clot when lacerated. Our animal work has substantiated this (Fig. 6) and has shown that firm healing occurs beneath the Gelfoam, without bulging of the scar or aneurysm formation. We therefore feel that this principle may be applied in other instances of arterotomy where it is desirable to preserve the blood flow through a rather small vessel.

Summary and Conclusions

1. The etiology, symptomatology, anatomy, and pathogenisis of acute Volkmann's ischemia are discussed, with a rationale for the management of the condition.

2. Animal procedures have been carried out, testing the efficacy of Gelfoam arterotomy closure.

3. Case presentation of the successful management of acute Volkmann's ischemia using Gelfoam arterotomy technique has been made.

4. The desirability of application of this technique to other small vessel laceration or arterotomy is suggested.

Fig. 6. Canine femoral artery, fourteen days after having arteriotomy closed with Gelfoam pledget, showing remnant of incision in media, mature scar over incision, and remaining Gelfoam fragments at far right.

Acknowledgment

We wish to express gratitude to Paul Rutherford, M.D., for his assistance with photography and to The Upjohn Company for assistance with the animal research.

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Gift To Beaumont Memorial Library

Irving F. Burton, M.D. and Coleman Mopper, M.D., have made a gift of a rare book to the Beaumont Memorial Library on Mackinac Island.

A military journal during the American Revolutionary War, From 1773 to 1783; Describing Interesting Events and Transactions of this Period; with numerous Historical Facts and Anecdotes, an appendix containing Biographical Sketches of several General Officers. By James Thacher, M.D. Late Surgeon in the American Army. Second Edition, Revised and Corrected. Boston: Published by Cottons and Barnard, 184 Washington Street. John Cotton, Printer 1827. 477 pages.

This volume has been placed in the Beaumont Memorial Library section on historical source material for the use of those interested in the military historical period of the Revolutionary War.

Staphylococcus Enterocolitis

Robert H. Hume, M.D.
Kalamazoo, Michigan

DURING recent years, physicians have become concerned with the problem of disease caused by the staphylococci. Diseases of the gastrointestinal tract are but one of the evidences of its presence. Here the organism shows a wide range of disease, from the effects of staphylococcal food poisoning, with a high rate of recovery, to pseudo-membranous enterocolitis, with a very low rate of recovery.

Recently more attention has been focused on the problem of pseudomembranous enterocolitis. It has been suggested that this problem is generally confined to those patients who have had a course of antibiotics,[1,2] or who have recently undergone some form of surgical operation, usually of an abdominal nature.[3] It was pointed out by Pettet at the Mayo Clinic in 1954 that they had observed and proven microscopically the diagnosis of pseudomembranous enterocolitis in forty-five hospital patients prior to the advent of antibiotics in 1938.[3] Other authors have reported cases developing in persons who have not had any form of surgical operation.[4] To Dr. Finney of the Johns Hopkins Hospital goes the honor of describing in American literature the first patient with this particular disease in 1893.[5] In his report, a twenty-two-year-old Negro girl died fifteen days following a gastroenterostomy. For five days prior to death, she had had severe persistent diarrhea. The diagnosis was proved at necropsy.

Information gained from autopsy as well as information gained in recent years by laboratory examination suggests that the organism staphylococcus and more specifically *Staphylococcus aureus,* is the etiologic agent of this problem. This group of organisms elaborates several toxins or enzymes. The ability of the staphylococcus aureus to produce disease is thought to involve one of the following: 1. The organism elaborates a substance that plays a direct role in its aggression and serves to neutralize the defenses of the host.[6] 2. Mutants of the organism are formed which are capable of living and developing in the face of either a normal intestinal flora or in one somewhat altered by antibiotics.[7] Having established itself and started to reproduce, the organism now elaborates an enterotoxin in increasing amounts. Surgella, in an interesting study, obtained micrococcus stool cultures from the patients with a diagnosis of enteritis and in turn isolated from the cultures an enterotoxin.[8] This material was then administered orally to monkeys who showed signs suggestive of toxicity on 90 per cent of the tests.

THE AUTHOR
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Just as there are a number of different strains of staphylococcus capable of producing an enterotoxin, so there must be some variation in the potency of the elaborated toxin and therefore the symptoms produced. An organism producing a toxin, as often observed in staphylococcus food poisoning, might be of relatively low virulence. It is destroyed after ingestion and further toxin is not elaborated. At the other extreme, an organism capable of living and producing a highly toxic substance while in the intestinal tract might well result in signs and symptoms of severe enterocolitis or pseudomembranous enterocolitis.[9] J. H. Johnson has summarized his experience with severe enterocolitis and pseudomembranous enterocolitis.[9] He observed that this disease was of three types.

1. *Choleric Type.*—This is probably most often recognized. The patient has symptoms of watery diarrhea, nausea, vomiting, abdominal cramps, abdominal distention and fever.

2. *Ileus Type.*—The patient demonstrates increasing abdominal distention that does not respond to gastric suction. Material gained by suction consists of copious amounts of greenish-brown fluid. There is associated nausea and vomiting. Frequently, there is respiratory embarrassment.

3. *Precipitous Shock Type.*—There is a rather sudden appearance of mild to moderate shock, tachy-

cardia, pallor, sweating, and dyspnea. They may have diarrhea, abdominal distention, nausea, and vomiting.

Kalamazoo Experience

Between 1956 and 1960 we have had twelve patients in the Bronson Methodist Hospital in Kalamazoo, Michigan, who have illustrated the comments mentioned above. Many patients entered the hospital with the clinical diagnosis of staphylococcal food poisoning. There was only one patient who was admitted after ingestion of proven contaminated food, in which subsequent stool and sputum cultures also showed *Staphylococcus aureus*. The diagnosis of staphylococcus enterocolitis was proven in five patients, and presumptive in one patient. Pseudomembranous enterocolitis was a clinical diagnosis in five patients, but was proven in four patients by necropsy. It has been repeatedly pointed out that the gaining of positive stool cultures is always difficult. The symptoms are the result of the toxin. As a result, cultures may be taken at times when the organism is not present in the stool, or cultures may be made with insufficient attention to isolation of staphylococci. The milder forms were associated with symptoms which improved with medical attention. The more virulent cases improved, but only after vigorous and prolonged treatment. The very severe cases, however, had all the evidence of fulminating disease, and in spite of vigorous attention, each one died.

Case Reports

Case 1.—B. S. This nineteen-year-old girl had turkey for supper which was later proven by the County Health Department to be infected with staphylococcus. Shortly thereafter, she had the onset of severe headache, profused diarrhea, and severe vomiting. Cultures of sputum and stool were positive for hemolytic coagulase positive *Staphylococcus aureus*. Over a period of thirty-six hours, on a supportive program, not including antibiotics, she improved and was discharged.

Case 2.—G. I., a six-month-old child, was treated in the hospital for pneumonia. During this period, she received tetracycline, chloromycetin, and penicillin.® Ten days following discharge, she developed diarrhea with copious watery stools. Stool cultures showed a non-hemolytic staphylococcus. On a program of chloromycetin and supportive therapy, improvement took place.

Case 3.—N. C., a twenty-four-year-old, allergic, woman, gave a five day history of four to six loose stools containing blood and pus. Stool cultures grew *Staphylococcus aureus*. On a supportative program not including antibiotics, she improved and was discharged.

Case 4.—J. M., a sixty-four-year-old woman, was admitted to the hospital with the diagnosis of coronary thrombosis. Four days after entry, she had the onset of griping abdominal pains, a temperature of 103° F., and four liquid brown stools per day. Stool cultures showed a non-hemolytic staphylococcus, coagulase negative. On a vigorous program, including antibiotics, penicillin, tetracycline, streptomycin, and albamycin®, she showed steady improvement over a period of one week.

Case 5.—R. G., a sixty-five-year-old-woman, was given a course of twelve tetracycline capsules® in October, 1957. Twelve days following this, she noted severe general abdominal discomfort. This was in turn followed by a temperature of 103.6° F., pulse of 110, vomiting, nausea, and eventually two to seven brown liquid stools per day. A stool culture grew staphylococcus albus. She was placed on a program of erythromycin, chloromycetin, and tetracycline®. She showed definite improvement. Because of persistent right lower quadrant discomfort, she was operated upon. Five hundred cc. of fluid were removed from the abdomen, but no abscess was observed. A decompression cecostomy was performed. She subsequently slowly improved.

Case 6.—J. V., a seventy-three-year-old man was admitted for treatment of a stasic ulcer. Following a period of preparation for surgery, including the use of penicillin and tetracycline, the ulcer was skin grafted. Two days following operation, vomiting and abdominal distention were observed. His temperature rose to 101° F. and he had diarrhea of two to four stools each day. Throat and stool cultures showed *Staphylococcus aureus*, coagulase positive, phage type 47, 53, 54, and 73. He was placed on a vigorous antibiotic program of erythromycin, mycostatin, and neomycin with steady improvement and recovery.

Case 7.—E. C., a forty-one-year-old woman, had a subtotal gastric resection performed in April, 1956. Following operation she developed severe abdominal distention and pain associated with a temperature of 104.8° F., pulse of 160, and respirations of 24. Subsequently, she had several loose watery stools. It was felt that she had developed a gastrocolic fistula, and she was therefore returned to the operation room two days following her original operation. Post-operatively, she went into a severe shock state. She was maintained on vasopressure agents, steroids, fluids, and chloromycetin, penicillin, and streptomycin®. During this period she had four to six foul green liquid stools per day which grew Gram-positive streptococcus when cultures were made. Her physical state slowly stabilized and subsequently, she made steady improvement.

Case 8.—A fifty-two-year-old woman, had a left thalamotomy performed in August, 1959. She was given no antibiotics. On her eighth postoperative day, she told of severe abdominal discomfort and distention. Her temperature rose to 103° F., with a pulse of 100 and respirations of 28 per minute. It was felt that clinically she had experienced some form of acute abdominal catastrophe. She was operated upon. Examination of a smear made from the intestine at the time of operation showed Gram-positive cocci. The serosal surfaces appeared to be dull and had great vascular congestion. A segment of yellow-gray necrotic appearing ileum was resected. Subsequently, she went into vascular collapse with a temperature rise to 105° F., and she expired. Histologic examination of the intestine showed a dense fibrino-purulent exudate, necrosis of mucosa, and most important of all, colonies of microorganisms which represented staphylococcus.

Case 9.—E. B., a seventy-two-year-old man, had a vesicle neck resection performed in November, 1956, from which

he convalesced satisfactorily. Two months following discharge, while at home, he had the onset of temperature to 102° F., abdominal discomfort and diarrhea. After admission to the hospital in January, 1957, he was started on tetracycline and erythromycin®. In spite of this he rapidly became worse and died. An examination of a swab taken from the lumen of his colostomy prior to death, showed Gram-positive cocci. A blood culture was negative. No autopsy was obtained, but clinical diagnosis was pseudomembranous enterocolitis.

Case 10.—A. J. Z., a sixty-six-year-old man, had a subtotal gastric resection for duodenal ulcer in April, 1956. On his second postoperative day, his abdomen became firm, tender, and his temperature rose to 104° F. This was in turn followed by the passage of a number of watery brown stools. He was given penicillin, streptomycin, teramycin, and tetracycline®. He died on his third postoperative day. Cultures taken at the time of autopsy showed multiple pure cultures of *Staphylococcus aureus*. The mucosa of the ileum and jejunum was necrotic. The serosa was gray with marked congestion of the vessels. Microscopic examination showed complete necrosis of the mucosa with many colonies of bacteria.

Case 11.—L. D., a seventy-eight-year-old woman, was admitted to the hospital with a diagnosis of acute cholecystitis. On a conservative program which included the use of chloromycetin® she slowly improved. Subsequently, a cholecystectomy and exploration of the common duct was performed. On her fourth postoperative day, she developed a temperature of 102.6° F., a pulse of 110, and respirations of 38 per minute. Marked abdominal distention with generalized abdominal tenderness and signs of diminished blood volumn were observed. She was vigorously treated with blood, fluids, steroids, and chloromycetin®. In spite of this, she rapidly declined and died. At autopsy, the small intestine was filled with fluid, the serosa was dull with marked venous congestion. Microscopic examination showed multiple areas covered by a diptheritic membrane in which colonies of staphylococci could be identified.

Case 12.—J. K., a one-week-old girl, was born with a rectoperineal fistula. It was discharged on the fourth day of life, passing stool adequately from its fistula and tolerating an adequate formula. Two days following discharge, she passed no stool and took one half ounce of formula orally. After re-admission to the hospital, a catheter was inserted into the rectum and 40 cc. of foul smelling liquid stool removed. Eight hours after admission the child died. At autopsy, areas of fibrin were noted on the intestinal surface. The entire mucosa of the large intestine was represented by a grayish brown membrane which could be easily stripped from the underlying tissue. Microscopic examination confirmed the presence of a fibrino purulent exudate overlying the submucosa. Colonies of bacteria could be also seen.

Discussion

Staphylococcus enterocolitis is a disease which may appear in any one either in or out of the hospital and in those who have had or those who have not had an operation. Six of our twelve patients developed their symptoms at home prior to hospital admission. Six developed their symptoms while in the hospital. Five patients had undergone a recent surgical operation of which three were abdominal in nature. Four had had a recent course of antibiotics, while eight patients had not received any antibiotic medication prior to the onset of their symptoms.

At the time the organism is introduced into the intestinal tract, there must be some changed resistance on the part of the host increasing susceptability to the organism and its toxin. Under this condition, the organism is able to grow easily, pushing out the normal flora and elaborating its own virulent enterotoxin in ever-increasing amounts.

The severity of the symptoms presented appears related to the severity of the infection, and therefore the virulence of the enterotoxin produced. Under suitable circumstances, the organism has been cultured and the enterotoxin obtained and tested in laboratory animals as done in the studies of Surgella.[8] Even more important information has been added by Prohaska.[10] Prohaska obtained *Staphylococcus aureus* cultures from patients who had a clinical diagnosis of pseudomembranous enterocolitis, or from food definitely implicated in human poisoning. He in turn administered orally to antibiotic treated rabbits the cultures. The enterotoxin produced by the cultures were also given to other rabbits. Many of the rabbits subsequently developed symptoms suggestive of pseudomembranous enterocolitis. Autopsy examination confirmed the diagnosis in both rabbits given the cultures and in the rabbits given the enterotoxin. He concluded that the changes observed in the bowel and fatal termination of the disease is due to the enterotoxin produced.

Treatment in these patients must be prompt and vigorous. Careful attention must be given to adequate fluid replacement since these patients may lose many liters of electrolyte a day. Antibiotics must be given on the basis of sensitivity studies. Erythromycin and albamycin® appear at this time to be most helpful. Steroids in large dosages are said to be helpful.[11-12] Vasopressor drugs may be needed.

Efforts can be made to innoculate the intestine with a more normal flora. Lactobacillus has been given by mouth. Possibly, one might consider inoculating the colon by use of enemas of stool from healthy individuals, or of stool cultures known to contain normal flora. In mild cases, vigorous treatment is associated with recovery. In the fulminating cases, the outlook is poor in spite of vigorous treatment.

Summary

1. Toxin producing staphylococci, when they gain entrance to the gastronintestinal tract, are capable of producing serious disease.

2. The disease presentation depends on the virulence of the enterotoxin produced.

3. Staphylococcal poisoning, staphylococcal enterocolitis, and pseudo-membranous enterocolitis are probably related diseases.

4. Treatment, if prompt and vigorous, will usually result in recovery in the less fulminating cases. In full bloom clinical pseudo-membranous enterocolitis the outlook is poor with our present means of treatment.

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Accurate Labeling of Drugs

Stronger regulations to insure that physicians receive adequate information about the drugs they prescribe and to insure the safety of new drugs have been proposed by the Food and Drug Administration.

The new regulations would:

1. Require sweeping changes in the labeling of prescription drugs. Virtually all prescription drug packages and printed matter distributed to physicians to promote sale of a drug would be required to bear complete information for professional use of the drug, including information about any hazards, side effects or necessary precautions.

2. Provide that when safety requires, a new drug would be kept off the market until the manufacturer's representations regarding the reliability of manufacturing methods, facilities and controls have been confirmed by a factory inspection by the Food and Drug Administration.

Other proposed labeling changes would require drugs for injection and for use in the eyes to bear a quantitative declaration of all inactive ingredients. Labels of all prescription drugs would be required to include an "identifying lot or control number from which it is possible to determine the complete manufacturing history."

The Diagnosis and Treatment of Subphrenic Abscess

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A. J. Neerken, M.D.
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In spite of the effectiveness of antibiotic drugs in many infectious processes, subphrenic abscess continues to be an important complication of abdominal surgery. Due to the relatively inaccessible location and the protection afforded by the thoracic cage, infection below the diaphragm has been difficult to diagnose and to treat.[1] These lesions follow a suppurative process within the abdominal cavity and the treatment of the condition is primarily surgical. Ochsner points out that infections of the subphrenic space occur much more frequently than is commonly supposed, but fortunately many times may subside spontaneously with the diagnosis never having been suspected.[2] However, the seriousness of a collection of pus beneath the diaphragm is emphasized by the study of Faxon who reported a fatal outcome in approximately 90 per cent of cases not surgically drained.[3]

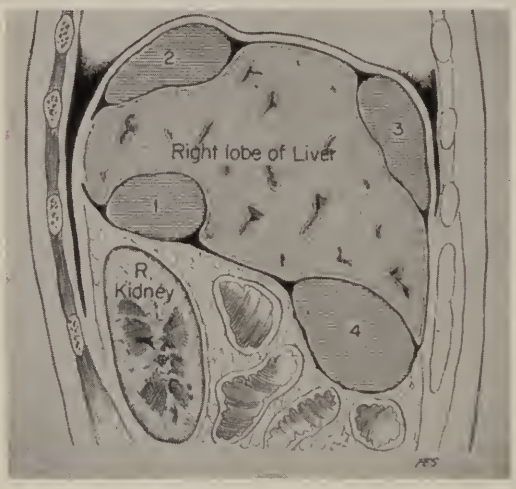

Fig. 1. (1) Right posterior subhepatic abscess. This site may be readily drained extrapleurally and extraperitoneally below or through the bed of the resected twelfth rib (Ochsner). (2) Right posterior subphrenic abscess. (3) Right anterior subphrenic abscess. The approach to this part of the subdiaphragmatic space is a subcostal incision on the right going extraperitoneally and extrapleurally (Ochsner). (4) Typical right anterior subhepatic abscess easily reached through the existing right rectus or subcostal incision. (Boyd, David: Surg. Clinics of North America, June, 1958, W. B. Saunders Company.)

History

Barlow in 1845 first described the condition of subphrenic abscess.[4] Some forty years later, Leyden again described the clinical picture.[5] In 1875, Volkmann recorded an operation for subphrenic abscess and in 1907 Barnard published the classical anatomical description of the subphrenic space which has been widely accepted and reproduced in many standard textbooks.[6]

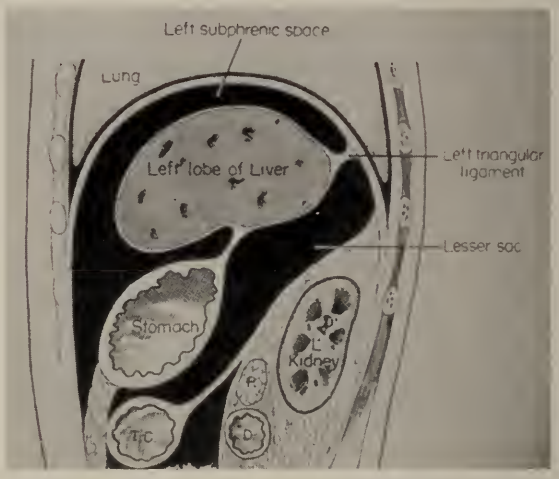

Fig. 2. Sagittal section through left lobe of liver near falciform ligament. As one passes farther to the left the separation into subphrenic and subhepatic areas is less distinct. Removal of a section of the eleventh or twelfth rib will give direct access to the lesser sac. The relationship of the lesser sac to the diaphragm is emphasized. (Boyd, David: Surg. Clinics of North America, June, 1958, W. B. Saunders Company.)

Anatomy

In a report which simplifies the complex and confusing anatomical and pathological descriptions of the

From the Department of Surgery, Bronson Methodist Hospital, Kalamazoo, Michigan.

TABLE I. SUMMARY OF CASES IN PRESENT REPORT

No.	Age	Sex	Original Lesion	X-Ray Findings	Drainage Technique	Location of Abscess	Result
1	42	F	Perforated duod. ulcer	Elevated diaph. Air bubble	Rt. subcostal extraperitoneal	Right subhepatic	Recovered
2	55	F	Perforated peptic ulcer	Elevated diaph. Limitation diaph. Air-fluid level	Transthoracic (Trardelenberg)	Right subphrenic	Recovered
3	37	M	Perforated marginal ulcer 2 yr. post gastrectomy	Elevated diaph. Air bubble	Left subcostal extraperitoneal	Left subphrenic	Recovered
4	59	M	Duodenal stump leak, post gastrectomy	Contrast media instilled into sinus tract and subphrenic abscess	Rt. subcostal extraperitoneal	Right subhepatic	Recovered
5	57	M	Duodenal stump leak, post gastrectomy	Elevated diaph.	Rt. subcostal extraperitoneal	Right subphrenic	Recovered
6	51	M	Duodenal stump leak, post gastrectomy	Not diagnostic	Subcostal exploration	Right subhepatic Left subphrenic (massive abscess)	Died
7	47	M	Ruptured appendix	Elevated diaph. Pleural fluid	No surgery performed. Antibiotic therapy	Left subphrenic	Recovered
8	18	M	Ruptured appendix	Air bubble. Pleural fluid	Retroperitoneal through bed of 12th rib	Right posterior subhepatic	Recovered
9	9 mo.	M	Ruptured appendix	None taken	Transperitoneal	Right subphrenic	Recovered
10	62	M	Ruptured appendix	Elevated diaph. Gas bubble Pleural reaction	Transperitoneal	Right subphrenic	Recovered
11	43	F	Splenectomy	Pleural exudate left base	Left subcostal extraperitoneal	Left subphrenic	Recovered
12	65	F	Splenectomy	Fluid-air level. Limitation motion of diaph. Pneumonitis and pleuritis l. base	Left subcostal extraperitoneal	Left subphrenic	Recovered
13	51	M	Splenectomy	Restricted movement left diaph.	Left subcostal extraperitoneal	Left subphrenic	Died
14	27	M	Splenectomy	Limitation diaph. Elevated diaph.	Retroperitoneal through bed of 12th rib	Left subphrenic	Recovered
15	64	M	Small bowel resection	Large air-fluid level on right	Right subcostal extraperitoneal	Right subphrenic	Recovered
16	72	M	Colon resection	Elevated diaph. Air-bubble Barium enema leak	Left subcostal extraperitoneal	Left subphrenic	Recovered
17	49	M	Common duct exploration	Extravasation of dye from T tube cholangiogram	Rt. subcostal extraperitoneal	Right posterior subhepatic	Recovered
18	71	M	Ruptured gall bladder	Distended gall bladder	Rt. subcostal extraperitoneal	Right anterior subhepatic	Recovered
19	78	M	Perinephric abscess	Elevated diaph. Air-fluid level Limitation diaph. Pleural reaction	Retroperitoneal through bed of 12th rib	Right posterior subhepatic	Recovered

subphrenic space, Boyd has described four anatomic spaces and acknowledges six subphrenic abscesses.[7] This classification will be adhered to in the description of the cases reported in this series.

On the right Boyd recognizes one subphrenic suprahepatic space and one subhepatic space. On the left side he describes one combined subphrenic and subhepatic space and one further subhepatic space in the lesser sac. These spaces may be divided by pyogenic membranes into anterior and posterior subphrenic, and anterior and posterior subhepatic abscess on the right (Fig. 1). The abscesses on the left are limited to two descriptive locations: those which are subphrenic and involve the superior and/or inferior surfaces of the left lobe of the liver, and those within the lesser sac (Fig. 2). This simplified classification is of great help to the surgeon in locating and surgically approaching the subphrenic abscess he may encounter.

Cases in Present Series

During the past five years, a total of nineteen cases of subphrenic abscesses have been treated on the surgical service of this hospital (Table I). The age range was nine months to seventy-eight years with an average age of 49.9 years. Fifteen males and four females are included in the series. The original lesions causing the suppurative processes were all within the abdomen and are of considerable variety. Four cases followed splenectomy, four were related to rupture of the appendix, three were subsequent to perforation of peptic ulcer, and three were attributed to leakage from the duodenal stump following gastrectomy. One case followed a small bowel resection for closed loop obstruction and one case followed a left colon resection and demonstrated, by barium enema, a leak at the site of anastomosis. One case was attributed to rupture of the gall bladder and one case followed a common duct exploration. One case resulted from extension of a perinephric abscess on the right.

Diagnosis

Diagnosis was made within a period varying from one day to five weeks from the onset of the original lesion. All cases demonstrated fever and leukocytosis. An important diagnostic criterion was persistent localized tenderness over the involved area and particularly localized tenderness over the twelfth rib in cases with right posterior subhepatic abscesses.

Roentgenological examinations were employed as a diagnostic aid in all but one of the nineteen cases cited. Of the eighteen patients examined by this means, sixteen had diagnostically significant findings to suggest or confirm a subphrenic abscess. Six cases

demonstrated elevation and immobility of the diaphragm (Fig. 3). Although the presence of an elevated diaphragm should arouse strong suspicion of subphrenic abscess, it is far from pathognomonic. Phrenic nerve damage, pleurisy, and such pulmonary abnormalities as pneumonitis, infarction, or atelectasis may be responsible.

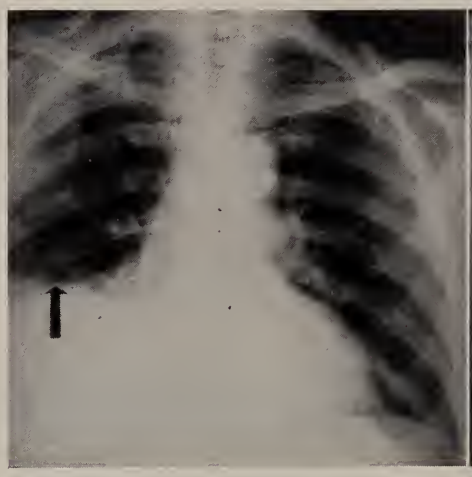

Fig. 3. Elevation of the right leaf of the diaphragm with pleural reaction. Case 10.

Fig. 4. Air bubble in a left subphrenic abscess with elevation of the diaphragm. Case 3.

Fig. 5. Fluid-air level beneath left leaf of diaphragm. Barium swallow demonstrates stomach in relation to the subphrenic bubble. Case No. 12.

Fig. 6. Barium swallow demonstrates gastric fistula draining into left subphrenic abscess.

An air-fluid level beneath the diaphragm and outside the gastro-intestinal tract must be considered diagnostic of subphrenic abscess. Unfortunately, this reliable sign is found in less than half of the cases and its absence in no way excludes the diagnosis of the disease. A fluid level is more likely to be demonstrated on the left where the dense liver shadow does not obscure visualization (Fig. 4).[8] In the present series, gas was present in the abscess in nine of the nineteen cases (47.3 per cent). Other authors have reported this finding in from 15 to 30 per cent of their cases.[9-12]

Contrast media has been useful in the diagnosis of subphrenic abscess (Fig. 5). We have found it particularly helpful in four cases in this series. A barium swallow demonstrated a gastric fistula draining into a left subphrenic abscess that developed following splenectomy (Fig. 6). Another case revealed a barium leak from the site of a colon anastomosis which

drained into a left subphrenic abscess. A T-tube cholangiogram demonstrated a fistula leading to a right subhepatic abscess (Fig. 7) and a fourth case showed a subhepatic abscess when iodized oil was injected into a sinus tract following leakage from a duodenal stump.

Treatment

The necessity for surgical drainage in cases of subphrenic abscess has been emphasized by the statistics published by Faxon[3] and by Ochsner and Graves.[13] In draining the abscess, it is of utmost importance to

Fig. 7. T-tube cholangiogram demonstrates extravasation of dye from common duct into right subhepatic abscess. Case No. 16.

avoid contamination of uninvolved areas. The operative approach used in draining the subphrenic abscesses in this series has depended largely on the location of the abscess and this in turn has, in most cases, been related to the primary lesion causing the suppuration (Fig. 8). The accompanying chart lists the operative procedure employed in each case.

In applying the anterior extraserous approach an oblique incision is made 1 inch below and parallel with the costal margin, or through a previous subcostal incision. The incision is deepened through the skin, subcutaneous tissue, the three layers of flat anteriolateral abdominal muscles and the fascia transversalis lateral to the sheath of the rectus abdominis muscle. The sheath should not be opened in order to prevent its contamination with infected material. This incision exposes the extraperitoneal areolar tissue and the peritoneum.

To explore the subphrenic, suprahepatic space on either side, the finger is passed upward under the diaphragm and peels the peritoneum off of its undersurface (Fig. 8). This can be accomplished without difficulty, especially when inflammatory edema is present. When the abscess is reached in the subphrenic space, its wall is incised or opened bluntly by finger

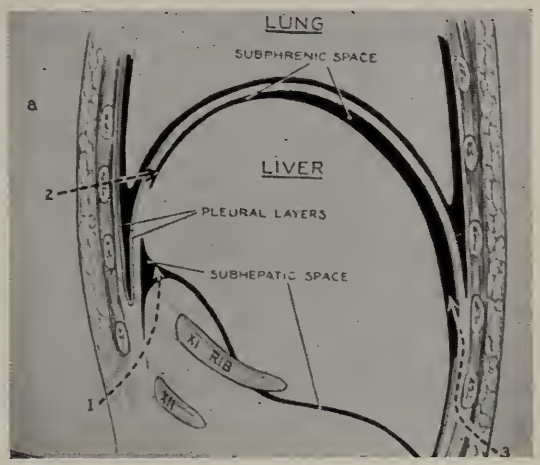

Fig. 8. The very large areas occupied by the subhepatic and subphrenic spaces on the right side are shown. The various approaches to these spaces are indicated: (1) Twelfth rib extraserous route (Ochsner), (2) Trendelenburg trans-pleural route, (3) Anterior extraserous approach. (Boyd, David: Surg. Clinics of North America, June, 1958, W. B. Saunders Company.)

pressure. The left anterior subhepatic space can easily be reached by pushing the finger backward and upward below the left lobe of the liver and above the stomach and lesser omentum. The right subhepatic space similarly can be reached by passing the finger upward and backward below the right lobe of the liver and above the hepatic flexure and right extremity of the transverse colon.

The posterior extraserous approach through the bed of the twelfth rib is accomplished by placing the skin incision over the course of the twelfth rib, starting about 1 inch from the midline and extending downward and forward to a point just beyond its tip. The incision should be long enough to accommodate the hand. The twelfth rib is exposed by dividing the skin and subcutaneous tissue, and the latissimus dorsi and serratus posterior inferior muscles. The periosteum over the whole length of the twelfth rib is divided and the periosteum separated from the upper and lower borders and deep surface of the rib. Care must be taken not to injure the pleura while doing this. The whole length of the rib is then excised subperiosteally.

The bed of the twelfth rib is then incised trans-

versely at the level of the spinous process of the first lumbar vertebra. At this point, an eighteen gauge needle may be inserted into the subphrenic space and aspiration carried out to identify the location of the abscess. Entrance into the abscess pocket may then be accomplished by incising over the course of the needle. The abscess is drained by a large rubber tube.

Mortality

There were two deaths in this series of nineteen patients (10.5 per cent). One of these occurred in a patient who had disruption of the duodenal stump following gastric resection. A huge abscess developed which filled both the right subhepatic and the left subphrenic space. He died in spite of drainage through an anterior subcostal incision. The other death was that of a patient who had suffered a ruptured spleen in an automobile accident. He was discharged from the hospital following recovery from splenectomy, but four weeks after operation was found to have a subphrenic abscess. The abscess was drained through a left subcostal incision and a Pezzar catheter was placed in the cavity. Gastric contents were noted to drain from the catheter and a subsequent barium swallow demonstrated a gastric fistula (Fig. 6). Feeding jejunostomy was performed, and at the time of this procedure extension of the abscess with multiple loculations was demonstrated. The patient eventually died and the autopsy revealed in addition to the gastric fistula, perforation of the left leaf of the diaphragm with a resulting empyema.

Conclusions

These cases emphasize that subphrenic abscess is a far from uncommon complication of intra-abdominal disease and surgery. Its diagnosis is aided by a strong index of suspicion when the postoperative patient is found to run an otherwise unexplained septic course. Localized subcostal tenderness anteriorly, and particularly twelfth rib tenderness posteriorly, are the most helpful physical findings. X-ray examination is invaluable in diagnosis and should include fluoroscopy for diaphragmatic motion as well as upright and decubitus films. Often the use of barium studies of the gastrointestinal tract and contrast media visualization of sinus tracts will be rewarding. Prompt surgical drainage when the diagnosis is made, rather than hopeful reliance on chemotherapy, is essential.

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Retinal Detachment

J. Reimer Wolter, M.D., Assistant Professor of Ophthalmology, University of Michigan Medical Center, reports about 70 per cent of success in corrective surgery for retinal detachment, separation of the retinal membrane from its adjoining tissues. It results from a break in the retinal membrane which causes fluids of the inner eye to escape between the adjacent membranes. The image surface is then distorted. The retina degenerates from lack of nourishment, and blindness results. The break must be sealed and fluids drained from between the membranes.

Doctor Wolter describes this operation as a delicate form of spot welding. Using electricity and diathermy needles, the break in the retina is sealed with scar tissue. The operation must be performed soon after the defect is detected, however, in order to restore vision.

Retinal detachment usually occurs in old age, or in patients with extreme near-sightedness. Sometimes it results from a blow to the eye.

Acute Erythrophagocytic Hemolytic Anemia

Treated by Replacement Transfusion

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THE SYMPTOMS of acute fulminating hemolytic anemia may be so severe that replacement of the patient's blood with normal blood is indicated as a lifesaving measure. Ordinary transfusions may fail to halt the acute hemolytic process and may not appreciably increase the oxygen-carrying capacity of the blood. Ordinary transfusions can be given only in limited number without the risk of circulatory overload. Replacement transfusion clears the circulation of excess free hemoglobin and might be expected to alleviate the danger of acute renal failure.[1]

Case Report

A well-nourished, three and one-half-year-old white boy (blood group B, Rh-positive) entered the hospital in an acutely ill state. He was pale, severely jaundiced, and semicomatose. His rectal temperature was 104 F., pulse 160, respirations 50 per minute. This illness had begun two days previously, with chills, fever and some vomiting. On the day before admission follicular tonsillitis was diagnosed and ilotycin (Eli Lilly & Co.) was started by mouth at 9:00 A.M. His mother noted a red-brown urine on this day and attributed it to the medicine. The patient complained of aching in his head, arms, legs and stomach. On the morning of hospital admission he had a large, chocolate-colored stool.

There was no family history of anemia or jaundice. The patient was the first of two children; his eighteen-month-old brother was healthy. The patient's past health was good; as a baby he had had slight eczema which seemed to be aggravated by ingestion of pork or veal; after the age of one year his skin had remained clear. He had received the usual immunizations against infectious diseases. Four months before his present illness he had received a short course of aureomycin for the treatment of tonsillitis.

On admission he had cloudiness of the sensorium. Examination revealed enlarged tonsils without definite follicles or bleeding points, lungs clear and some tenderness over the liver but neither liver nor spleen was enlarged. A medical consultant at this time reported that in a space of two or three days the child's condition had deteriorated from apparent good health to a highly critical state.

Laboratory findings on admission were as follows: erythrocytes 1,420,000; hemoglobin 3.5 gm. per 100 ml.; platelets normal in number; leukocytes 28,050 with 2 per cent metamyelocytes, 11 per cent band neutrophils, 66 per cent segmented neutrophils and 21 per cent lymphocytes; there were 2 nucleated red cells per 100 leukocytes; many band and segmented neutrophils contained phagocytized erythrocytes in all stages of destruction—some phagocytized erythrocytes were intact within leukocytes while others were represented by large, rounded, clear vacuoles within leukocytes (Figs. 1 and 2). Many erythrocytes appeared spherocytic. The red cell fragility was increased, with hemolysis beginning at 0.50 per cent Na C1 and complete at 0.36 per cent NaC1. In a simultaneous normal control, hemolysis began at 0.44 per cent NaC1 and was complete at 0.30 per cent NaC1. The direct Coombs test was negative. Bone marrow aspirated from the tibia revealed granulocytic and erythrocytic hyperplasia; the erythrophagocytosis found in the marrow smears was similar to that in the peripheral blood except that some monocytes (as well as granulocytes) contained ingested erythrocytes. Culture of the bone marrow was negative for bacteria. The total serum bilirubin was 6.7 mg., of which only 0.7 mg. was direct-reacting. The red-brown urine contained hemoglobin and occasional erythrocytes, also a trace of albumin and many granular and hyaline casts.

The patient received 500 ml. of group B, Rh-positive blood on the morning of admission. He was also given 50 mg. of cortisone and 10 mg. of ACTH on this day and several times daily during most of his hospital stay. A second blood transfusion of 300 ml. was given the afternoon of the first hospital day. On the second day the patient's condition was markedly deteriorated. He was whimpering and failed to respond to verbal stimuli. Respiration was shallow and the pulse weak and thready. Hemoglobin was 4.5 gm. per 100 ml.; erythrocytes 1,860,000; leukocytes 28,150; erythrophagocytosis was again evident in the peripheral blood smear. A blood transfusion, begun at 11:30 A.M., was continued by very slow drip until a cut-down venesection was made at 3:00 P.M. During a five-hour period from 3 to 8 P.M., 900 ml. of blood was removed

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from an ankle vein while 900 ml. of donor blood was given into a vein of the opposite ankle. During most of this time the blood pressure and pulse improved, but the procedure was discontinued at 8 P.M. because the pulse rate had risen from 160 to 200 per minute and the beat had become almost imperceptible. During the replacement transfusion, 10 ml. of 10 per cent calcium gluconate was given intravenously and an additional 5 ml. was given at the termination of the procedure.

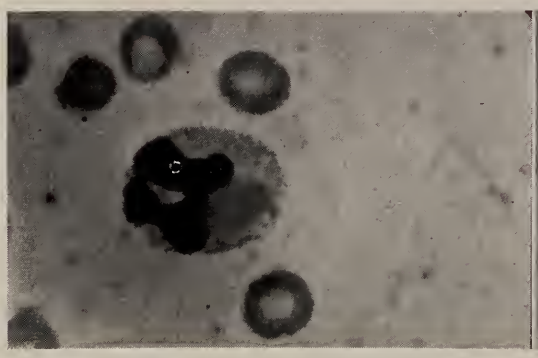

Fig. 1. Intact phagocytized erythrocyte within segmented neutrophil.

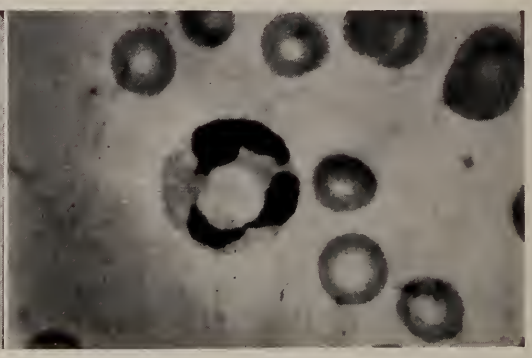

Fig. 2. Vacuolar, degenerated erythrocyte within segmented neutrophil.

The patient was definitely improved on the morning of the third day. Hemoglobin was 12 gm. per 100 ml.; erythrocytes 4,100,000; leukocytes 36,000 without evidence of erythrophagocytosis. Erythrophagocytosis was not found in any subsequent blood smears. The patient continued to improve and on the fourth day his total serum bilirubin had dropped to 4.6 mg. On the tenth day hemoglobin was 11 gm. per 100 ml.; erythrocytes 3,720,000; leukocytes 15,400. The patient was discharged on the twelfth hospital day. He returned to the laboratory 5 days later, at which time his hemoglobin concentration was 12.5 gm. per 100 ml.; leukocytes 9,200 with a normal differential count; total serum bilirubin 0.7 mg.; Coombs test negative; red cell fragility normal. The urine was light yellow in color and negative for albumin. A month later the patient remained in good health.

Discussion

Erythrophagocytosis by granulocytes appeared to be the mechanism of hemolysis in this case. This mechanism continued after transfusion of 800 ml. of blood but was arrested after a partial replacement transfusion, indicating that the factors responsible, whether in the red cells, plasma or leukocytes, were potent and continued to act until their removal and dilution. The increased fragility of the red cells during the acute hemolytic episode would suggest a red cell factor but the negative Coombs test affords some evidence against this. It seems likely that a plasma factor may have acted on red cells to make them unstable and may also have increased the phagocytic activity of the granulocytes. Rowley,[2] in 1908, reported a fatal case of erythrophagocytic anemia and estimated that, if all the leukocytes were equally erythrophagocytic all the red cells in the body could be destroyed within 2 hours. Lederer[3,4] described patients with acute acquired hemolytic anemia in 1925 and 1930; he attributed the anemia to infection and did not mention erythrophagocytosis. Hargraves, Herrell and Pearman[5] described a patient with erythrophagocytic anemia in 1941; their patient received daily blood transfusions until the hemoglobin level returned to normal and this patient became cured.

Summary and Conclusions

In a patient with erythrophagocytic hemolytic anemia, partial blood replacement stopped the hemolysis and erythrophagocytosis after ordinary blood transfusions had failed to do so.

It is suggested that erythrophagocytosis should be searched for in patients with acute hemolytic anemia. Replacement blood transfusion may be curative in anemias of this type which fail to respond to ordinary transfusion.

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Poloxalkol in the Treatment of Constipation in Children

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DETERGENT emulsifying agents, also known as surfactants or wetting agents, initiated a new approach to the treatment of constipation and solved many of the problems brought about by side effects incident to most bowel management regimens. Studies of this group of medicaments have mostly been made with dioctyl sodium sulfosuccinate. Its successful use in the treatment of constipation has been reported by a number of authors with an accumulated experience of approximately fifteen years.[1-4] Thus far it has been shown to be essentially free of side effects and toxicity. Amounts equal to 50 to 100 times the usual dose were employed in the treatment of some chronic intestinal disorders without the occurrence of adverse effects. In nutritional studies with dioctyl sodium sulfosuccinate, no effect on the absorption of proteins, fats, or vitamins was demonstrated. However, this agent is unsatisfactory in liquid form. Secondary to its cationic nature, it has a bitter taste, which is hard to mask. Poloxalkol, a new surfactant, is much more satisfactory because it is non-ionic, virtually tasteless, and acceptable to children who must take liquid medicine.

Poloxalkol, like dioctyl sodium sulfosuccinate, aids emulsification and prevents water loss from the fecal mass. This results in a soft, formed stool which is easily passed. Poloxakol is not an oil, a gel, or a bulk producer; and it does not stimulate peristalsis.

Its toxicity is extremely low according to data from animal toxicity studies and from clinical trials in human beings.[7] Available evidence suggests that it is as safe as dioctyl sodium sulfosuccinate.

Materials and Methods

Twenty-three patients aged two months to thirteen years were treated for constipation with a solution of poloxalkol containing 200 mg. per cc. supplied as Polykol Drops®. No effort was made to select the cases. All patients with constipation who presented themselves in my private pediatric practice were included in this study, except for three patients treated with poloxalkol capsules. In most of the children the constipation was idiopathic, in three it was secondary to fissure-in-ano, in two secondary to oral iron therapy, and in one there was a lack of reflex activity sufficient to empty the rectum. Symptoms had been present from one week to ten years and in most cases had been present for several months.

All pediatric age groups were well represented. Ten patients were between the ages of two and twelve months, ten between the ages of two and five years, and six between the ages of five and one-half and thirteen years.

The dosage of poloxalkol ranged from 0.25 cc. twice a day to 2 cc. three times a day. Most frequently patients received 1 cc. t.i.d., and the individual dose was usually given just before a meal. The drops were sometimes mixed with the formula or other foods, but most often were dropped directly into the patient's mouth. With one exception, the medication was given in divided doses.

Results

There were good results in twenty-one courses of treatment in twenty-three patients, fair results in two, and poor results in four (Table I). Of the patients with a fair response two were found to do better when given a peristaltic stimulator, although one of these benefited from the stool softening effect of poloxalkol to the extent that less laxative was required than previously.

The dosage was probably inadequate in two of the four failures: one patient received 0.25 cc. b.i.d.

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This study was supported by a grant from The Upjohn Company; the poloxalkol was supplied as Polykol Drops.®

and the other 0.5 cc. b.i.d. The third patient with a poor response received 2 cc. t.i.d. without effect but did well on larger doses of poloxalkol in capsule form. The other failure was one of acceptance—the patient refused the medication.

TABLE I. RESULTS OF TREATMENT OF CONSTIPATION WITH A SOLUTION OF POLOXALKOL[1]

Daily Dose	Number Patients	Results		
		Good	Fair	Poor
0.5 cc.	1	0	0	1
1.0 cc.	2	1	0	1
1.5 cc.	4	4	0	0
2.0 cc.	4	4	0	0
3.0 cc.	15	12	2	1
6.0 cc.	1	0	0	1
Totals	27	21	2	4

[1]Four patients took two courses.

Side effects were noted in only one patient, who experienced cramps while he was taking 1 cc. three times a day. His mother reduced the dose to 1 cc. twice a day with relief of all symptoms and continued control of the constipation.

Case Reports

T.H., a six-month-old girl with a severe fissure-in-ano of several months duration, experienced considerable pain with each bowel movement. She had two to three hard stools daily. Between stools she complained of abdominal cramps and often vomited. Attempts to correct the constipation by dietary management failed; moreover, the use of sugars to soften the stool increased the abdominal cramps. She was given 0.5 cc. of the poloxalkol solution three times a day before meals for a period of three months. About two days after beginning treatment, her stools became normal. The fissure also healed rapidly without other treatment.

K.N., a two and one-half-year-old boy, had idiopathic constipation of more than two months duration. His stools were hard and difficult to pass. The mother said he often went two to three days without a bowel movement and sometimes required three enemas. Abdominal cramps were frequent between bowel movements. Management with a mineral oil emulsion had produced only moderate improvement. He was given 1 cc. of poloxalkol solution three times a day before meals. The day after this therapy was instituted his stools developed a normal, soft consistency. Treatment was continued for a month without side effects. The mother was most impressed by the assumption of a spontaneous daily pattern of defecation, which had not occurred with other management. It is of interest to note that while on poloxalkol this patient's cramps were relieved, whereas on the mineral oil emulsion he continued to have cramps even though his stool was softened.

J.M., a two-year-old girl, had been constipated for fifteen months. She was usually allowed to go for two days without defacation and then was given various medications. Although blood was sometimes seen in the stool, there was no fissure-in-ano. She was given 1 cc. poloxalkol solution three times a day before meals. Within four days the mother noticed that the stools had become perfectly normal and that bowel movements were spontaneous. No other medication was required and no side effects were observed.

T.S.K., an eight-month-old girl, had iron deficiency anemia and constipation secondary to an oral iron preparation. Mineral oil emulsion, prune juice, and dietary management had not helped the constipation. The patient was given 0.5 cc. poloxalkol solution three times a day before meals and within two days she began to have three spontaneous normal stools daily. One-half cc. t.i.d. proved to be too large a dose when foods with a natural laxative effect were given, and the mother adjusted the dose from two to three times a day depending on foods eaten and other factors such as the administration of antibiotics for upper respiratory infections. Treatment was continued for three months during which time no other bowel management was necessary and no side effects were noted.

Discussion

In the introductory paragraphs the taste of poloxalkol was stressed. Taste is particularly important in young children and infants because it governs acceptance or refusal of medication. Only two patients in this study objected to the taste of the solution of poloxalkol used. A five-year-old child would not take it, and a two-year-old objected at first but later accepted it. Initially, then, the solution was accepted by twenty-one of twenty-three children and subsequently accepted by twenty-two. One little girl (age four) liked it so much that she asked for each dose, and was instrumental in helping her mother to remember to give the medication regularly.

The presenting part of the fecal mass is ordinarily drier and harder than the remainder. Considering this fact I felt that maximum benefit could be obtained from surfactants present in the portion of each food bolus which would first reach the large bowel. Therefore, parents were advised to give poloxalkol immediately before meals.

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Perforated Peptic Ulcer in the Elderly Patient

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PERFORATION of the stomach or duodenum is a common and well recognized complication of peptic ulcer. Its sudden onset, severe pain and board-like abdominal rigidity constitute a commanding clinical entity requiring immediate surgical attention. With these signs and symptoms in a young or middle-aged individual, in most instances confirmed by free air under the diaphragm, correct diagnosis and subsequent treatment are quickly initiated.

However, peritonitis in the older patient, whether chemical or bacterial, does not always present such a characteristic catastrophic picture. Furthermore, we can no longer be assured that perforation of an ulcer rarely occurs after the age of fifty.[1] The rising incidence of peptic ulcer and its complications in the aged is a reflection of our increasing geriatric population.

The purpose of this study is to analyze those cases of perforated peptic ulcer, both living and dead, admitted to Borgess Hospital since January 1, 1958. Emphasis will be placed on those particular diagnostic problems encountered in the older age group.

Twenty-three patients, whose diagnosis of perforated peptic ulcer was confirmed either by surgery or at autopsy, form the basis of this study. Their ages according to decade are summarized in Table I.

In this series there were eleven deaths, eight occurring in patients over sixty. Of these eleven patients six were previously diagnosed and treated as having peptic ulcer. Of the twelve remaining successfully treated and living patients, seven had previous therapy for peptic ulceration.

In all except two of the living patients a correct admitting diagnosis of perforated ulcer was made. By contrast, none of the dead patients were diagnosed on admission as having a perforated viscus. Subsequently in the group of eleven deaths only two patients were finally brought to surgery with closure of the perforation completed.

It soon became apparent that the death of these patients was directly related to an inability to arrive at an early diagnosis. Abdominal pain, when present in patients over sixty, was usually not severe and often not localized to the epigastrium. Abdominal rigidity, while present in all of the patients with successful surgical closure, was conspicuously absent in six of the eleven deaths.

TABLE I.

Decade	Number of Patients
0-10	0
11-20	2 (none died)
21-30	1 (none died)
31-40	0
41-50	5 (2 died)
51-60	6 (1 died)
61-70	1 (1 died)
71-80	6 (5 died)
81-90	2 (2 died)

The majority of the patients in the series of eleven deaths were admitted with a history of recent nausea and vomiting, abdominal pain which was not severe, and signs of mild peritoneal irritation. These complaints were interpreted either as an exacerbation of a previous peptic ulcer (three patients), acute pancreatitis (one patient), cholecystitis (two patients), or bowel obstruction (one patient). In one patient, a forty-five-year old man, a perforated gastric ulcer ended a prolonged terminal phase of esophageal squamous cell carcinoma.

Laboratory findings can be misleading in the diagnosis of peritonitis in the aged. In four autopsied patients, all of whom were over sixty, the total leukocyte count did not exceed 8,050 per cu. mm. However, this apparently normal total white count was accompanied by either an increase in the percentage of neutrophils or a shift to the left in the Schilling index. None of the patients who were successfully treated had a leukocyte count of less than 9,500 per cu. mm.

In four of the autopsied patients, the perforation was secondary to a gastric ulcer, and in one a marginal ulcer; the remaining six patients who expired

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had a perforated duodenal ulcer. All of the surviving patients were surgically treated for a perforated duodenal ulcer.

Generalized peritonitis was present in every autopsied patient. None of these patients revealed any attempt toward spontaneous closure of their perforation by either omental or local tissue reaction. This would refute the argument for "conservative" medical treatment for perforated peptic ulcer in the aged patient. In fact, it would appear that an elderly patient has less opportunity for tissue healing and spontaneous closure than his younger counterpart.

Treatment in the surviving group consisted of simple closure in eleven, and in the twelfth patient an additional subtotal gastrectomy was performed. All of these patients had an uneventful recovery with one exception where a complicating subphrenic abscess occurred.

Discussion

Many authors have emphasized that peptic ulcer is not limited to youth or middle age.[2-7] Indeed Stafford et al[9] found that 35 per cent of the patients admitted to Los Angeles County General Hospital for treatment of peptic ulcer were over sixty years of age. One case in every four from their series presented a major complication requiring surgery.

With an increase in the geriatric population and their medical problems, it becomes necessary to revise our concepts of disease with reference to this age group. Corresponding to the increased incidence of peptic ulcer in the aged are its major complications: obstruction, hemorrhage, intractability of pain, and perforation.[9]

Most authors are in agreement that hemorrhage occurs more frequently than perforation after the age of sixty, and that bleeding may often be massive.[3-5,7] As opposed to hemorrhage, which presents similar clinical findings and diagnostic problems in all age groups, perforation and subsequent peritonitis do not elicit the same prompt and sustained inflammatory response in the aged patient. It would appear that elderly patients do not react to the pain of perforating peptic ulcer and peritonitis as do younger patients.[5] Similarly, the clinical signs of peritonitis are often not apparent in geriatric patients.

As a result, these patients will not seek medical care with the rapidity usually demanded of a perforated viscus. Finally, the attending physician in the absence of clinical signs and symptoms of peritonitis may not press for the etiology of his patient's upper gastrointestinal upset. All of these factors result in advanced peritonitis and a high mortality rate.

Summary

Perforation of peptic ulceration in the aged patient is attended by an extremely high mortality. Eight of nine patients over sixty years of age in our series died. The reason for this high mortality is best related to the milder and less dramatic signs and symptoms of perforation and peritonitis in the aged patient.

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Replacement of Vertebral Bodies by Bone Grafts

Six cases have been reported with photographs of relevant roentgenograms demonstrating destruction or extensive damage of cervical and lumbar vertebrae by infection, tumor, or trauma.

These cases illustrate the feasibility of direct surgical attack upon the diseased area with replacement of the diseased vertebral bodies by bone grafts. Collapse of the vertebral column was thus prevented, and more rapid and safe mobilization of the patients was achieved.

Demonstrated, too, is the advantage of direct biopsy to give accurate diagnosis in destructive lesions of the vertebral bodies.—J. R. Cantrell, M.D., and L. H. Riley, Jr., M.D., Baltimore Surgeon, April, 1960.

Periodic Fever in Private Practice

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FEVER is commonly seen as a manifestation of many diverse ailments, ranging from infections and toxic conditions to neoplastic and metabolic causes. The true etiology may be easily determined or may resist the most intensive investigations. Confusing the entire picture is the concept of psychogenic fever,[1-2] which may be a real entity or a convenient catch-all for any obscure febrile syndrome. One of the most interesting of the febrile entities is that of "periodic fever," variously called "Familial Periodic Disease,"[3] "Familial Mediterranean Fever,"[4] and "La Maladie Periodique,"[5] and broadened by Reimann[6] to include periodic abdominalgia, cyclic neutropenia, periodic arthralgia[7] and later periodic sialorrhea.[8]

I first became interested in periodic fever in 1950 when I was fortunate to see a patient with typical findings. These consisted of recurrent episodes of fever up to 104 degrees at intervals of from three to four weeks, and lasting from five to seven days, with muscle and joint pains and morbiliform rash, plus a history of similar episodes in a son and grandfather. Extensive clinical studies were done and a diagnosis of periodic fever made. This patient was subsequently restudied and reported by Bouroncle and Doan.[9] Although quite common in the Near East, where it is called "The Armenian Disease,"[10] periodic disease has not been common in the United States. Heller's most complete review[4] mentions seventy-four cases and reviews one hundred seventy-nine others collected from the literature. I was therefore a bit surprised to be able to see four cases of the periodic syndrome since beginning practice in Kalamazoo nine years ago. I wish to summarize these cases here, and discuss briefly the recent literature with emphasis on current ideas concerning etiology. For more extensive reviews of the subject the reader is referred to the excellent recent reviews by Heller[4] and Priest and Nixon.[24]

Case Reports

Case 1.—J. B., a thirty-four-year-old-man of French-English ancestry, was originally seen in 1953 with a history of at least twelve episodes of fever, abdominal pain, nausea and obstipation lasting up to several days. On repeated occasions a diagnosis of appendicitis was entertained because of the abdominal tenderness referred into the right lower quadrant, leukocytosis, and fever. However, the patient refused surgery because he knew the episode would go away spontaneously if he waited. Frequency varied from monthly to six months, with no spells for the past two years. System review was negative except for previous allergies of mild nature, and hepatitis while in the service. The patient's father has diabetes and also had similar episodes. Interestingly enough, the father's fever periods apparently lasted from the teens to the thirties and then ceased, a span of years similar to that of his son.

Repeated physical examinations during episodes have disclosed a sallow color, fever to 102 degrees, diffuse lower abdominal tenderness more prominent over MacBurney's point, and on one occasion the spleen was palpable three fingers below the left costal margin. Between episodes, the patient looked and felt entirely well.

Laboratory tests that were done included multiple agglutinations, fasting blood sugar, erythrocyte fragility tests, platelet counts, bromsulfalein liver function test, serum bilirubin, serum proteins with A/G ratio, metabolism tests, multiple stool examinations and urinalyses. Blood counts between episodes were normal.

Complete gastro-intestinal x-rays were normal, as was an intravenous pyelogram.

There have been no attempts at therapy, since there have been no recent episodes, but the patient is ready to try Medrol® should the disease recur.

Case 2.—E. M., a twenty-eight-year-old housewife of Scotch-Irish ancestry with a three year history of recurrent joint pains, had fever as high as 103 degrees and headache. Episodes began in January, 1957, with pain and swelling in the left knee and fever to 103 degrees. She was felt to have infectious arthritis when urine cultures disclosed staphylococci and streptococci, but urinalysis was otherwise negative and films of the kidneys were negative. Other studies done included antistreptolysin titers, L.E. cell test, C-reactive protein and complete blood counts plus x-rays of the knees. All of these were normal. Treatment was begun with Gantrisin® and the fever and aches in the knees disappeared. Recurrences of the above nature took place at approximately monthly intervals subsequently, but ceased when the patient became pregnant, and did not recur until six months following her delivery. I saw the patient at this time when she gave a history of being ill for five days with pain in the right foot below the ankle, then in the kneecaps, with chills

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and fever to 103 degrees. She also had a severe headache, with symptoms helped to some extent by aspirin and Anacin.® Past history disclosed the usual childhood diseases plus urinary tract infection at age twelve or thirteen and recurrent mild anemia. There was no history of drug allergies or other allergic state, and nothing to suggest easy bruising of the skin. Family history was not helpful, being specifically negative for allergies or episodes similar to those described by the patient.

Complete physical examination disclosed some tenderness about the medial meniscus of the left knee and there was question of increased fluid in both knee joints. The right foot was completely negative. Remainder of the examination disclosed only a grade I apical substernal short blowing murmur previously described and felt functional, plus a few small lymph nodes in the left neck.

No extensive laboratory studies were done since the above-mentioned examinations had been unrevealing. Repeat urinalyses, however, were negative. Urinary 17-ketosteroid excretion was 6.9 mgm. in twenty-four hours during an episode of fever, rising to 39.6 mgm. in twenty-four hours following the administration of 40 units of zinc ACTH. Urinary gonadotrophins were 12 M.U. per day, and estrogen excretion 2.6 gamma (R.U.) per day. Serum electrophoresis disclosed normal results.

Since being under my care, the patient has had approximately six episodes of fever, headache and joint pains. Antibiotics were not used since they had been previously tried without benefit. Analgesics and tranquilizers were used but were not effective and finally Medrol® therapy was instituted. Relief on 16 mgm. daily of this drug has been dramatic, with freedom from episodes as long as three months. Another recent severe episode lasting six days has been promptly relieved by Medrol.® The patient's general health remains excellent.

Case 3.—M. I., a thirty-three-year-old housewife, has been having episodes of fever, chills, headache and generalized malaise with prostration for the past four years. Recurrences are irregular, from every week to every month and last two to three days with fever as high as 99.6 degrees. She has had many treatments with antibiotics, with some benefit apparently from Aureomycin.® Episodes ceased in this patient also when pregnant, and on one occasion she went three months without symptoms. In June, 1956, she was hospitalized and extensive tests were done but were all negative. These included agglutinations for typhoid, paratyphoid and brucella, plus complete gastrointestinal x-rays, intravenous pyelograms and sinus films. A mild elevation of the sedimentation rate and hypothroidism were the only subsequent findings on repeated testings, including multiple blood counts and urinalyses.

I saw the patient first in January, 1959, at which time the history was as presented above. She also had symptoms suggesting premenstrual tension, recurrent mild anxiety and hypothyroidism. Family history was unrewarding since the patient is adopted. On examination the only positive findings were small, rubbery, discrete nodes in the post-cerival areas and at the angles of the jaws. These had been previously described in 1958 and were essentially unchanged. Spleen was not enlarged and no axillary or inguinal nodes were palpable. A transient, variable aortic and mitral systolic blowing murmur was heard and felt to be functional in origin. Proctoscopic and pelvic examinations were also normal.

Repeat blood count disclosed a sedimentation rate of 22 mm. per hour. BMR minus 12 per cent. Other studies yielding normal results were antistreptolysin titer, L. E. cell test, agglutinations for brucella, typhoid and paratyphoid, three stools for ova and parasites, electrocardiogram, 17-ketosteroid excretion, serum proteins, gall bladder and chest x-rays. An otolaryngologist found no evidence of sinus infection or disease in the ears, nose or throat.

The patient's health has remained stable except for another miscarriage and a recent severe episode lasting two weeks and coming on following a bout of influenza.

Case 4.—J. B., is a thirty-four-year-old male executive, whose illness has been followed for the past three years. Symptoms have been present for five years and consist of approximately monthly episodes of fever up to 102 degrees, lasting from four to twenty-four hours. There is fatigue and aching and malaise when he has the fever and following the episode he will be tired but then will feel entirely well until another episode occurs. About one year after the onset of his symptoms a malarial smear was obtained which was reported as showing malarial parasites. He was treated with quinine which was successful as long as he took it, but the fever episodes would recur when he stopped the quinine. Patient has never been out of the continental United States but has been in Florida and Texas for short periods. Multiple thick film preparations were negative for malarial parasites during febrile episodes, but in spite of this he was placed on Pamaquin therapy without effect. Spleen has never been palpable but the liver edge has been felt on several occasions, once as far down as three fingers. Patient has no known allergies. There are no particular headaches when he is ill or at other times. He does think that excessive fatigue or drinking or stress may precipitate an episode. Several complete physical examinations have revealed nothing other than the mentioned mild hepatomegaly, and on one occasion during a febrile episode exudative tonsillitis was noted. Because of this he underwent tonsillectomy, without effect upon his febrile episodes. White count has been found to be consistently elevated, from 11,500 to 20,000. Because of concern about the episodes, the patient was seen at the Cleveland Clinic in 1958. At this time general examination was negative again except for the palpable liver edge. Leukocytosis of 13,500 with 65 per cent neutrophils was again noted. Multiple agglutinations and skin tests plus malarial smear, cephalin flocculation test, and L.E. cell tests were all negative. Blood urea nitrogen was elevated to 37 mg. per cent. Chest and kidney x-rays were normal as was the small bowel and colon and terminal ilium. These consultants did not feel that the patient had any chronic internal infection as the cause of his symptoms and speculated about the possibility of diencephalic discharge or atypical migraine to account for the episodes.

Other studies done have included sinus films and total serum proteins with A/G ratio, which were grossly normal. Serum electrophoresis disclosed slight elevation of the Beta globulin fraction to 18 per cent. 17-ketosteroid excretion was 23 mgm. in a twenty-four-hour sample of urine.

Since the explanation of the nature of these episodes, the patient has been much relieved and they seem less severe. He does not wish to try steroids or sedatives since he knows that the fever will go away shortly if he just waits. His general health remains excellent.

Discussion

The basic cause of the illness described as periodic fever has been debated for years, the explanation varying with the popular ideas of the time. This is well illustrated by Janeway's case[11] of 1908, which was probably the first clear-cut report of the condi-

tion. He speculated on infectious, "toxemic," migrainous and other central nervous system possibilities including neurosis, and concluded that "toxemic" causes were most likely the explanation. His patient was later seen by Cooke,[12] who felt he cured this same patient by removing milk from her diet and therefore felt the cause could be allergy. His thesis was supported by Rowe,[13] who reported another patient cured by a diet eliminating milk. He felt a localized or generalized allergy could affect the temperature regulating mechanism of the brain in such a way as to cause the recurrent episodes, or possibly through accumulation of specific reacting antibodies in the shock organs involved.

That chronic infection may confuse the issue is seen by the plethora of attempts made in almost all cases reported to find an infectious agent. The report of Allen[14] bears this out, since his patient was reported cured by tonsillectomy, only to be subsequently restudied by Wolf and Wolff[15] and felt to have febrile episodes due to unusual anxiety and tension acting on unstable thermoregulatory centers in the brain. Certainly the case reported by these authors has many similarities to Case 4 described above.

Other influences than emotion on the hypothalamus have been found to cause recurrent febrile episodes, usually with other associated hypothalamic findings. Aring and Engel[16] reviewed the physiologic, psychologic and anatomic aspects of the hypothalamic disturbances most completely and described a patient with reccurent hyperthermic episodes, plus changes in blood pressure, respiration, gastrointestinal motility and urinary output. These episodes could be precipitated by emotional influences. The studies of these authors confirmed and enlarged the work of Penfield,[17] who introduced the concept of "Diencephalic Autonomic Epilepsy" and described a patient with a ball valve tumor of the third ventricle. However, this patient had episodes of hypothermia, apparently due to involvement of a different area of the hypothalamus from the patient of Aring and Engel. Bauer,[18] in discussing hypothalamic hyperthermia, emphasized three characteristic findings: (1) absence of general malaise common with high temperatures of toxic origin; (2) coldness and clamminess of the extremities, and (3) unresponsiveness to salicylate and responsiveness to cerebral sedatives. He described the convulsions of hypothalamic origin as distinct, with no loss of consciousness, an aura of convulsive laughing or crying, decerebrate rigidity, extreme perspiration, very high pulse rate, low blood pressure, popping eyes and extreme fright. These findings are vastly different from the reported cases of "abdominal epilepsy,"[19-20] which have abdominal pain and hypermotility up to twenty-four hours in duration but no fever.

More recently, Bondy and associates[21] have suggested that etiocholanolone may be a possible cause of the recurrent febrile syndrome known as periodic fever. This suggestion followed the work of Kappas and associates,[22] who reported on the pyrogenic and inflammatory reaction produced by a substance (etiocholanolone) of physiologic origin from adrenal and gonadal tissue. This reaction was greatly lessened by pre-treatment with cortisone and the severity benefited by aspirin. The former authors reported elevation of free etiocholanolone in the plasma of two cases of periodic fever, but only during the febrile episodes. They felt that the liver might be intermittently unable to congugate the steroid with resulting elevated blood levels and clinical symptoms, and cited abnormalities in liver function, particularly altered A/G ratios as evidence.

The observation that periodic fever is often complicated by nephropathy,[5] and eventually amyloidosis,[23,24] led Tuqan[25] to review from a clinicopathologic viewpoint the extensive experience with the disease at the American University Hospital in Beirut, Lebanon. He found in tissues removed during acute episodes mild acute inflammation of a non-specific sort, with edema, congestion and infiltration with polymorphonuclear leukocytes and round cells. He found an absence of fibrin in the specimens and felt this was why granulations and intestinal obstruction did not develop. The fact that the edema fluid contained considerable protein was also felt of considerable importance. Tuqan also found two autopsied cases with amyloid deposits in kidneys, spleen and vessels of the liver. He felt the early glomerular lesions resembled the wire loops seen in disseminated lupus erythematosus. He was also convinced that amyloid was a precipitated antigen-antibody complex, citing the work of Mellors,[26] who used fluorescent techniques to demonstrate localized gamma globulin in the glomeruli in renal amyloidosis, glomerulonephritis and allied diseases. He concluded that from the anatomic, clinical and immunologic and chemical features demonstrated he felt collagen disease, amyloidosis and periodic fever are related entities and in fact periodic fever may be a collagen disease. Other interesting evidence is supplied by Eklund and Reimann,[27] who produced amyloidosis preceded by constant hyperglobulinemia in rabbits by repeated injections of sodium caseinate, and concluded that chronic hyperglobulinemia was an important factor

in the etiology of amyloidosis of the secondary type. Priest and Nixon[28] agreed with the above concept and stressed the conclusive work of DeVries[29] and associates. These workers used the electron microscope to describe abnormal red cell membranes in patients with the disease, and postulated that periodic fever was auto-immune disease developing on a constitutional basis of defective structure of the red cells. These latter concepts seem most convincing, although there are some features that are as yet unexplained, such as the reason for the intermittent nature of the spells, the remissions seen during pregnancy, and the occasional response to steroids, as dramatically demonstrated in Case 1 above and the patient of Bournocle.[9]

Heller[4] concluded that the abnormalities seen by DeVries and his co-workers were again merely manifestations of the disease and not really the etiology, and suggested that the basic metabolic error may prove to be a disturbance of porphyrin metabolism, as evidenced by elevated uroporphyrin levels found in twenty-five of their cases.

Conclusion

Certainly the question of etiology remains to some extent unsettled, and it is my belief that with further studies the diagnosis will be made on a more positive basis than by exclusion, with perhaps several subgroups emerging. It is also hoped that new therapy will be developed for those types not currently responding to steroids. That this may be already coming true is seen in the recent suggestion by Reimann[30] that fluoromethalone may prove to be of value in the treatment of periodic fever.

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An Existential Approach to the Psychiatric Interview

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THIS COMMUNICATION will describe the use of the psychiatric consultation for brief therapy to change the disturbance of equilibrium in the patient by using the transaction between her and the physician. The disturbance of equilibrium will be described in the area of the identity problem, or problem of existence. Three patients will be cited, the third in greatest detail.

Before describing the clinical material, let me review several of the concepts that are utilized in which the collection of data is also part of the actual process of therapeutic intervention.

Concepts

I. Identity

I like to call *Identity*, the first of these concepts, the possession of a good-packaged feeling. As with a crustacean, or better, a turtle, the person is surrounded by armor-plate; we are surrounded by our integument. Our ego-boundaries are the limits where the "I" stops and the "not-me" begins. Intact ego-boundaries are crucial for knowing who-is-who in transactions with other human beings. The following semantic problem, seen in communication transactions, is a common indicator of a disturbance of these boundaries, the use of the pronoun "you" in referring to the self. Many non-neurotic people have this semantic habit, of course, because it is cultural. And some non-neurotic people do not have it. But all the people I see in consultation have it; it is part of their identity problem. We hear them talking as egos in the second person about themselves in a "not-me" sense.

Clinical Example A.—Please imagine the patient saying, "You know how it is if you hear the kids screaming for a couple of hours before supper and you are trying to get dinner and you don't know how you should feel and your husband comes in and he says, 'Why do you look so tired?' and you think why shouldn't you look tired and you would like to belt him and you say to him why shouldn't you look tired, you jerk." And I say to my patient, "Yes, you do look tired," and the patient says to me, "You sure do."

In this case we see that communication has substantially broken down. On the basis of language it is not clear who is complaining, who is listening, who is being talked about, or experiencing fatigue or criticizing, or who is tired: the girl, the husband, or the doctor.

II. Primary Process

A second concept is *Primary Process.* We know that in the earliest infant-mommie relationship the infant does not separate itself from the mother; as a matter of fact, the infant feels gloriously united when in contact, and complete only then; when mother goes away from the infant, baby has the profoundly disturbing feeling: "part of me has detached itself from me and has walked away." In other words, this is a sort of condensation; also, part can stand for the totality, and the infant feels, "if part of me is gone, I am all gone."

Deficiency in growth of a mature Ego allows persistence of these primary process problems; stress can create regression and allow them to surface. We frequently see this difficulty in differentiating between subject and object, or between the me and the not-me. It is helpful, early in treatment to focus some attention on this by stating: "When I talk about me, I understand myself better, and I

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have a better awareness that I am myself, and I know better what my feelings are if I use the word I, not the word YOU. As people, we understand each other better if, when we are talking about ourselves, we use the first person 'I'." People gradually catch onto this after I have reminded them of what they are doing several dozen times in the first few sessions. It focuses attention on the self as being-in-the-world with realness. Why talk about primary process? I believe that an awareness of this helps us to view the over-all concept of identity; the efficiency of the functioning of an ego is largely determined by its control over primary process thinking and perception of itself as an individual, neither parasitic nor symbiotic in interpersonal relationships.

III. Ego Boundary Diffusion

The psychiatrist uses the term border-line condition frequently to describe those individuals who have a high level of primary process in their character structure. We see this come to a sharp focus in people who are terribly busy imagining what other people are imagining about them, and without cues from the other person, they proceed to react to that person on a basis of what has been imagined. This further leads to the confusing result that the imaginer is not certain whether his thoughts actually belong to himself or to the other person; it leads to all manner of difficulties in relationships.

Clinical Example B.—I am thinking of a young professional woman who works with psychiatric patients and wears a white uniform. For the first few sessions with me she was late, and we learned that this was due to her changing from her white uniform to her street clothes before coming to her session. When I mildly wondered if this was an unnecessary burden of formality, she stated that all day long in her white uniform she felt that it defined her role in working with psychiatric patients. Now she was worrying that if she wore the uniform to her session she would have difficulty in knowing if she were therapist or if I were; the uniform implied a role in the scene, and in playing her bit, it became herself, as therapist; to change her role it was necessary to change uniform. Further, she felt she should identify with me, but this carried with it the danger of loss of ego boundaries and feeling of selfness in thus failing to differentiate herself from myself and lead to a terror that she would get lost, at the interface, or point of contact with me. This getting-lost occurs in her relations with people if she does not stand aloof from them, and to help her, we proceed to examine the question of existence: what is her world? what is her self? Where does she begin and end and where does her world begin and end and where are her boundaries?

Clinical Example C.—The third example submitted is an orthopedic patient who had been in bed for five weeks during which period she had myelography and had been in traction-therapy for backache. This required considerable immobility and passivity, and further created a considerable feeling of helplessness which she had accepted with apparent success until forty-eight hours before I first saw her. She had become overwhelmed with panic to the extent that she and the staff were both certain that she had no control over herself: mind, emotions, bodily sensations or behavior. None of the medication given, and she had had much, covered the tremendous tension she was experiencing.

It was helpful initially to recognize with her that she was afraid of total loss of control of the self, and further noting that this had the more sweeping significance to her that she was insane. This excellent lady felt that she didn't have total control and therefore to her this meant no control.

Her usual technique to solve such a problem was two-fold: first, to put it out of mind: "I am not going to let myself think any unpleasant thoughts or experience any improper or unpleasant emotions, nor let unpleasant sensations bother me;" secondly, to tighten up all voluntary muscle and thus surround herself with a package of armor-plated muscular stiffness. Those two techniques resulted in a sort of total bracing, skeletal muscles and mental apparatus; the more frightened, the more bracing and so on, so that the problem-solving measures were creating the problem, and the greater the control applied, the more helpless she became. The situation worsened by the moment.

From an existential point of view, we can see that she was a being-in-the-world, it was her world, she was the most important person in it, and something had happened to it, so she was asked, "Tell me about your world." Obviously this is a very strange question, unconventional and surprising; and as she did not answer, it was repeated. She stated, "I work and take care of my children." This answer apparently had nothing to do with the presenting situation.

She then went on to describe the here and now: how uncomfortable she felt and how glad she was to see me and how she just knew that I was going to help her. Thus we see that she was describing her world as she saw it right now and also was informing me

that she had a strong belief in the magical power of hope, and that concentrating on this magic would somehow make things happen. She also was revealing that the physician was a highly over-estimated and over-evaluated omniscient and omnipotent personage. Furthermore, she was confusing knowing with hoping. She was therefore gently informed that neither of us could possibly know that I was going to help her, but that we could both hope that she would be able to tell me a lot about herself. This was important so that physician and patient would not jointly believe in magic. She was then asked, "Tell me all you can about your world." She stated, "Well, you know I'm a nurse and have no husband, and I take care of my children and work." She then drifted off to tell me about the sensations under her skin, her air-swallowing, urinary frequency, pain and tenderness in her joints, and pleaded with me to help her. I grinned and said that I was going to do the best I could but could she tell me more about her world. This was annoying her, which was revealed by a petulant question: why did I keep coming back to that? Didn't I know that she worked and took care of the kids? She was then asked, "What have you been doing for the past five weeks?" This was a surprise. She said, "I have been lying here." I then said tentatively, "it must have hurt your dignity." At this she burst into tears and said with great feeling, "What? Why should it?"

There are two things of interest in this outburst. First is transference: already we know that before seeing me she had had me endowed with a halo, of being all-knowing and all-powerful and this included the trapping of long buried infantile feeling toward her parents. Therefore, it was more than mere appropriate annoyance with me in the present situation, behaving as I was unexpectedly, and disappointing her anticipation of something heroic. Secondly, we notice her use of the word "should." This is another common semantic problem: this word probably meant an assortment of things, such as, "You are accusing me of being sensitive, when you ask if it hurt my dignity, and I shouldn't be sensitive, and if you remind me that I am, you are damaging an illusion of mine, namely, that I am strong and insensitive; and further, I don't want to know that my dignity has been hurt, and I don't want you to know it, and I prefer to pretend that it isn't, and if you suggest, or accuse me that it is hurt, does that mean that you know more about me than I know about me, and if so, are you criticizing me or are you telling me that my dignity should not be hurt; and finally, are you telling me that I am a sissy to let something hurt me?" All of this is involved with the word "should," when she said, "Why should it hurt my dignity?"

She was then informed, "I don't know that it should hurt your dignity, but I feel that it *has*." She answered, "Well, would you like to lie here like this and feel that nothing is being done?" She then continued with angry tears to tell me about the realistic suffering which she had experienced and this went on for about ten minutes. It covered a lot of different areas of suffering which involved loss of self esteem and her picture of herself as being helpless, to say nothing of the bodily discomfort, which we notice was increased by the defensive bracing. After a measure of this, she finally stopped, mopped the tears and smiled apologetically, expecting me to be as ashamed of her as she was of herself for having complained and wept.

I said tentatively, "It is difficult for you to cry?" And she poutingly said, "Why should you cry; you haven't anything to cry about." Let us note together the language here: the word "you" used for the self, and the word "should." We also observe the destructive attitude toward the feeling-self, the denial of self, and the denial of the reality situation which really was something to weep about. I waited for her to continue, she was silent, and I waited some more and she was silent some more, so I finally asked, "Tell me more about your world." She again was clearly petulant and yet seemed to be a little more familiar with the question, for with a touch of playfulness she said, "Oh, you are coming back to that again."

It was now felt that we had enough data and that it would be possible to feed back (like in an audio electronic set-up) what she had been saying about herself and her world: that she was a widow, a sole parent, a nurse, and that obviously she had not been her real self for the past five weeks, since she had been out-of-her-real-world. Then very slowly, for emphasis, and in the first person, she was informed, ". . . and when we feel that we are not ourselves and in our world, we do not feel real, and when we do not feel real we feel crazy." This was startling. Something changed.

Discussion

We also know, since she is a member of the healing profession, that her image of herself would include being superordinate and not being subordinate, in the helper-helpee interaction. She fancied herself as a helper, and not as a person who needed help. This

is a very delicate area, for involved, of course, is the matter of secondary gain. After all, when we are helpless there is some satisfaction in being cared for because we never outgrow that little tugging feeling from the past, reminding us of the pleasures of being babied.

In the case of excellent citizens like this worthy nurse, however, vast accounts of guilt attend such gratifications and temptations to enjoy being comforted must be handled in some way. Her way was to use the mechanism of denial, and it was fairly obvious that she was very angry with herself. This naturally would be reinforced if the staff implied in any way that she was making a baby out of herself and that she ought to have better control, and some measure of this had been communicated by her colleagues. We also see that deeply embedded in the characterologic matrix was a need to deny dependency yearnings, and to be very harsh with herself. Merely being a patient, she was in an extremely dangerous position for the self-esteem, and under this impact, identity was ebbing away: she was not her real self, and therefore not functionally real. Her home-world was absent; her occupation-world was reversed. All was sacrificed.

This is a kind of person on whom tranquilizing medication has a negative therapeutic effect. There is a fuzzy feeling, a loss of acuity and customary alertness, a diminished clarity of intergrated thinking and conceptualizing, a loss of awareness of the self, others, and relationships between the two, and there is a decrease in the effectiveness of customary controls. She was therefore informed that all medications except aspirin would be discontinued, and this was accompanied by the supporting statement that it was not imagined that she was the kind of person who wanted to depend on chemical help. Her confirmation of this was revealed in an emphatic statement that she liked to be in control of herself. She also stated that she was now more comfortable, but was apprehensive about the coming night. And we recognized together that the absence of people, noises and stimuli in general made people feel cut-off and alone, and less real in the night; but that this was not serious.

The next morning her surgeon informed me that she was demanding to be released from the hospital, and that he saw no orthopedic reason to oppose this. She was permitted to leave. She was somewhat apprehensive about this and wondered about how convalescence at home would proceed, but we recognized together that being home would make her feel more real, that as she reestablished her muscle tone she would soon be able to get back to work, that she should anticipate some nervousness until she fully resumed her roles both as the working and the supporting parent, and that she would undoubtedly feel better.

Conclusion

In review, then, we have a transaction between physician and patient which was meaningful and which was healing. This involved interpretation of and recognition of the need for an identity and a feeling of *selfness* as a unique person, as *a-being-in-the-world*, the individual world of the person herself. In being ill, her roles were changed, her image of herself jolted, her identity diffused. She had felt a loss of control, anxiety and guilt, and had tried to defend herself with repression and bracing. The symptoms had increased. The mechanisms of regression, denial and reversal were used with increasing panic. Primary process material invaded the present situation as ego controls diminished, and she had been threatened with total decompensation.

The therapeutic consultation made use of transference, and the existential question, "Tell me about your world" provided the framework in which all of this could be fitted together and utilized for a therapeutic encounter.

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Ludwig's Angina with Associated Acute Glomerulonephritis

A Discussion with Report of a Case

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RECENT literature concerning Ludwig's angina is sparse. Although this process has a rich history,[24] present-day therapeutics, in the form of early and intensive antibiotic therapy, has reduced its incidence to near the vanishing point. Nevertheless, sporadic cases do occur and present what may become demanding problems. This communication is submitted to document a recent case coexistent with acute glomerulonephritis.

Historical

Although some writers[33] have felt Ludwig's angina is synonymous with a great variety of conditions, the disease has been well characterized by a number of authors; including particularly Ashhurst,[2] Davis,[12] Grodinsky,[15,16] and Thomas.[36] These authorities have explored in detail the fascial spaces and planes of the neck. All agree essentially with Ashhurst, who states, "(Ludwig's angina) is an acute inflammatory process involving the floor of the mouth and the submaxillary region on one or both sides of the neck. It is the simultaneous involvement of the submaxillary and sublingual tissues in a confluent septic cellulitis that warrants the condition being recognized as a distinct clinical entity." Williams[37] goes on to add, "Clinical manifestations of infection in both of these regions are prerequisite for a diagnosis. Other spaces may or may not be involved."

Current surgical texts[4,5,9,20,23] seem in basic agreement with Ashhurst and Williams, but interesting paradoxes are present.[1,13] One current text dismisses Ludwig's angina in an early chapter as "a vague term applied to diffuse swelling of the neck . . .;" while a few pages later it states, ". . . a typical Ludwig's infection involves all three compartments, the sublingual, submaxillary, and submental, on either one or both sides of the midline."

Ludwig himself was apparently not the first to describe the condition which bears his name. At least two authors have fixed the source of the first description of this angina as Hippocrates.[22,24] Paulus of Aegena, Areatus, and Galen are also credited with having recognized it. In the more recent remote writings, Wells (1809), Gregory (1822),[15,36] and Gensoul (1830)[10] antedated Wilhelm Frederick von Ludwig, the physician who in 1836 published the untitled article[7] responsible for his fame. Since Ludwig's time, there have been many articles concerning the clinical findings, either supporting or disputing the contention that Ludwig's angina is truly a distinct clinical syndrome. Most recent authors are agreed that the condition is distinctive and, although uncommon, of sufficient importance to be considered a clinical entity.[19] Ashhurst states it succinctly, "If physicians refuse to give it such recognition, they are making a backward step comparable to that which would be taken if they still refused to recognize the clinical entity appendicitis as distinct from typhlitis or enteritis or peritonitis."

Characterization

Clinically, Ludwig's angina is a striking condition. In the full-blown case, the patient presents with a marked tender swelling from chin to hyoid bone. The tongue is elevated and may protrude between the teeth. Because of the swelling, there is difficulty closing the mouth and swallowing may be impossible. Dyspnea is prominent and the obstruction may rapidly become complete. The suprahyoid swelling has been described as "brawny" or "woody" and fluctuation is rare. Most frequently a dental origin has been incriminated, but Kimbrig quotes Stewart[34] as stating there are "over thirty-five causes of cellulitis of the face and neck," so the condition may be generated from many sources.

As stated above, the uniqueness of Ludwig's angina lies in the coincident involvement of both submaxillary and sublingual tissues. Briefly, this involvement of the submandibular space[15] (Grodinsky) involves infection in an area limited superiorly by the mucous membrane of the floor of the mouth; anteriorly and

laterally by the inner surface of the mandible; antero-inferiorly and infero-laterally by the superficial layer of deep cervical fascia; inferiorly by the hyoid bone, hyoglossus muscle, and visceral fascia over the superior pharyngeal constrictor muscles; and in communication supero-laterally with the lateral pharyngeal space. The submaxillary and submental compartments are separated from the sublingual by the diaphragm-like mylohyoid muscle and communicate at its extreme posterior border, around which curves the submaxillary gland.

Classifically, treatment has been by deep incisions through the submental region to or through the sublingual mucosa. The purpose of these incisions is not primarily to establish drainage, for frequently there is little or none, but to relieve pressure in this confined space. If this is not done rapidly, there may be mediastinitis through extension along fascial planes, suffocation by laryngeal compression or glottic edema, or large tissue loss due to pressure necrosis.[37] With the advent of antibiotics, therapy has shifted somewhat so that there are several reports of Ludwig's angina having been successfully treated without operation,[21,26] as was the present case. Operation is suggested only to prevent likely complications.

Analysis of causative organisms[12,25,35,37] has revealed a great preponderance of streptococcal or mixed streptococcal-staphylococcal or streptococcal-pneumococcal infections, although occasionally, gas-forming organisms[25,37] and other bacteria have been discovered.

With such therapy, mortality has decreased from earlier reports of 40 to 60 per cent[27,35] to as low as 10 per cent in 1943.[38] Large series in the present time would probably show mortalities of 5 per cent, or even less.

Acute Glomerulonephritis

Acute glomerulonephritis is perhaps a somewhat less exotic clinical syndrome. It is well known that acute glomerulonephritis has been established as a complication of infection with a nephritogenic type of group A streptococcus, most frequently of Type 12.[29,32] Frequently there is nothing remarkable about the preceding streptococcal infection, and it may not be noticed. From one to four weeks later,[14,29] a typically severe case will have the sudden onset of hematuria, edema, and hypertension. Proteinuria, hematuria, and probably red blood cell casts will be noted on laboratory examination. Other than treatment of the streptococcal infection, if still present, definitive care is limited to bed rest and careful control over nutrition, fluids, and the hypertension.[18,29,32] Steroids may be considered.[11] In 95 per cent or more of children who have the acute form of the disease, recovery is spontaneous and complete; however, with onset of the acute phase as adults, the per cent who have eventual chronic glomerulonephritis is thought to be greater than fifty.[32]

The following case report, we believe, represents, so far as a careful review of the literature can tell, the first documented episode of acute glomerulonephritis associated with Ludwig's angina:

Case Report

R. McK., a forty-year-old white businessman, had a subtotal septal reconstruction on October 24, 1959, for severe septal deviation and chronic irritative rhinitis. Blood pressure was 130/90 and urinalysis not abnormal during this two-day hospitalization. Following release, the septal wound healed well, but there was some continued crusting and bloody discharge from the nose. About January 30, 1960, the patient noted tenderness and swelling in the right submaxillary area. These complaints persisted, and on February 4, 1960, there was the acute onset of pain within the left ear and below the angle of the left jaw. One of us (R.B.) was called and the patient was given 400,000 units SR penicillin intramuscularly. Despite medication, the swelling progressed beneath the jaw and the suprahyoid region became very tense. Temperature reached 101 degrees as read by the patient, and he was seen in the office as an out-patient at 3:30 P.M., February 6, 1960. About 3:00 P.M., he had voided the first recognized "coffee-colored" urine specimen. After examination, he was hospitalized.

Past history revealed no previous history of scarlet fever, tonsillitis, glomerulonephritis, or rheumatic fever. One daughter had had what was apparently acute glomerulonephritis eight years previously.

Physical examination revealed a large, moderately obese white man who was febrile and toxic. Blood pressure 150/90, temperature 102 degrees orally. The submandibular area was massively swollen and tender. No fluctuation could be detected and the consistency of the neck was "woody." The mouth was held open, and the tongue forced against the roof of the mouth. Pharynx could not be seen. Periorbital and pedal edema were noted.

The patient was given 400,000 units SR penicillin on admission and b.i.d. One thousand cc. 5 per cent glucose in saline was given intravenously. A tracheotomy set was placed at bedside. No throat culture was taken.

The patient progressed well. Some dyspnea was present through the night of February 5, 1960, but by 10:00 A.M., February 6, 1960, the swelling had receded sufficiently to permit unobstructed breathing. Direct inspection and indirect laryngoscopy showed the uvula and soft palate to be ecchymotic and swollen. There was moderate edema of epiglottis and soft tissues of the laryngeal folds. Submaxillary areas were still firmly swollen, but somewhat less prominent. Laboratory examinations revealed protein-uria with marked hematuria and numerous granular casts. White blood count was 13,050 with 89 per cent neutrophils. Antistreptolysin 0 titer was positive at 100 Todd units. By February 9, 1960, submandibular tenderness was nearly gone, and the swelling had decreased markedly. The patient swallowed easily. Urine output, which was estimated at 800 cc. on February 6, fell to 610 cc. on February 8, and 750 cc. on

February 9, but thereafter rose above 1,000 cc. per day for the remainder of his hospitalization. White blood count fell to below 10,000 by February 7. Urinalyses continued to show proteinuria and microhematuria until his discharge. One blood cast was found on February 12. The patient's blood pressure, which had been elevated only slightly on admission, rose to 170/95 on February 11, and to its peak of 220/130 on February 15. No funduscopic changes were seen, and by the afternoon of February 15, had receded to 185/115. Over the next three days, it fell to 170/105, and hypotensive medications were not used while the patient was hospitalized. On February 15, antistreptolysin 0 titer was 333 Todd units.

The patient was kept at bed rest throughout the two weeks of hospitalization and discharged on oral penicillin to convalesce at home. His progress at home has been satisfactory. Urinalyses were negative for protein by April 6, though microhematuria was still present on May 6. Blood pressure fell gradually and was 140/100 on April 8; at this time, he was placed on a hypotensive agent. On May 6, when blood pressure was 130/85, this was discontinued.

Discussion

It is not difficult to see how Ludwig's angina and acute glomerulonephritis might become related. About 70 per cent of the cultures taken from patients with Ludwig's angina proved to contain streptococci, as stated above. It is not unlikely that a nephritogenic strain would be involved. No throat cultures of this patient were taken; however, as stated by Rammelkamp,[28] modern antibacterial therapy alters the flora of the respiratory tract, making isolation of the bacteria responsible for kidney disease difficult, if not impossible. In the present patient, who received penicillin at home well before his hospitalization, we feel culture would most likely have been negative.

In this case, the timing of the onset of symptoms with the eventual acute production of *both* the Ludwig's angina and the acute glomerulonephritis is such as to suggest they came from a common source: a pharyngitis, or perhaps rhinitis.

While prior reports of Ludwig's angina associated with acute glomerulonephritis have not been published, one report, to our knowledge,[30] has appeared in the French literature reporting the coexistence of Ludwig's angina, diabetes, and "Bright's disease." Analysis of the article tends to indicate that the patient reported may have had either a Kimmelstiel-Wilson syndrome or chronic glomerulonephritis, but not acute glomerulonephritis.

The possibility that acute glomerulonephritis has occurred previously in patients with Ludwig's angina is high. Rammelkamp[29] points out that in the course of acute glomerulonephritis, there may be minimal hematuria with onset of the streptococcal disease which clears and is followed by development of the acute syndrome at the indicated time, approximately ten days later. Patients reported by Ashhurst had albuminuria and hematuria during the course of their Ludwig's angina. No doubt other patients also had similar findings. If these patients had recovered, they might later have developed an acute glomerulonephritis. Nevertheless, all patients whose reported case histories we have studied and who had symptoms similar to these, died from their Ludwig's angina. It is possible that patients, severely ill with Ludwig's angina, who also developed renal hypersensitivity reactions to the streptococci responsible, were unable to recover. The combination of both conditions, even with radical surgery, might well be sufficient to have caused death. If this is true, as a greater per cent recovery from Ludwig's angina, the incidence of acute glomerulonephritis in these patients may rise. It is suggested that this possibility be kept in mind as another complication of the syndrome, Ludwig's angina.

Summary

1. Ludwig's angina is a distinct clinical entity characterized by acute inflammation of the "submaxillary and sublingual tissues in a confluent septic cellulitis."[2]

2. The classical therapy—deep, extensive submaxillary incision—has been supplemented and often replaced by antibacterial treatment, largely in the form of massive doses of penicillin.

3. The first reported case of the association of Ludwig's angina and acute glomerulonephritis is presented.

4. The two conditions are felt to be related in the patient presented because (a) the organism which may be responsible for acute glomerulonephritis is the most frequent cause of Ludwig's angina and (b) the latent period of acute glomerulonephritis corresponds well with the prodromal period of this patient's Ludwig's angina.

5. Glomerulonephritis may be considered another possible complication of Ludwig's angina.

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Directory of Blood Facilities

A new directory describing 3,779 blood transfusion facilities and identifying their services has been mailed to each listed institution by the Joint Blood Council from its headquarters in Washington, D. C.

This second directory by the JBC lists nearly twice the number of blood handling institutions as the 1958 edition. It shows the location of facilities, the extent of their operations, how they are organized, what specific services they offer and other information of importance to physicians, hospitals, and any person or organization interested in blood and its derivatives. Based upon data furnished by the respondents the 1960 edition includes 2,214 which are defined functionally as blood banks and 1,565 are blood using facilities only. Of the blood banks 102 identify their primary activity as a blood collection and donor service.

Tissue and mothers' milk banks are identified with the facilities offering these services. Numerically they are: eye banks 88, artery banks 70, mothers' milk banks 18, bone banks 232 and skin banks 26. Of the total facilities listed 883 have received assignments in a local civil defense program.

The Office and Out-Patient Treatment of Leukemia

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THE CONCEPT of the out-patient treatment of leukemia is not new, but re-emphasis in this direction is needed because of accelerated community and population growth. Hospital facilities should be reserved for the acutely ill; the leukemic patient, until he develops one of the serious complications of his disease, can usually be managed at home and may continue at his occupation. Leukemia is one of the major medical problems of the present and is increasing in its incidence.[1] In the future, an increased number of patients may make the out-patient system of treatment a necessity. All of the laboratory procedures for the diagnosis and treatment of leukemia can be performed without the patient's formal admission to hospital. Peripheral blood studies, transfusions and bone marrow aspirations can be performed in the hospital laboratory or emergency room area. The patient is spared the unnecessary expense of a hospital room during the major portion of his illness.

In this community there is intimate cooperation with pathologists who are interested in clinical medicine. This cooperation is personal and close rather than an impersonal interpretation of material such as blood smears. This type of assistance by "clinical pathologists" is most important in leukemia management. Early in 1958, a group of local physicians and scientists formed the Borgess Hospital Blood Research Group. The purpose of the group is to investigate the causes and assist in the management of disorders of the hematopoietic system. Informal meetings are held in the pathologist's office where cases are discussed, blood and bone marrow preparations are reviewed, and treatment ideas are exchanged. Any physician with a leukemic patient may present the case for discussion and assistance. Meetings are held according to care-need and not on a set schedule. Arrangements for presentation of a case are usually made with one of the pathologists. The attending physician has full responsibility for the management of his patient; he may or may not choose to follow the suggestions of the group. After the initial meeting, close cooperation is maintained between the attending doctor, the patient and the pathologist. For instance, a patient may visit the laboratory and by pre-arrangement receive a blood transfusion if his hemoglobin is below a given level; at the same time the pathologist may telephone the current laboratory results to the attending physician, who then determines when the patient should return for further laboratory tests and/or for a visit to the physician's office.

The patient retains his personal physician and in the process retains his individuality as a person rather than a case number. When complications or problems occur, the physician may bring them to the group. An individual physician may have only a small number of leukemic patients, but his active participation in the discussions and decisions of the group enable him to treat his patients with confidence.

Diagnosis

The clinical findings associated with the recognition of leukemia are well documented and will not be discussed. The classification into acute, subacute or chronic; lymphocytic, granulocytic or monocytic; leukemic, subleukemic or aleukemic; is subject to so much difference of opinion in the literature that we have rather rigidly followed the recommendations of the joint committee on nomenclature of the American Medical Association and the American Society of Clinical Pathologists.[2]

Acute Leukemia

Our routine laboratory investigation of a new leukemic patient includes a complete blood count, hematocrit, platelet count, bone marrow smears and paraffin sections of bone marrow aspirate. Most patients with acute leukemia require weekly visits to their doctor's office and the laboratory initially: these may be stretched to every two weeks as treatment becomes more stablized. The hemoglobin level has afforded the best single objective criterion of response to treatment. Reticulocyte counts are often of value as treatment progresses because, in our experience, a rise

From the Department of Medicine and Pathology, Borgess Hospital, Kalamazoo.

or fall in the reticulocyte count precedes a rise or fall in the hemoglobin by a week or two in most instances. Occasionally, the patient must return twice a week, usually for transfusions during a period of relapse, as when he has ceased to respond to one cytotoxic drug and a new drug has not yet become effective.

Chemotherapy is the treatment of choice for acute leukemia. We have achieved our best results with 6-mercaptopurine in oral dosage of about 1 mg. per pound per day; there is a lag period of seven to ten days before any reduction of leukocytes is noted; toxic side reactions have been notably scarce. Some patients may respond to methotrexate, adult dose about 5 mg. per day by mouth, after they no longer respond to 6-mercaptopurine. Methotrexate may be increased to as much as 10 mg. per day in the adult if no therapeutic response is obtained with lesser doses and if no toxic effects have occurred. Toxic reactions such as mouth ulcers, diarrhea, bone marrow depression, alopecia and skin pigmentation, are more frequent with methotrexate than with 6-mercaptopurine, and any single one of these reactions is an indication for stopping the drug.

Adrenal corticosteroids should be used only sparingly in acute leukemia and, generally speaking, should be reserved for temporary usage in emergencies. They may aggravate the clinical and hematologic picture in acute granulocytic and monocytic leukemias. Their greatest usefulness is in the acutely hemorrhagic, platelet deficient patient where they may control bleeding. They may also control the hemolytic anemia which occasionally occurs as a complication of leukemia. In patients in whom hemorrhages are a constantly recurring problem, a low daily dose of corticosteroid will sometimes obviate the necessity for platelet transfusions. Steroids in large dosage should be tried in patients with lymphocytic leukemia after they have developed resistance or have failed to respond to the cytotoxic drugs.

Chronic Leukemia

Chronic lymphocytic leukemia, without symptoms or significant anemia, and with a leukocyte count below 100,000, requires no treatment; the patient should be checked at regular intervals to intercept the advent of a more severe phase of his disease. When this occurs, the initial drug of choice is chlorambucil (Leukeran) in daily dosage of 0.1 to 0.2 mg. per kg. body weight. Patients refractory to this drug may be tried on the more toxic nitrogen mustard or triethylene melamine. Localized radiotherapy to tumor masses, enlarged lymph nodes or enlarged spleen may shrink the local tumor with ameliorization of symptoms. In advanced cases, continuously administered steroids, in low to moderate doses, are of value.

Chronic granulocytic leukemia should probably be treated as soon as it is firmly diagnosed. Early cases often present a confusing hematologic picture which is difficult to differentiate from other members of the myeloproliferative disease group. In the absence of symptoms, treatment directed toward keeping the leukocyte count below 20,000 is satisfactory. The drug of choice is Myleran, 4 to 6 mg. orally per day initially, reduced to a maintenance dose of 2 mg. several times weekly after the leukocyte count has dropped below 20,000. Some clinicians stop treatment with remission, but we believe that the psychologic impact of restarting the drug is more upsetting than the act of increasing dosage when exacerbation occurs.

Blood Transfusions

The following points have been learned from experience:

1. A practical compromise with normal hemoglobin levels, when transfusions are required to keep the hemoglobin up, is 9 to 10 grams for men and 7 to 9 grams for women. These levels in a travelling salesman and in a housewife, both with acute granulocytic leukemia, enabled them to continue with their normal duties for eighteen months before their disease became terminal. The salesman continued to make selling trips and the housewife did the work in her household of four people. Attempts to keep the hemoglobin higher were disappointing. More numerous transfusions were required and the patients showed little benefit from the higher hemoglobin levels.

2. Fresh blood, not older than a week, should be used. As blood approaches its out-dating period, the boost it gives to the patient is of shorter duration.

3. Platelet-rich blood, preferably drawn in plastic containers the same day it is given, can be of value when bleeding becomes a problem. Platelet counts are not good criteria for this type of transfusion; some patients do not bleed with platelet counts as low as 20,000 per cu. mm., while other patients bleed with counts as high as 70,000. Skin petechiae are not sufficient indication for platelet transfusion; some patients with almost constant petechiae seldom have more serious hemorrhages. Hematuria or large ecchymoses, on the other hand, should be treated promptly and will frequently clear up following a single platelet transfusion.

4. All leukemic patients, as candidates for repeated transfusions, should have soluble corticosteroid added to the blood bottle before the transfusion. We most frequently used hydrocortisone sodium succinate* in 10 to 100 mg. dose or methyl prednisolone sodium succinate† in 4 to 40 mg. dose. These effectively prevented the transfusion reactions which so frequently occurred, usually after the tenth transfusion, in the days before we used corticosteroid in this way.

5. As transfusional therapy progresses, the patient's veins become more important assets to him; every effort should be made to keep these in good repair. The total number of venepunctures should be kept low; blood counts and hemoglobin determinations should be done on skin puncture blood rather than venous blood. Where feasible, blood for cross-matching should be stored in sterile condition in the refrigerator from transfusion to transfusion, so that a separate venepuncture to obtain serum for cross-matching be not necessary. Venepuncture should be performed only after thorough skin sterilization by an experienced person who is aware of the importance of maintaining venous integrity and avoiding local infections. A preventable staphylococcal skin infection and localized phlebitis occurred as a result of careless venepuncture in one of our child patients; if not only rendered a vein unusable but required over six months' treatment to control the infection.

Infections

Leukemic patients are susceptible to infections of all kinds and, when infected, tend to be resistive to treatment. When infection occurs, every effort should be made to secure a culture and antibiotic sensitivity before treatment is begun. The virtue of this lies in the avoidance of wide spectrum antibiotics when a narrower spectrum antibiotic, such as penicillin, will suffice. The wide spectrum antibiotics are well known potential producers of fungus infections. One of our patients ran a nail into her foot and received wide spectrum antibiotics; she developed persistent laryngitis and bronchitis due to Candida albicans infection; at autopsy, Candida albicans was found in liver abscesses. Another patient developed diffuse, ulcerative enteritis; fungi were identified in autopsy sections of the small intestine.

Concerning the use of prophylactic antibiotic therapy, we think that in most instances this is not justified; that there should be prompt, energetic treatment of infections when they occur. In one patient with acute leukemia, however, prophylactic penicillin evidently prevented gingival and respiratory infections for more than a year.

*Solu-Cortef, Upjohn Company.

†Solu-Medrol, supplied free by the Upjohn Co., Kalamazoo, Michigan.

Summary and Conclusions

A method for the office treatment of leukemia is described. The authors believe that this mode of treatment causes the least possible dislocation to the family and business life of the patient; that it is economical for the patient and the physician; that it preserves the patient's individuality and morale. We quote two of Grigg's dicta of palliation[3] to which we strongly subscribe, namely "Only one physician shall be in charge of the patient. Consultation may be required, but the patient's body and mind must be in the hands of one physician," and "The family finances shall be considered in connection with the cost of medical, surgical, radiological, hospital and nursing care."

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Estrogen and Heart Attacks

Women have a built-in protection against heart attacks, according to Park Willis, III, M.D., associate professor of internal medicine at The University of Michigan Medical Center. Estrogen, the female sex hormone, prevents the occurrence of arteriosclerosis, or coronary artery hardening, which is often a contributing cause of coronary disturbances. The reason why estrogen acts as a deterrent to heart attacks has not yet been confirmed.

Estrogen is developed in the ovaries and is present throughout most of a young woman's life. This protective agent diminishes after the menopause. Women then may begin developing conditions which lead to arterial narrowing, such as the deposition of cholesterol. By comparison, men become susceptible some twenty to thirty years earlier.

There has been some treatment of coronary diseases using estrogens to help prevent attacks. Results seem to be good.

Surgical Significance of Subarachnoid Hemorrhage

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THE INTRODUCTION of cerebral angiography has changed the entire concept of subarachnoid hemorrhage. The time-honored diagnosis of "spontaneous subarachnoid hemorrhage" is no longer acceptable since it is now frequently possible to establish a specific etiology by means of cerebral angiography. This syndrome is always serious, but its prognosis is to a considerable extent dependent upon the specific etiology. A recent review by Mc Kissock[2] of 455 patients with subarachnoid hemorrhage showed that 57 per cent, or over half the series, was due to intracranial aneurysm. Unexplained hemorrhage accounted for 26 per cent, and cerebral or cerebellar hemorrhage for 10 per cent of this series. Intracranial angioma was found in only 6 per cent. The importance of diagnosis is evident from a consideration of the death rate as exemplified by the above series. Despite the high total mortality of 38 per cent, great variation was noted in the different etiologic groups. Whereas 70 per cent and 46 per cent mortality was noted for cerebral hemorrhage and aneurysm respectively, only 14 per cent mortality occurred in the unexplained group. It is generally stated that the overall mortality in untreated intracranial aneurysm is anywhere from 30 per cent to 60 per cent. Since aneurysm is the only cause in which specific surgical treatment is of proven value, and since this is also one of the major causes of subarachnoid hemorrhage, establishment of etiology is of unquestioned importance. This ultimately hinges upon radiographic demonstration of the cerebral vasculature by means of cerebral angiography. Logical treatment can be planned only by demonstration of the lesion or of normal vasculature. Angiography is therefore of vital importance in both treatment and prognosis.

Patients with subarachnoid hemorrhage are usually first seen by their personal physicians (in most cases a generalist or an internist). Excluding cases of obvious trauma, the hemorrhage itself is usually the first occurrence even when due to aneurysm. There is usually nothing clinically apparent by which aneurysm can be differentiated from other causes. Occasional exceptions to this are the occurrence of ocular palsies (particularly the oculomotor nerve), pain in the ophthalmic division of the trigeminal nerve, and rarely the history of prior episodes of typical headache. The presence of known hypertension or advanced age of the patient makes the diagnosis of aneurysm somewhat less likely but does not preclude its presence. The usual case is of abrupt onset with severe sudden headache, often suboccipital, occasionally generalized in location, frequently extending into the neck, shoulders, and even down the back and backs of the legs. There may be nausea, vomiting, dizziness, even collapse with loss of consciousness. There may be signs of brain damage such as hemiplegia or hemiparesis. Occasionally the history is less obvious, with several days of rather severe headache, nausea, vomiting, low-grade fever, and stiff neck, which may be diagnosed erroneously as "flu," "URI," or even poliomyelitis. Meningeal signs, such as stiff neck, Kernig's and Brudzinski's signs, fever, and photophobia are sometimes delayed in their appearance and may develop two or three days after the hemorrhage. If there is any question of the possibility of subarachnoid hemorrhage, a spinal puncture should be done. The presence of blood, or xanthochromia in cases in which the puncture is delayed for a few days, usually confirms the diagnosis of subarachnoid hemorrhage. The spinal fluid pressure will often be elevated. The demonstration of blood in the spinal fluid will then lead to adequate investigation. It is trite but true that a high index of suspicion on the part of the physician is necessary in order to detect cases of aneurysm and by timely and appropriate therapy offer a substantial number of patients a better outlook. In the majority, ruptured aneurysm is an explosive disease with a high risk to life with the initial hemorrhage. Many will die without any chance of treatment. Surgery, however, now can offer a much better prognosis to those who survive the initial hemorrhage. The most fortunate are those who survive the original hemorrhage with no loss of neurologic function and in whom angiography is performed and definitive surgical treatment carried out. Those in whom treatment is not carried out live under a constant threat of recurrent hemorrhage with its attendant risks of brain damage and death. While the risks of surgery are substantial,

the risk of recurrent hemorrhage is far greater. The aim of surgery is prevention of another rupture. Surgery cannot undo neurologic damage already present. Except for evacuation of an occasional intracerebral hematoma, the surgery of intracranial aneurysm is entirely preventive. It is perhaps of additional importance to save these patients because of the high incidence of this disorder in the young and early middle-aged adult. The occasional patient with hemorrhage due to a cerebral angioma may also be offered a better outlook for life with appropriate surgery but many of these are essentially inoperable and the prognosis untreated is considerably better than that of the untreated aneurysm.

Discussion

The following group of cases is presented as a fairly representative experience with surgically treated intracranial aneurysms occurring in a middle sized Michigan city. The series is much too small to permit any statistical analysis or upon which to dogmatize. The first patient was operated upon in 1954, and only two more operations occurred in the following year; all the rest were operated upon subsequently. Because of the small size of the series, no attempt has been made to summarize many additional cases of fatal subarachnoid hemorrhage in which surgery could not be offered. Since October, 1956, definitive neurosurgical treatment has been carried out in seventeen cases of subarachnoid hemorrhage of which two were due to angiomas and fifteen to intracranial aneurysm. The diagnosis in all patients was made by cerebral angiography. In all but one patient the initial symptoms was due to subarachnoid hemorrhage. Of the sixteen patients with subarachnoid hemorrhage, spinal puncture revealed bloody or xanthochromic fluid in all. The spinal puncture was performed in all these patients by the referring physicians who thus were able to establish a definite diagnosis of subarachnoid hemorrhage. The anatomical distribution of the fifteen cases of aneurysm is shown in Table I.

There were two surgical fatalities in the fifteen patients, both occurring in aneurysms of the anterior communicating artery. In one of these patients erroneous interpretation of the angiogram led the surgeon to believe that the aneurysm possessed a neck adequate for ligation. At surgery it was found to be a sessile structure involving the entire length of the anterior communicating artery and both anterior cerebral arteries as well. Treatment was confined to wrapping the structure with muscle. The other fatality was a huge aneurysm in which an attempted trapping resulted in thrombosis of the entire left anterior cerebral artery. In the thirteen remaining patients, direct surgical attack was carried out in twelve, the other patient being subjected to a trapping procedure. No subsequent hemorrhages have thus far occurred in the thirteen who survived surgery, the follow-up covering two months to five and one-half years. Of the thirteen surviving aneurysm patients and the two patients with angiomas, one sustained a hemiplegia as a direct consequence of surgery. One of the aneurysm patients and one patient with angioma had preoperative hemiplegia as a result of the initial hemorrhage. One aneurysm patient revealed no aneurysm on his initial angiography, and six weeks later sustained another hemorrhage. Angiography was then repeated with demonstration of an aneurysm following which surgery was carried out. Mc Kissock[2] found twenty-two aneurysms at autopsy of thirty-four patients who had shown negative angiograms. No completely satisfactory explanation for this occurrence has been forthcoming, but it would seem possible that initial thrombosis within the sac followed by softening at a later time could explain the lack of demonstration of the aneurysm. It is also possible that angiospasm may have played a part in preventing adequate filling of the sac with contrast medium. It is to be noted that cervical carotid ligation alone was not carried out in any patient of this series. It is this writer's belief that occlusion of the carotid artery in the neck is inadequate treatment for the majority of intracranial aneurysms save for the infraclinoid group and large sessile aneurysms of the supraclinoid portion of the internal carotid artery. Despite the lower initial mortality from cervical ligation, the reported occurrence of recurrent hemorrhage after this procedure suggests that direct surgical attack with ligation or, infrequently, trapping, is preferable. In general, aneurysms of the infraclinoid portions of the internal carotid artery are not approachable and can only be treated by cervical carotid ligation. The direct surgical attack, where feasible, offers the best chance for complete and lasting exclusion of the aneurysmal sac from the circulation. Even in cases where the angiogram fails to reveal clear-cut demonstration of a neck, care-

TABLE I. DISTRIBUTION OF ANEURYSMS IN FIFTEEN PATIENTS

Internal carotid (including bifurcation)	8
Middle cerebral	3
Anterior cerebral (both proximal)	2
Anterior communicating	2

ful dissection of the aneurysm will result in a neck sufficient to tolerate a clip or ligature. Wrapping with muscle, with or without Gelfoam, Oxycel, or other materials, is sometimes performed in situations where neither ligation of the neck of the aneurysm nor trapping can safely be carried out. This procedure is probably ineffective in preventing recurrent hemorrhage but it serves the purpose of making the surgeon feel better. The admittedly limited experience of the author thus far nevertheless strengthens the belief that the direct surgical attack with particular attention to painstaking dissection of the aneurysm offers the patient the best chance, in the majority of aneurysm cases, for permanent successful protection from subsequent hemorrhage with its attendant risks.

Because of the importance of prompt recognition of the existence of an intracranial aneurysm, two of this series warrant further discussion. The first case is that of a forty-two-year-old man who came to our attention after three days of headache, stiff neck, back and posterior thigh pain, photophobia, and low-grade fever. This occurred in mid-autumn during a fairly heavy polio season. The initial diagnosis was poliomyelitis, but because a hospital regulation required immediate spinal puncture on all polio suspects prior to admission, the finding of bloody spinal fluid led to the appropriate diagnosis. Cerebral angiography then showed a saccular aneurysm of the internal carotid artery just proximal to the bifurcation. This was successfully clipped and an uneventful recovery ensued. The second case is that of a forty-five-year-old woman who developed a ptosis of her right eyelid. She then developed a dilated right pupil and because her symptoms progressed over a period of three weeks, she consulted an ophthalmologist who referred her for neuro-surgical evaluation. The patient showed no signs of subarachnoid hemorrhage and her spinal fluid revealed no blood nor other abnormality. Cerebral angiography revealed a large aneurysm at the bifurcation of the right internal carotid artery which was successfully ligated. She had a transient left hemiparesis and a slow improvement in her oculomotor nerve palsy. This was the only case in the present series without frank rupture of the aneurysm. In all the other cases, prompt suspicion of subarachnoid hemorrhage and spinal puncture by the referring physicians led to correct diagnosis and appropriate treatment.

The management of subarachnoid hemorrhage can be logically planned only by knowledge of the etiology. That due to aneurysm or angioma must be considered to be basically surgical unless proven inoperable by either direct or indirect means. The conservative, or medical, treatment of such patients consists essentially of maintenance at as nearly a basal level of living as possible. Essentially this means strict confinement to bed, avoidance of all physical exertion and emotional strain, mild sedation for restlessness, avoidance of narcotic drugs, and adequate management of bowel movements, particularly avoiding straining when on the bedpan. Many cases will completely recover from the immediate effects of the initial episode of hemorrhage on such a regime. This, however, is no treatment at all for the subsequent secondary hemorrhage which most probably will occur. The danger lies chiefly in the fact that the time of occurrence of the next hemorrhage cannot be predicted with any degree of accuracy. It is widely accepted that secondary hemorrhage from an intracranial aneurysm is particularly prone to occur within two to three weeks after the initial hemorrhage. This fact lends further urgency to the need for prompt recognition and definitive treatment. Norlen and Olivecrona[3] state that intracranial attack on ruptured aneurysms carried out within the first two to three weeks of the hemorrhage carries too high a surgical mortality and are thus inclined to defer major attack until a quiescent period of three weeks after the hemorrhage. In waiting for this optimal time, however, patients are going to be lost to recurrent hemorrhage. Since at present there are no completely reliable statistics from which conclusions can be drawn as to the superiority of early or delayed surgery, the decision regarding the time of operation is somewhat subject to the surgeon's philosophy. Early angiography, however, carries little risk and permits establishment of a definite diagnosis. The demonstration of a normal cerebral vasculature immediately removes surgery from consideration. Occasionally there is demonstrated by angiography an intracerebral hematoma which requires early removal. Early angiography, therefore, is important regardless of the demonstration of an aneurysm as the cause for the subarachnoid hemorrhage. Bilateral angiography should be carried out regardless of the suspected side of the presumptive lesion. Occasionally multiple aneurysms are disclosed. Hamby[1] reports their occurrence as 9.3 per cent. Only one such case has been personally encountered by the author and is not included in the present discussion because of its essential inoperability.

The gradual improvement in surgical techniques has led to increasingly widespread attack on aneurysms in recent years. All of the reported patients in this

series, save for the first two, were operated upon under endotracheal anesthesia with induced hypotension using intravenous Arfonad. In addition to reducing the normal blood loss of any standard craniotomy, induced hypotension renders more easily manageable the occasional rupture of the aneurysm during surgery, always a formidable complication. The employment of hypothermia is doubtless of value in reducing the oxygen requirements of the brain so that temporary occlusion of major vessels can be carried out when necessary. This technique has not yet been available at the author's hospitals, but it is hoped that it soon will be. More recently the use of intravenous urea has occasionally been employed where exposure has been a problem. The possible postoperative risks of delayed thrombosis and angiospasm have been routinely dealt with by the use of inhalations of carbon dioxide and intramuscular injections of papaverine. The one case of infraclinoid aneurysm in which direct surgical attack could not be carried out was treated by chronic occlusion of the internal carotid artery in the neck using a Salibi clamp. This was later removed and the compressed arterial segment excised and ligated. Still later a craniotomy was performed and the internal carotid ligated distal to the aneurysm. In one case of aneurysm of the anterior communicating artery and one middle cerebral aneurysm, neither of which could be ligated nor trapped without risk of irreparable hemiplegia, wrapping of the aneurysm with muscle was carried out.

The two cases of cerebral angioma both involved the distal portion of the right anterior cerebral artery. In one patient a left hemiparesis had occurred as a result of the original hemorrhage. Both were successfully demonstrated by angiography and were totally excised at craniotomy without complication or further neurologic deficit. A single patient was encountered in whom angiography showed a massive arteriovenous malformation involving almost the entire left (dominant) hemisphere and was not considered operable.

Summary

The surgical significance of subarachnoid hemorrhage has been discussed with particular attention to demonstration of specific etiology and appropriate treatment. Intracranial aneurysm constitutes a significant proportion of all subarachnoid hemorrhage and, if untreated, carries a dangerously high mortality. Direct surgical attack will save many of these patients but cannot be carried out without prompt recognition of the initial hemorrhage which is most usually first seen by the patient's personal physician. This is most readily accomplished by spinal puncture whenever such a possibility is considered. A series of fifteen intracranial aneurysms and two cerebral angiomas treated by direct attack, trapping, and in two cases by muscle wrapping has been presented. There were two operative deaths, both occurring in aneurysms of the anterior communicating artery. The series has been presented as a basis for discussion and as representative of the cases encountered in a community of this size rather than for statistical analysis.

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Heterohemoantibodies in Inbred Mice

Inbred mice of strains C57BL, C3H, DBA, BALB/c, and AKR bearing a variety of transplanted lymphomas, carcinomas, and sarcomas were given intraperitoneal injections of sheep or chicken red cells. Significant depression of hemolysin titers was observed in all but one group of experiments on animals with transplanted leukemias and lymphomas; this depression was less regular for agglutinin titers.

Similar depressions of immune responses to red cell antigens were demonstrated in mice with transplanted carcinomas and sarcomas given single large doses of the antigen; in mice given multiple injections of smaller amounts of red cells, differences in antibody levels between tumor-free and tumor-bearing mice were either absent or less pronounced.

Determinations of natural agglutinins for sheep red cells before and after tumor inoculation showed only exceptionally significant changes in antibody titers. These observations were compared with those reported in other investigations on related subjects and discussed with regard to possible mechanisms by means of which tumors interfere with immune responses and their potential role in the tumor-host relationship.—Kurt Stern, M.D. and Israel Davidsohn, M.D., J. Nat. Cancer Inst., 24:1319-1339, 1960.

Nursing Goals in a Psychiatric Unit Within a General Hospital

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A PSYCHIATRIC unit within the general hospital is not a new discovery. As early as the seventeenth and eighteenth centuries general hospitals were treating psychiatric patients. However, shortly after admitting these patients it was realized that little could be done for them so in time these attempts were abandoned.

Now the trend is reversed, and we witness a reintegration of psychiatry in the program of the general hospital. It is being returned to its rightful place alongside such services as medicine and surgery in the general hospital.

One contributing factor toward the establishment of these units is the advance in chemotherapy. As a result, these comfortable patients are more easily managed and readily accepted within the realms of a general hospital.

Still another factor is the increased interest in mental health by the general public and their willingness to support such programs.

This response for improved care for psychiatric patients is indeed encouraging. There are over 600 general hospitals in the United States and Canada that accept and care for mentally ill patients.

The purpose of the psychiatric unit in a general hospital is to provide early and intensive treatment for emotionally disturbed patients. I say emotionally disturbed because these patients are not always psychotic, but frequently neurotic. A series of precipitating factors, causing temporary upsets, bring many patients to the hospital under the care of a psychiatrist, and consequently to the psychiatric unit. It is a known fact that the most desperate health need today is the need for facilities for acute emotional illness. The general hospital, to be worthy of its name, should be prepared to treat every type of illness and therefore should provide facilities for care and treatment of psychotic and neurotic patients. Attention must be concentrated on what can be done for patients, diagnostically and therapeutically, not just on providing a certain number of beds.

Dr. George Masters has said that "the acute General Hospital is the front line in the treatment of neuro-psychiatric diseases."[1] Thus in the fulfillment of these needs, the creation of psychiatric care in general hospitals is fruitful to the medical profession and the patient himself; the hospital becomes general in reality, when it takes care of the whole person. This unit is specifically designed for the care of those who have mental difficulties or tendencies toward them. Early recognition and preventive treatment may save years of unnecessary hospitalization.

The position of the psychiatric unit in a general hospital is within the medical department, a place where psychiatry has always belonged, but from which it has long been estranged. A psychiatric unit should not be an extraneous element engrafted on the periphery of a general hospital, but rather should be an integral part of the total hospital program. To repeat: The aim of this unit is the early diagnosis and treatment resulting in the recovery of the mentally ill patient. Psychiatric services, being included in the activities of a general hospital, have made for better understanding of mental disorders by the Physicians on the other services. The presence of the mentally ill patient in a general hospital tends to make the doctors, nurses, and the public as a whole, accept these patients as being ill. Likewise, the unit is advantageous to the medical and nursing students in clinical teaching. It emphasizes that psychiatry should be taught to students not because of the percentage of patients who are psychotic, but because the large per-

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centage of the symptoms presented by all patients will require understanding in this field.

The psychiatric unit, as a part of the general hospital, lies in the midst of the community from which its patients come. The noise and activity of community living are just beyond its doors and our desire is to return the patient as quickly as possible to take his place in its daily living. A typical psychiatric unit can accommodate the acute emergencies of the community as well as the more comfortable patients. Contact with the relatives of the patients helps to strengthen wholesome attitudes towards the emotional illness of their member. The Gray Lady Volunteer Workers not only render valuable service to the department, but also act as a liaison to the community. Through the relatives of the patients and the volunteers, we have an added opportunity to educate the public in the basic concepts of mental illness.

The psychiatric unit of Borgess Hospital was opened in July, 1957, and was gradually activated. It is referred to as Two Hundred North, just as other services are Medical, Two Hundred West, Orthopedics, Three Hundred North. Twelve psychiatrists in private practice avail themselves of this unit which is in the new wing of the hospital and will accommodate twenty-nine patients. The rooms, except for one private room, are all semi-private. The two small seclusion rooms are also single rooms which are separated from the others by an inside corridor. Oxygen is piped into each room and each is equipped with the intercommunication system. A Doctor's office, treatment room, kitchen, utility rooms, waiting room, and one large room used both for a dining room and occupational therapy room are provided. Also, there is a hydrotherapy room with one large sedative tub. The unit is situated to provide two semi-private rooms outside the locked area, and within it, the center door can be closed at the nurses' station to make two separate sections; one for the more disturbed patients and one for the more comfortable patients.

The type of psychiatric service that has developed is in keeping with "the community concept" of the large general hospital. After referral by personal physicians or other professional sources to a psychiatrist, this service offers quick hospitalization, early diagnosis, and prompt treatment of the varied types of psychiatric illnesses. Admissions to Borgess Hospital stem not only from the metropolitan area, but also from distant points of southwestern Michigan. As in other parts of the general hospital, admissions are voluntary, but committed patients are also accepted for as long as a three-month period, this being the maximum length of time our patients may remain. This insures the availability of rooms for the acute psychiatric emergencies. Alcoholic patients are admitted and cared for in the psychiatric unit if the attending medical doctor sees the need for psychiatric consultation. Among the disciplines employed in the treatment of these patients are chemotherapy, electroconvulsive therapy, psychotherapy, occupational and recreational therapy, work and bibliotherapy, plus emphasis on interpersonal relationships in this therapeutic milieu. The patients are taught sewing of every type, many crafts, including chair caning, and they make decorations and favors for the entire hospital for the holidays.

The therapeutic goal of personality integration includes the recognition of spiritual needs as well as those of body and mind. To assist with these needs, the Chaplain at Borgess Hospital is available for consultation and our patients are likewise permitted to visit the chapel located in another section of the building. The clergy of other denominations from the city visit their members regularly while they are patients in this ward.

An inservice educational program consists of weekly lectures from different staff psychiatrists with either a presentation of a case study or a discussion of some aspect of psychiatry. Psychiatric movies are shown periodically and made available to the complete general hospital staff as well as our unit. Staff conferences are also conducted weekly or as often as the need arises, wherein phases of psychiatric nursing are reviewed including medications, professional ethics, problems in the care of patients, and the allowance of time for the free ventilation of feelings and the offering of suggestions.

The ratio of trained personnel per patient fluctuates according to the census. The day shift with a full unit would vary around a 1 to 6 ratio, the evening, a 1 to 10 ratio, and on nights a 1 to 14 ratio. The personnel has shown a decided interest in psychiatry and some spend off-duty time taking patients to the recovery meetings.

Provisions for the day hospital can also be utilized on this unit. It consists of the patient arriving at 8:00 A.M. and spending the day on the ward, then going home in the evening. During this time, the patient participates in all available facilities and electric shock treatment, if indicated. In contrast to this, the night hospital is effective when the patient leaves for work in the morning and returns at night.

For the period beginning July 15, 1957, and ending

TABLE I. MENTAL DISORDERS

Acute Brain Disorders	
Acute Brain Syndrome Associated with Intoxication	
A. Alcohol Intoxication	19
B. Drug or Poison Intoxication	3
Acute Brain Syndrome Associated with Intracranial Neoplasm.	2
Chronic Brain Disorders	
Chronic Brain Syndrome Associated with Central Nervous System Syphilis With Psychotic Reaction	2
Chronic Brain Syndrome Associated with Intoxication with Psychotic Reaction	5
Psychotic Disorders	
Affective Reactions	71
Manic Depressive Reaction, Manic Type	3
Manic Depressive Reaction, Depressed Type	4
Manic Depressive Reaction, other	1
Psychotic Depressive Reaction	8
Schizophrenic Reactions	
Catatonic Type	6
Paranoid Type	9
Acute Undifferentiated Type	20
Schizo-affective Type	18
Residual Type	7
Psychoneurotic Reactions	
Anxiety Reaction	19
Conversion Reaction	4
Obsessive Compulsive Reaction	6
Psychoneurotic Reaction	19

July 15, 1959, there were 596 patients admitted for psychiatric care, a total of 12,202 patient days with the average stay per patient twenty-one days. There was a total of 1,737 E.C.T. during this period, an average of 72.4 per month. Children as young as eight years of age have been cared for in the unit, as well as people up to ninety years of age; the average age is 41.85. It is of interest to note that patients have represented nearly every profession. Of these patients, 9.56 per cent were transferred to other institutions for more definitive treatment.

The types of patients differ greatly as shown in Table I.

Various other reactions are found in smaller groups.

From our experiences with the small unit in a general hospital, we can see its great value and benefit to the community. It is designed primarily for the short-term patient. It supplies early and intensive treatment, hopefully preventing more drastic illness. It has awakened the community to the realization that physical and mental illness should merit an equal stigma. The patient's family is enlightened and we hope spreads the accepting attitude that will decrease the anxieties, fears and worries of the hospitalized mental patients. The psychosomatic influence is stressed more and more today. Nursing the whole patient includes every factor affecting him. Having psychiatry back in its place in the general hospital is more than ever giving the patient every advantage of complete care.

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1521 Gull Road

Intensive Service Unit

A circular nurses' unit, with the rooms surrounding the central nurses' station, makes patients happier and saves time and steps for nurses, according to a study recently made at Rochester, Minnesota, by the Methodist Hospital. This information is the subject of a monograph by the American Hospital Association.

A circular unit was constructed so the nurses' station is encircled by a corridor around which there are twelve private rooms for patients. Clear glass panels in the upper halves of the double doors of each room allow nurses to observe patients from the nurses' station and the corridor. Each patient can see the nurses but not the patients in other rooms.

This grouping was checked against rectangular units with the same number of staff, of nurses, aids, patients, and similar illnesses. The universal opinion was in favor of the circular set-up. The patients felt more content, and the staff number was reduced by two.

GUEST EDITORIAL

Historical High-Spots of the Kalamazoo Academy of Medicine

Picture in your mind's eye the Kalamazoo of 1878, the year the Kalamazoo Academy of Medicine was founded. Kalamazoo at that time was proud of being the largest village in the United States, with a population of 12,000. More than 100 miles of plank sidewalk had been laid. As a matter of fact, it was said that "with addition of street railways, solid sidewalks in place of wood, and a new court house worthy of its surroundings, Kalamazoo Village would be as near perfection as any provincial town in the West."

Many attempts had been made to have a Medical Society in Kalamazoo, but all such attempts had been unsuccessful, primarily because they took in too much territory. The Kalamazoo District Medical and Surgical Association was organized February 27, 1878, with Dr. H. O. Hitchcock as President, and was incorporated in 1883 as the Kalamazoo Academy of Medicine. Twenty members comprised this organization, fifteen from Kalamazoo and one each from Vicksburg, Alamo, Galesburg, Climax and Richland.

* * *

THE ORIGINAL RECORDS of the Academy state that "any legally qualified physician or surgeon who does not subscribe to, nor practice according to any exclusive dogma of medical practice, may become a member of this Academy XXXX." Exactly what was meant by a "legally qualified physician" is not known, since it is a matter of history that prior to 1883 there was no legislative restriction to the practice of medicine in Michigan. It is interesting to note that an initiation fee of $2.00 was required in joining the Academy, and that the annual dues "shall be one dollar each, or such a sum, not exceeding three dollars, as shall be ordered at the annual meeting."

On July 29, 1884, it was decided that "the seal of the Academy shall consist of a representation of a compound microscope and an open book leaning against the same, resting upon the year of our incorporation, in Roman numerals, all being surrounded by a band bearing the words, Kalamazoo Academy of Medicine."

The second President of the Academy was Dr. E. B. Dunning and the third President was Dr. Edwin H. VanDeusen, who then lived in Otsego.

On January 31, 1893, Dr. and Mrs. VanDeusen presented to the Kalamazoo Board of Education, a sum of $50,000 for the erection of a Public Library building, stipulating that a "commodious room with a small office attached, be permanently set apart for the exclusive use of the Kalamazoo Academy of Medicine." On May 29, 1893, meeting for the first time in the Public Library building, the Kalamazoo Academy of Medicine accepted from Dr. and Mrs. Van Deusen "with profoundly grateful thanks, their noble gift to us of assembly and committee rooms, fully and elegantly furnished and equipped for use."

The Academy continued to use this meeting place until 1957 when the building was demolished. On the same site, in 1959, a new Public Library was completed. The new auditorium on the second

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floor is appropriately named "The VanDeusen Auditorium" and, until 1969, the Academy will be privileged to use this auditorium without charge.

* * *

TO READ THE MINUTES of the Academy meetings throughout the years is to read medical history in a local setting. I found that new drugs, instruments and procedures were reported locally at the same time or soon after their discovery. The thoughts, work and beliefs of many really great local M.D.s have been recorded in the records of the Academy. One of these, Dr. August W. Crane, was elected a member of the Kalamazoo Academy on November 13, 1894, and gave his first paper entitled "New Chapters on the Biology of the Blood" at the Academy Meeting in July, 1897. Dr. Crane was a pioneer in the development of the x-ray as applied to Medicine. He won high honor for himself and brought prestige to the Kalamazoo Academy of Medicine and the City of Kalamazoo. Each February, for the past 20 years, the "Crane Memorial Lecture" has become traditional in Academy programs.

In 1900, at which time the Academy listed 46 members, meetings were held at 2:00 p.m. in the Academy rooms. At one of the meetings during that year, the "crowded conditions of the hospitals" was discussed, but obviously the problem was not settled, since it still exists today.

* * *

THE RECORDS OF the Academy show that in 1902 the usual fee for a day house call was $1.50, a night house call was a dollar more and office calls were $.75 and up. During that same year, at a special meeting on July 1, 1902, the Academy officially associated itself with the Michigan (State) Medical Society.

In 1909, when the Kalamazoo Academy of Medicine embraced Kalamazoo, Allegan, and Van Buren Counties, a new constitution was written. Annual dues at that time were $3.50.

The first record I could find of a combined meeting of the Kalamazoo doctors and their wives was on August 25, 1914. This meeting was held at Gull Lake and the ladies prepared the program. Mrs. O. H. Clark gave a paper on "Mothers as Suffragists"; Mrs Bartlett Crane gave a paper on "Community Hygiene"; and Dr. Bertha VanHoesen, Chicago, gave a paper on "Twilight Anesthesia." The program and the day in general were considered a complete success. During more recent years, combined meetings have traditionally been held in June and at Christmas time.

By 1913 the annual dues were increased to $4.00 for local members and $5.00 for non-resident members. During this period, regular meetings of the Academy were held in Allegan, South Haven, and Otsego, as well as Kalamazoo.

As the years passed, the attendance at Academy meetings gradually increased. The first evidence that the Academy rooms were too small is noted in the record of March, 1915, when the meeting was held in the Auditorium of the Burdick House. At this meeting Dr. William Mayo spoke on "Some General Considerations Which Influence the Advisability of Surgical Treatment," a meeting which attracted 185 people.

* * *

WAR CLOUDS WERE ALREADY gathering over Europe during these years and the Academy of Medicine (still embracing Kalamazoo, Allegan and Van Buren Counties) supplied 27 doctors during World War I. Twelve of these men who wore the caduceus on their uniforms were from Kalamazoo and fortunately there were no casualties.

It was my good fortune while a student in 1919, to obtain part-time employment at the Colman Drug Co. This store was frequented by most of the physicians of Kalamazoo and surrounding territory. I recall the abrupt manner of Dr. Paul T. Butler. I remember, too, the ruddy complexion of Dr. Dan Eaton, and the prematurely gray hair of Dr. John T. Burns when he returned from service in World War I. I remember Dr. Bartholomew coming in from Martin. The bellowing voice of Dr. Don P. Osborne, I was told, was only a thin veneer covering a heart of gold. I remember Dr. Arthur E. West, with his neatly trimmed beard and his fine physique. I remember, too, when a tall thin young medic came to Kalamazoo to start practice—Dr. Reader J. Hubbell had the respect and admiration of the entire membership of the Kalamazoo Academy of Medicine long before he became President of the Michigan State Medical Society. Dr. Hubbell was the fifth Kalamazoo man named as President of our State Society. In 1871 Dr. H. O. Hitchcock was President and in 1877 Dr. Foster Pratt was President for the State Society. Both of these men were charter members of the Kalamazoo Academy of Medicine. Dr. Herman Ostrander in 1907 and Dr. John B. Jackson in 1926, were also Presidents of the Michigan State Medical Society.

Evening meetings of the Academy were tried in February, 1920, but were not routine until October, 1922. On September 25, 1923, it was decided to have only one Academy Meeting a month instead of two.

* * *

IN 1927, THROUGH the efforts of Dr. Caroline Bartlett Crane, the Woman's Auxiliary to the Kalamazoo Academy of Medicine was organized, with 35 charter members. The objectives of the Auxiliary have been carried out to the fullest extent during the past 33 years and the Academy is, and should be, grateful to the Auxiliary for its many successful accomplishments.

That year of 1927, the Academy numbered 120 active and 8 associate members. The Secretary gave

a résumé of the year in his annual report published in the December Bulletin, and I quote "the past year has been an unusually prosperous and happy one for the Kalamazoo Academy of Medicine. The spirit of harmony has prevailed and it is hoped that the spirit may be fostered throughout the years to come. Live speakers and excellent programs have been an irresistible drawing card contributing their full share to the excellent attendance record for the year. The angel of death has passed us by; none have moved from our midst; and only one of our former members has deemed the society unworthy of the payment of dues."

All of us vividly recall Pearl Harbor Day, December 7, 1941. The ensuing events resulted in the donning of uniforms by 49 Academy members (which no longer included Van Buren and Allegan Counties) during World War II. There were 2 local casualties, Dr. Charles E. Osborne of Vicksburg and Dr. Isaac N. LaVictoire of the Kalamazoo State Hospital. Most of the local medics had returned by June, 1946, at which time there was a total of 152 physicians working or residing in Kalamazoo. Annual dues of $52.00 caused a few complaints which were completely ignored by the Treasurer. The dues were increased to $67.00 by 1949 and are now $140.00 annually.

* * *

IT WAS FASCINATING reading and thumbing through the old records of the Academy. I am grateful for the legibility of these records as they were written in long hand over many years. It has been a problem to choose what was most important as the years progressed, so that this paper might not become too lengthy. In a few instances it was necessary to choose which authority was most likely to be correct, when conflicting reports were made. I might tell you, for instance, that Dr. Alvin H. Rockwell was the first Kalamazoo doctor to drive an automobile. This is so reported in the "In Memoriam" for Dr. Rockwell, as published in the Academy Bulletin of June 17, 1941. In his "medical memoirs," on page 85, Dr. Rush McNair states that Dr. Edward Ames was the first Kalamazoo doctor to drive a car. I have no way of knowing which report is the more accurate.

I feel certain that the Kalamazoo Academy of Medicine will continue to thrive in the future and that the members of the Academy will continue to uphold the ideals upon which our organization was founded 82 years ago.

G. H. Rigterink, M.D.

* * *

Our thanks go to Robert D. Warnke, M.D., Secretary of the Kalamazoo Academy of Medicine, for his splendid co-operation and assistance in securing the very fine collection of papers appearing in this issue which is dedicated to the Kalamazoo Academy of Medicine.

MMS Requested Rate Increase Again Reduced

It was reported editorially in the July issue of The Journal that Blue Shield had asked the State Insurance Commissioner for a premium rate increase of 19½ per cent. The Board had considered this decision over a long period of time and was finally forced to make the request in spite of political and other compelling considerations. The utilization of the plans, the unexpectedly large increase in cases coming to the doctors and hospitals, and the constantly increasing costs in caring for these cases were using up not only the reserves of Michigan Medical Service, but threatening the money needed for current expenses. These two items plus an actuarial misconception of the costs: the rates established had been intended to cover at least two years but in the first year of actual usage proved inadequate. In the July issue, we published information and letters to our membership explaining the situation and announcing the appeal to the Insurance Commissioner.

* * *

HEARINGS WERE HELD in Grand Rapids and in Detroit which our MSMS officers attended and in which they testified giving details and information, and answering questions. The Commissioner took the matter under advisement until June 15 when he announced his decision. He disapproved building up the reserve as much as actuaries had advised. He allowed an 11.5 per cent increase instead of 19.5 per cent and announced that this was to hold for one year—saying that this would give Blue Shield a breathing period in which to develop a more stable rate and benefit structure.

Mr. Blackford said, "There is no use attempting to gloss over the precarious financial situation of Blue Shield—our choice was between approving an adjustment in rates or permitting the program to go down the drain. We could not let that happen. I am sure the majority of subscribers will approve."

* * *

THE COMMISSIONER ordered Blue Shield Board of Directors to take steps before next July to establish a plan to prevent "abuse or misuse" of medical insurance. He said the Insurance Department has received complaints that some doctors charge Blue Shield subscribers higher fees than other patients, bill Blue Shield for services never performed, and make Blue Shield pay for the excessive number of diagnostic services. "The public is more than willing to pay for adequate medical care but they do object to subsidizing abuses or misuse."

In granting only 11.5 per cent premium increase, Mr. Blackford said he was disallowing Blue Shield's plea for 3.5 per cent additional money to build up a surplus for future emergencies, or to help Blue Shield

recoup the approximately $4 million it would be in the red by June 30, 1960. THE JOURNAL has given the high points of this decision, not all the details. The medical profession and Michigan Medical Service are on trial in Michigan, but that trial is not confined to Michigan. The major part of the considerations, conferences, actions, etc., of the American Medical Association in Miami at the June, 1960, Annual Session was devoted to prepayment health insurance and old age care. Everybody in authority and experience expressed the belief and the hope that Blue Shield and the pre-payment concept could survive these trying times. Never before has the American Medical Association through its top officials expressed so much concern as they do now to preserve the private practice of medicine—independent from government dictation.

Use, Not Abuse

Recently the American Medical Association published a little two-color booklet *Let's Use, Not Abuse Health Insurance*. Every doctor should have copies on his desk where his patients could take one. They are free. We quote the last two paragraphs.

> "If everyone with a stake in the success of voluntary insurance accepts his personal responsibility for making these plans work, the end result will be continually improved insurance plans more closely tailored to your own family's financial needs.
>
> "And like the family car that's well cared for, you'll get a lot more mileage out of your health insurance coverage if you use it, not abuse it."

Several points of abuse most of our doctors know: there is the insured person who wishes to get full benefit of everything he thinks he is entitled to (the limit) because he has paid his premium. He asks for too many services not intended to be covered by the contract. Also there is the doctor who readily sends his patient into the hospital for diagnosis not covered, rather than for treatment of a diagnosed condition. There is the hospital which wishes its beds to be used continuously and welcomes an extra day's stay for patients. There is the doctor who in writing his orders, and in treating his patients, has unnecessary services performed, even has standing orders in the hospital for minor or elaborate preparatory surveys before he even sees the patient.

Medical Expenditures

In the opinion of a great majority of our critics, the doctor is accused of unnecessarily benefiting, or of having extra or more expensive work done. Surveys of the dollar spent for all health service are being mentioned in every cost of living increase being reported by the federal government. The doctor's share of that dollar is being constantly decreased.

Only five years ago it was 37 cents, today it is less than 24 cents, but that medical dollar is ballooning in many ways to fabulous figures. The reasons—hospital care and hospital services have been improved and increased enormously, the costs naturally going up because they are mostly labor. Services for many of the individual conditions or the specific conditions have been undergoing rapid change. Research has produced new drugs and new methods, many of which are costly, the result being that the total cost of any mentioned service has just about doubled in the last four or five years. Many new and unusual services were unknown five years ago and the costs are high. What shall we do?

There are medical care insurance committees in every Councilor District of the state who have an advisory and consultive capacity with authority. They should be consulted wherever there is a question of proper procedures or proper services or adequate compensation. It may be necessary for that committee even to make surveys of our hospitals to determine just who among our members is ordering the unnecescary blood count, EKG, GI series, electrocardiogram or what have you. Every member, whenever he is taking care of a patient under Blue Shield contract, should ask himself one question: "Have I given this patient adequate care without unnecessary expense?" If that could be done, there should be no fear for the future of Blue Shield and we believe such a demonstration would earn for Michigan Medical Service the increased rating necessary to keep the program in the black.

It may be necessary, and this has been considered by the Board, to withhold percentage of the payment due the doctors. Nineteen years ago Blue Shield "prorated" 20 per cent for enough time to get back on a financial balance. Three or four years later that proration was all returned to the doctors. The Board hopes it will not be necessary to withhold this time—but that may be the only alternative. There is a strong sentiment in our Board, also in the Blue Shield programs in other states, that during this crisis (which is not local to Michigan), the doctors' fees not be cut but a percentage be withheld if necessary with the understanding that it is to be repaid when and if the program can police itself, prevent abuses and again be solvent.

Many Thanks

We wish to express our sincere thanks to Robert D. Warnke, M.D., of Kalamazoo, for his invaluable assistance in securing the many fine original papers which are published in this special issue of THE JOURNAL devoted to the Kalamazoo Academy of Medicine.

Michigan State Medical Society

The Ninety-Fifth Annual Session

SHERATON-CADILLAC HOTEL, DETROIT

September 25-30, 1960

Meetings of Special Societies and Sections

TUESDAY, SEPTEMBER 27

MSMS Section on Medicine and Michigan Society of Internal Medicine—5:00-6:00 p.m. Section meeting followed by reception and dinner at 6:30 p.m. in Suite 610 of the Sheraton-Cadillac Hotel.

AMERICAN ACADEMY OF PEDIATRICS

Michigan Chapter

Annual Meeting—September 27, 1960—Detroit

Henry Ford Hospital-Clinic Building Auditorium

Morning Session

Dr. Philip J. Howard, Presiding

Case Presentations and Discussion

A.M.

10:00 Adenoma of the Thyroid—Dr. Martin Miller
10:30 Intersex Problems of the Newborn Infant—Dr. C. Paul Hodgkinson
11:00 Aldosteronism—Clinical Description and Course—Dr. Raymond Mellinger
11:30 The Infant of the Diabetic Mother—Dr. Gordon Manson

M.

12:00 The Parathyroid—Dr. Boy Frame

P.M.

12:45 LUNCH—17th Floor

Afternoon Session

Dr. Robert Heavenrich, Presiding

2:00 Turner's Syndrome—Dr. Richmond Smith
2:30 Adolescent Menstrual Problems—Dr. George LaCroix
3:00 Treatment of Hyperthyroidism—Dr. Robert Bauer
3:30 The Complications of Steroid Treatment—Dr. J. A. Johnston

Evening Session

Pan American Room—Sheraton-Cadillac Hotel

6:00 Cocktails and Dinner
Host—The Baker Laboratories, Cleveland, Ohio
8:00 Evening Meeting
Business—Election of Officers
Speaker—Dr. Robert Blizzard—Columbus, Ohio, and Johns Hopkins Medical School

Michigan Academy of Physical Medicine and Rehabilitation—The annual meeting will be held in the Pan American Room of the Sheraton-Cadillac Hotel from 12:30 p.m. until 2 p.m., Tuesday, September 27. The meeting will be a business luncheon meeting and will be open only to members of the Michigan Academy of Physical Medicine and Rehabilitation.

WEDNESDAY, SEPTEMBER 28

MSMS Section on Obstetrics-Gynecology and the Michigan Society of Obstetrics-Gynecology—5:00-6:00 Section meeting followed by reception and dinner at 6:30 p.m. in the English Room of the Sheraton-Cadillac Hotel.

Michigan Allergy Society—6:00 p.m. reception and dinner followed by a meeting at 8:30 p.m. in Parlors G-H-I of the Sheraton-Cadillac Hotel.

Michigan Regional Committee on Trauma, American College of Surgeons—12:00 noon luncheon followed by a 2:00-5:00 p.m. meeting. Luncheon will be in the Sheraton Room and the meeting is scheduled for Parlors G-H-I of the Sheraton-Cadillac Hotel.

Michigan Society of Clinical Hypnosis—8:00 p.m. meeting in the Sheraton Room of the Sheraton-Cadillac Hotel.

Detroit Pediatric Society—Reception and dinner in the Grand Ballroom of the Sheraton-Cadillac Hotel.

MSMS Advisory Committee of Past Presidents—12:00 noon luncheon-meeting in Parlor F of the Sheraton-Cadillac Hotel.

THURSDAY, SEPTEMBER 29

Association of Alpha Kappa Kappa—7:30 a.m. breakfast and meeting in the Pan American Room of the Sheraton-Cadillac Hotel.

MSMS Section on Nervous and Mental Diseases, the Michigan Society of Neurology and Psychiatry, and the Michigan District Branch of the American Psychiatric Association—5:00-6:00 p.m. Section meeting followed by reception and dinner at 6:30 p.m. in the English Room of the Sheraton-Cadillac Hotel.

MSMS Section on Otolaryngology and the Detroit Otolaryngological Society—5:00-6:00 p.m. Section meeting followed by reception and dinner at 6:30 p.m. in the Sheraton Room of the Sheraton-Cadillac Hotel.

Wayne State University College of Medicine Alumni Association—will hold an annual banquet in the Book Casino Room of the Sheraton-Cadillac Hotel. Reception and cocktails at 6:00 p.m. and dinner at 7:00 p.m. All alumni, faculty, and friends of Wayne State University are cordially invited to attend. Dean Gordon H. Scott of the College of Medicine will be the principal speaker. The College of Medicine Alumni Association will also maintain a headquarters suite in the Sheraton-Cadillac Hotel during the Annual Session.

THURSDAY, SEPTEMBER 29 *(continued)*

Michigan Diabetes Association—6:30 p.m. reception-dinner, Bagley Room, Statler-Hilton Hotel. Talk on "Specific Vascular Lesions in the Diabetic" by Sidney Goldenberg, M.D., Senior Instructor in Medicine, St. Louis University School of Medicine, St. Louis, Missouri.

FRIDAY, SEPTEMBER 30

MSMS Section on Gastroenterology and Proctology—1:00 p.m. luncheon and Section meeting in the Pan American Room of the Sheraton-Cadillac Hotel.

MSMS Section on Pathology and Michigan Pathological Society—12:30 p.m. luncheon-meeting with Assembly speaker R. Dorothy Sundberg, M.D., Minneapolis, Minnesota, in the English Room of the Sheraton-Cadillac Hotel.

MICHIGAN DIABETES ASSOCIATION

Grand Ballroom

Sheraton-Cadillac Hotel—Detroit

Chairman: RALPH FITTS, M.D., Grand Rapids, Michigan

P.M.

2:00 "Physiology of Diabetes"—ROBERT B. LEACH, M.D., Assistant Professor of Medicine, Wayne State University College of Medicine, Detroit

2:20 "Pathology of Diabetes"—JOHN R. MCDONALD, M.D., Associate Professor of Pathology, Wayne State University College of Medicine, Detroit

2:40 "Modern Insulin Therapy"—HENRY T. RICKETTS, M.D., Professor of Medicine, University of Chicago School of Medicine, Chicago, Illinois

Intermission

3:20 "Oral Drugs in Diabetes"—JAMES M. MOSS, M.D., Clinical Associate Professor of Medicine, Georgetown University School of Medicine, Washington, D. C.

3:40 "Clinical Use of Glucagon"—FRED W. WHITEHOUSE, M.D., Associate Physician, Henry Ford Hospital, Detroit

4:00 PANEL: "Peripheral Vascular Disease in the Diabetic"

Moderator:

WALTER L. ANDERSON, M.D.—Clinical Assistant Professor of Medicine, Wayne State University College of Medicine, Detroit

Members:

HENRY T. RICKETTS, M.D.—Chicago

EUGENE A. OSIUS, M.D.—Clinical Associate Professor of Surgery, Wayne State University College of Medicine, Detroit

MELVIN A. BLOCK, M.D.—Associate Surgeon, Henry Ford Hospital, Detroit

SIDNEY GOLDENBERG, M.D.—Senior Instructor in Medicine, St. Louis University School of Medicine, St. Louis, Missouri

THE WOMAN'S AUXILIARY TO THE MICHIGAN STATE MEDICAL SOCIETY will hold its Annual Session this year at the Pick-Fort Shelby in Detroit, September 27-29. For the Auxiliary this will be the thirty-fourth year, the ideal age of woman, and the Auxiliary officers hope all wives and guests of doctors attending the MSMS Annual Session will find their way to the W. A. center of activity.

Here will be opportunity for renewing friendships of the past and making new and exciting ones. Here one can learn what is being done around the state by other doctors' wives. There will be coffee and refreshments for all in our hospitality room; delicious luncheons at noon.

Come Tuesday, register and make your reservations, then spend the day shopping. Stay Wednesday for excitement and information in the meetings. Thursday, your new officers will be installed and there will be more shopping time in the afternoon before celebrating State Society Night with your husband.

In honor of Kathleen Mackersie, Michigan's First National President, the WA officers hope you will come and help make this convention the biggest gala event in the history of the Auxiliary! You really can't afford to miss it!

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

Thirty-fourth Annual Meeting

September 27-29, 1960

Pick-Fort Shelby — Detroit

PROGRAM

Tuesday, September 27

P.M.

12:00 Registration in Lobby, Pick-Fort Shelby
Hospitality Room Opens
Luncheon—Shelby Room—Planning Conference for District Directors 1959-60 and 1960-61
MRS. CLARENCE OWEN, Presiding

3:00 Executive Committee Meeting—Shelby Room

4:00 Meeting of 1959-60 and 1960-61 Committee Chairmen—Shelby Room

Wednesday, September 28

A.M.

9:30 Pre-Convention Board Meeting (for 1959-60 State Officers, Directors, Chairmen and County Presidents)—Crystal Ballroom

10:00 Formal Opening of 34th Annual Meeting of the Woman's Auxiliary to the Michigan State Medical Society—Crystal Ballroom
MRS. HAROLD GAY, Presiding

(Delegates and Board Members will please register with the Roll Call Chairman at the door before the opening of each session, thus eliminating the need of an oral roll call.)

Invocation—BISHOP R. S. EMERICH, St. Pauls Cathedral, Detroit

Pledge of Allegiance to the Flag and Woman's Auxiliary Pledge—MRS. ROBERT HAFFORD

Address of Welcome—MRS. EARL WESTON, Immediate Past President, Wayne County Auxiliary

Response—MRS. CLARENCE OWEN, First Vice-President, Woman's Auxiliary to the Michigan State Medical Society

Introduction of Convention Chairmen, MRS. F. P. RHOADES and MRS. EDWIN FENTON

Report of Roll Call Chairman, Mrs. Frederick Luger
Convention Rules of Order
Presentation of Program
Announcements
Address of the President—Mrs. Harold H. Gay

Reports of the Officers:
President-Elect—Mrs. Paul Ivkovich
First Vice-President—Mrs. Clarence Owen
Second Vice-President—Mrs. Rose Taylor
Recording Secretary—Mrs. William Marshall
Corresponding Secretary—Mrs. G. L. Hagelshaw
Financial Secretary—Mrs. C. J. Stringer
Treasurer—Mrs. R. J. Himmelberger (including the Auditor's report)

Report of the Finance Committee and presentation of 1960-61 budget—Mrs. F. X. Krynicki, chairman
Unfinished Business
New Business

P.M.

12:30 Past President's Luncheon—Honoring: Mrs. William Mackersie, President Woman's Auxiliary to the AMA, Guest from Woman's Auxiliary to the AMA, Past President of the Woman's Auxiliary to the MSMS and Representatives of the MSMS
Coral Room—Pick-Fort Shelby
Greetings—Kenneth Johnson, M.D., President-Elect MSMS
David I. Sugar, M.D., President Wayne County Medical Society
(Name to be announced) Representative from Woman's Auxiliary to AMA
Guest Speaker—Mrs. Eleanor Brown, Interior Designing Lecturer, Toronto, Canada

2:30 Resume General Session
Crystal Ballroom
Address—Representative from Woman's Auxiliary to AMA
County Reports—"The Year in Silhouette"
District I—Moderator—Mrs. Milton Weed
Huron, Lapeer, Macomb, Oakland, Sanilac, St. Clair, Wayne
District II—Moderator—Mrs. Victor Zerbi
Eaton, Ingham, Jackson, Lenawee, Livingston, Monroe, Washtenaw
District III—Moderator—Mrs. Albert Fiegel
Allegan, Berrien, Branch, Calhoun, Kalamazoo, St. Joseph, Van Buren

Thursday, September 29

A.M.

8:00 Memorial Breakfast
In Memoriam Service—Mrs. C. Allen Payne

9:30 General Meeting of the Woman's Auxiliary to the Michigan State Medical Society—Mrs. Harold Gay, *presiding*
Convention Announcements
Report of Registration and Credentials Committee
County Reports *(continued)*
District IV—Moderator—Mrs. Lorenzo Nelson, Ionia-Montcalm, Kent, Mason, Mecosta-Osceola-Lake, Muskegon, Newaygo
District V—Moderator—Mrs. William Gamble, Jr., Bay, Genesee, Gratiot-Isabella-Clare, Clinton, Midland, Saginaw, Shiawassee, Tuscola
District VI and VII — Moderator — Mrs. Charles Oppy, Grand Traverse-Leelanau-Benzie, North Central, Northern Michigan, Wexford-Missaukee
District VIII and IX — Moderator — Mrs. Leonard Aldrich, Delta-Schoolcraft, Dickinson-Iron, Marquette-Alger, Menominee, Houghton-Baraga-Keeweenaw, Gogebic, Ontonagon, Chippewa
Report of Resolutions Committee
Report of Nominating Committee—Mrs. Robert Reagan, *Chairman*

Election of Officers

Final Report of Registration and Credentials Committee

Meeting of Executive Committee 1960-61—Mrs. Paul Ivkovich, *presiding*

P.M.

12:30 Inaugural Luncheon—Coral Room, Pick-Fort Shelby Hotel

Installation of Officers

Presentation of Past President's Pin—Mrs. Robert Reagan

Inaugural Address—Mrs. Paul Ivkovich

Adjournment

Post-Convention Board Meeting for all 1960-61 Officers, District Directors, Chairmen, and County Presidents—immediately following adjournment of Annual Meeting
Coral Room—Pick-Fort Shelby Hotel
Mrs. Paul Ivkovich, *presiding*

P.M.
9:30 to 12:30 **A.M.** State Society Night
Host—Michigan State Medical Society

NEW INFORMATION IN THE EXHIBIT

Many items of interest or education will be found in the large exhibit of 95 technical displays. The Exhibit Section at MSMS Annual Sessions is as important, informative, and desirable to most doctors of medicine as the scientific papers presented in the Assembly room.

Doctor, stop at every booth—you'll be surprised how much you'll learn. No highpressure salesman but a courteous, well-informed exhibitor will greet you and supply you with some valuable information helpful to your patients.

MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

Annual Meeting Program

September 28-29, 1960

Statler-Hilton Hotel, Detroit

Tuesday, September 27

P.M.

7:00 Hospitality Room
Welcoming Committee
Hostess: Miss Babs Ball, President, Detroit Medical Assistants Society

Wednesday, September 28

A.M.

9:00 Mezzanine
Registration—Fee for non-members $5.00
Co-Chairmen: Virginia Miller and Virginia Stewart

10:00 Bagley Room
Welcome—Mrs. Reta Stahl, President, MSMAS
Pledge and Invocation—Hallie Cummins
Annual Business Meeting and Election of Officers
Parlor F
Film for Non-Members
"Socialized Medicine in Britain"

P.M.

12:30 Wayne Room
Luncheon
Hostess: Mrs. Nelda Gasperson
Speaker: E. A. Irvin, M.D., Medical Director Ford Motor Company
"Motives and Incentives"

2:00 Bagley Room
Willard Dickerson, M.D., Superintendent Caro State Hospital for Epileptics
"Temporal Lobe Seizures"

3:00 Movie—"Seizures," Courtesy, Parke-Davis & Co.

4:00 View Exhibits—Sheraton-Cadillac Hotel

6:30 Bagley Room
Social Hour—Courtesy, Parke-Davis and Co.
Hostess: Mrs. Thelma Cousineau
Toni Patti—The Wandering Minstrel

7:30 Wayne Room
Banquet
Hostess: Miss Gwen Whitcomb
Dinner Music—Toni Patti
Speaker: Mr. Wilfred Holmes-Walker, Rector, St. Phillips and St. Stevens Church
"Religion and Health"

Thursday, September 29

A.M.

9:00 Mezzanine
Registration—Fee for non-members $5.00

10:00 Bagley Room
Joseph Molner, M.D., Detroit Board of Health
"Preventative Medicine and Vaccines"

11:00 Stuart Finch, M.D., Associate Professor of Psychiatry, University Hospital, Ann Arbor
"Adolescent Problems"

P.M.

12:30 Wayne Room
President's Luncheon
Hostess: Miss Dottie DeYoung
Installation of Officers
J. L. Hudson Company Uniform Style Show

2:30 Tour—approximately two hours
Chairman: Mary Jayne Baker

4:00 View Exhibits—Sheraton-Cadillac Hotel

MSMAS Officers

President—Mrs. Reta V. Stahl, 308 S. Superior, Albion

President-Elect—Mrs. Betty Lou Willey, 1108 Military, Port Huron

Recording Secretary—Miss Catherine La Pres, 302 Medical Arts Center, Muskegon

Corresponding Secretary—Mrs. Nan Globensky, Sheldon Memorial Hospital, Albion

Treasurer—Miss Cecile Rutan, Hanover, Michigan

Past-President—Miss Donna Hislop, 878 Second Street, Muskegon

Historian—Mrs. Catherine Fuller, 121 S. Main Street, Olivet

MSMS Advisory Committee

John W. Rice, M.D., Chairman, Jackson

L. E. Holly, II, M.D., Muskegon

D. B. Johnson, M.D., Lansing

J. E. Manning, M.D., Saginaw

G. E. Millard, M.D., Detroit

A. S. Narotsky, M.D., Ishpeming

T. J. Trepasso, M.D., Sault Ste. Marie

J. A. Witter, M.D., Highland Park

Ralph Carlson, M.D., Iron Mountain

Committees

Convention: Miss Esther Bartlet, Co.-Chairman, Detroit
Mrs. Cora Steckel, Co.-Chairman, Detroit

Nominating: Mrs. Gertrude Haessig, Schoolcraft

Public Relations: Mrs. Beth Brinn, Saginaw

Membership: Mrs. Alta Greene, Battle Creek

Education: Mrs. Marguerite Woolhouse, Lansing

Civil Defense: Mrs. Lorine Luplow, Saginaw

Bulletin Editor: Miss Marie Erickson, Saginaw

Circulation: Miss Helen Hawkins, Saginaw

Business Manager: Mrs. Altha Kaunitz, Bay City

Educational Seminar: Mrs. Marion Collins, Jackson

November President's Conference: Mrs. Kay Wilcox, Bay City

April President's Conference: Mrs. Violet Howorth, Benton Harbor

Medical Assistant of the Year: Mrs. Carol Anderson, Coldwater

Constitution: Miss Hallie Cummins, Caro

Budget Committee: Miss Cecile Rutan, Hanover

U.P. Representative: Mrs. Jean P. Carey, Marquette

IT'S NEW AND IT'S ALL FOR YOU

"State Society Dinner Dance"

Thursday, September 29, 1960

Sheraton-Cadillac Hotel

Detroit

All MSMS members and their ladies are invited to the "State Society Dinner Dance" for an evening of fun and merriment. Also attending the colorful social event will be the Annual Session exhibitors. This new event combines the former "gridiron banquet" for the exhibitors, the Officers Night Dinner Dance and the State Society Night.

You're invited to join the group for preprandials, followed by an evening of dinner, dancing and a stellar floor show.

The tickets will be limited, so you are urged to take advantage of the advance reservation form which will be sent soon to every member.

Remember, you are invited to this delightful evening.

IT'S NEW AND IT'S ALL FOR YOU

OUTLINE OF 1960 ASSEMBLY AND SECTION SPEAKERS
95TH ANNUAL SESSION MSMS
Detroit, September 27-28-29-30, 1960

Tuesday September 27, 1960

Registration begins at 10:00 a.m. on Tuesday

2:00-2:30 p.m.
Medicine
HUGH R. BUTT, M.D.
Rochester, Minnesota

2:30-3:00 p.m.
Medicine
JOHN B. GROSS, M.D.
Rochester, Minnesota

3:00-4:00 p.m.
INTERMISSION TO VIEW EXHIBITS

4:00-4:30 p.m.
Medicine
HENRY J. TUMEN, M.D.
Philadelphia, Pennsylvania

4:30-5:00 p.m.
Public Health & Preventive Medicine
MALCOLM H. MERRILL, M.D.
Berkeley, California

5:00 p.m. meeting-dinner
Section on Medicine and Michigan Society of Internal Medicine
WM. D. ROBINSON, M.D.
Ann Arbor, Michigan

5:00-6:00 p.m. meeting
Section on Public Health & Preventive Medicine
MALCOLM H. MERRILL, M.D.
Berkeley, California

5:00-6:00 p.m. meeting
Section on General Practice
JOHN B. GROSS, M.D.
Rochester, Minn.

Wednesday September 28, 1960

9:00-9:30 a.m.
Obstetrics-Gynecology
J. ROBERT WILLSON, M.D.
Philadelphia, Pennsylvania

9:30-10:00 a.m.
Obstetrics-Gynecology
ROBERT H. BARTER, M.D.
Washington, D. C.

10:00-11:0 a.m.
INTERMISSION TO VIEW EXHIBITS

11:00-11:30 a.m.
Obstetrics-Gynecology
ROY G. HOLLY, M.D.
Omaha, Nebraska

11:30 a.m.-12:00 M
Radiology
RUTH J. GUTTMANN, M.D.
New York, New York

12:00-12:30 p.m.
Surgery
ROBERT TURELL, M.D.
New York, New York

12:30-2:00 p.m.
Luncheon

2:00-3:00 p.m.
Surgery Panel
CHARLES G. CHILD, 3RD, M.D.
Ann Arbor, Michigan
BENTLEY P. COLCOCK, M.D.
Boston, Massachusetts
GORDON A. DONALDSON, M.D.
Boston, Massachusetts

3:00-4:00 p.m.
INTERMISSION TO VIEW EXHIBITS

4:00-4:30 p.m.
Surgery
GERALD O. MCDONALD, M.D.
Chicago, Illinois

4:30-5:00 p.m.
Anesthesiology
JOHN J. BONICA, M.D.
Tacoma, Washington

5:00-6:00 p.m. meeting
Section on Surgery
CHARLES G. CHILD, 3rd, M.D.
Ann Arbor, Michigan

5:00 p.m. meeting-dinner
Section on Obstetrics-Gynecology and Michigan Society of Obstetrics-Gynecology
ROY G. HOLLY, M.D.
Omaha, Nebraska

5:00-6:00 p.m. meeting
Section on Radiology
RUTH J. GUTTMANN, M.D.
New York, New York

5:00-6:00 p.m. meeting
Section on Anesthesiology and Michigan Society of Anesthesiology
JOHN J. BONICA, M.D.
Tacoma, Washington

Thursday, September 29, 1960

9:00-10:00 a.m.
Dermatology-Syphilology Panel
CLARENCE S. LIVINGOOD, M.D.
Detroit, Michigan
RUDOLF L. BAER, M.D.
New York, New York
DONALD J. BIRMINGHAM, M.D.
Cincinnati, Ohio

10:00-11:00 a.m.
INTERMISSION TO VIEW EXHIBITS

11:00-11:30 a.m.
Ophthalmology
ROBERT W. HOLLENHORST, M.D.
Rochester, Minnesota

11:30 a.m.-12:00 M.
Otolaryngology
JOHN J. CONLEY, M.D.
New York, New York

12:00-12:30 p.m.
Urology
HARRY M. SPENCE, M.D.
Dallas, Texas

12:30-2:00 p.m.
Luncheon

2:00-3:00 p.m.
Urology-Pediatric Panel
HARRY A. TOWSLEY, M.D.
Ann Arbor, Michigan
MITCHELL I. RUBIN, M.D.
Buffalo, New York
VINCENT J. O'CONOR, M.D.
Chicago, Illinois

3:00-4:00 p.m.
INTERMISSION TO VIEW EXHIBITS

4:00-5:00 p.m.
Occupational Medicine and Nervous and Mental Disease Panel
LEONARD E. HIMLER, M.D.
Ann Arbor, Michigan
R. LOMAX WELLS, M.D.
Washington, D. C.
RALPH T. COLLINS, M.D.
Rochester, New York

5:00 p.m. dinner-meeting
Section on Nervous and Mental Diseases and Michigan Society of Neurology and Psychiatry
RALPH T. COLLINS, M.D.
Rochester, New York

5:00-6:00 p.m. meeting
Section on Pediatrics
REED M. NESBIT, M.D.
Ann Arbor, Michigan

5:00 p.m. meeting-reception
Section on Occupational Medicine
R. LOMAX WELLS, M.D.
Washington, D. C.

5:00-6:00 p.m. meeting
Section on Dermatology-Syphilology
RUDOLPH L. BAER, M.D.
New York, New York
DONALD J. BIRMINGHAM, M.D.
Cincinnati, Ohio

5:00 p.m. meeting-dinner
Section on Otolaryngology and Detroit Otolaryngology Society
JOHN J. CONLEY, M.D.
New York, New York

5:00-6:00 p.m. meeting
Section on Ophthalmology
ROBERT W. HOLLENHORST, M.D.
Rochester, Minnesota

5:00 p.m. meeting-reception
Section on Urology and Detroit Branch, American Urology Society
HARRY M. SPENCE, M.D.
Dallas, Texas

Friday September 30, 1960

9:00-9:30 a.m.
ANDREW P. BIDDLE, M.D., LECTURE
PAUL DUDLEY WHITE, M.D.
Boston, Massachusetts

9:30-10:00 a.m.
Gastroenterology-Proctology
E. CLINTON TEXTER, JR., M.D.
Chicago, Illinois

10:00-11:00 a.m.
INTERMISSION TO VIEW EXHIBITS

11:00 a.m.-12:00 M.
General Practice and Nervous and Mental Disease Panel
JOHN W. RICE, M.D.
Jackson, Michigan
C. KNIGHT ALDRICH, M.D.
Chicago, Illinois
LEONARD L. LOVSHIN, M.D.
Cleveland, Ohio

12:00-12:30 p.m.
Pathology
R. DOROTHY SUNDBERG, M.D.
Minneapolis, Minnesota

12:30 p.m. luncheon-meeting
Section on Pathology and Michigan Pathological Society
R. DOROTHY SUNDBERG, M.D.
Minneapolis, Minnesota

1:00-2:00 p.m. luncheon-meeting
Section on Gastroenterology-Proctology
E. CLINTON TEXTER, JR., M.D.
Chicago, Illinois

END OF 1960 ANNUAL SESSION

Technical Exhibitors

(Alphabetic List)

Abbott Laboratories **Booth No. 16**
North Chicago, Ill.

Abbott Laboratories invites you to visit our exhibit. Our representatives will be happy to answer any questions you may have concerning our leading products and new developments.

A. S. Aloe Company **Booth No. 73**
St. Louis, Mo.

Practical displays of Swedish stainless instruments will be featured as well as examining equipment and diagnostic aids to office practice. Tom and Wallie Boufford and Wilson Whiteside will be on hand to greet our visitors.

Ames Company, Inc. **Booth No. 26**
Elkhart, Ind.

Ames Company's exhibit will feature COMBISTIX, new "dip-and-read" reagent strips which are a colorimetric combination test for urinary protein, glucose and pH. One dip gives three results in ten seconds.

Available for demonstration will be the other Ames diagnostics for quick reliable and economical urinalyses.

You are cordially invited to discuss these products with our representatives.

Armour Pharmaceutical Company **Booth No. 95**
Kankakee, Ill.

The Armour Pharmaceutical Cmpany exhibit will feature Chymoral, a new systemic anti-inflammatory enzyme tablet which reduces inflammation, swelling and pain. Also included will be Pentritol tempules which release 30 mg. of pentaerythritol tetranitrate in three divided doses to provide twelve-hour relief in angina pectoris and Chymar Aqueous, the parenteral systemic anti-inflammatory enzyme, and Chymar Ointment, the topical form.

Baker Laboratories, Inc. **Booth No. 59**
Cleveland, Ohio

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display.

Baker representatives will be glad to discuss the benefits of Baker Milk products which provide all the normal dietary requirements plus a reserve for stress situations.

Barry Laboratories **Booth No. 18**
Detroit, Mich.

Sterile Injectables
Allergy Products
Merphene

MERPHENE, the perfect germicide that will not damage mucous membranes but will KILL antibiotic resistant staphylococcus aureus in less than fifteen seconds, and tetanus spores in less than five minutes. Ask our representative to show you the confirmed reports.

BARRY ALLERGENS, the newest in antigens testing and treatment.

Belle Moss Mfg. Chemist **Booth No. 56**
Detroit, Mich.

DIAPREX OINTMENT, for effective treatment and prevention of Diaper Rash. It is also useful for adults as well as for children in Heat Rash, Chafing and other skin irritations.

CARBAX EMOLLIENT, a new bland water soluble antipruritic for all types of eczemas and skin irritations overtreated with antibiotics, tars and other medicaments.

Borcherdt Company **Booth No. 54**
Chicago, Ill.

Borcherdt's are featuring:

MALT SOUP EXTRACT: Laxative food supplement for infants, children and adults, and for dietary treatment of pruritus ani.

UROLITIA: Relieves painful urination and clears infected urine in chronic urinary infections, without toxicity or drug fastness.

FERROMALT: Ferrous sulfate, combined with Malt Soup Extract, for treatment of iron deficiency anemia. No constipation, no diarrhea, no gastric irritation.

Stop in for recently published papers.

The Borden Company **Booth No. 27**
New York, N. Y.

Featuring Bordens new pediatric creme METHAKOTE for the treatment of diaper rash in all degrees of severity. Eliminates B ammonigenes the causative factor and prevents staph and other secondary invaders. The added sulphur-bearing amino acids accelerate wound healing at site of lesion. Complete information on METHAKOTE and our infant formulas, Bremil and Mull-Soy, is available at Booth No. 27 through our courteous representatives.

Burroughs Wellcome & Company **Booth No. 93**
Tuckahoe, N. Y.

Burton, Parsons & Company **Booth No. 78**
Washington, D. C.

You are cordially invited to visit the Burton, Parsons & Company booth where information, samples and literature will be available for our EKG Sol, the modern electrode cream for electrocardiography and electroencephalography, along with our original bulk preparations, Konsyl and L. A. Formula. L. A. Formula contains 50% bulk producing material dispersed in an equal amount of lactose and dextrose. Konsyl, on the other hand, contains 100% bulk producing material and is certainly the product of choice for the obese, the diabetic, and others with restricted caloric diets.

Cambridge Instrument Company, Inc. **Booth No. 45**
New York, N. Y.

CAMBRIDGE INSTRUMENT COMPANY, INC., New York City, Booth No. 45. The Cambridge "Versa-Scribe"—the Versatile Portable Electrocardiograph; and the Cambridge "Simpli-Scribe" Model Direct-Writing Portable Electrocardiograph will be displayed at this booth. Also other important Cambridge instruments, including the Audio-Visual Heart Sound Recorder, Operating Room Cardioscope, Educational Cardioscope, Multi-Channel Physiological Recorder, Electrokymograph, Plethysmograph, pH Meters, and Pulmonary Function Tester.

The Cambridge Engineers in attendance will be glad to give you complete information on these instruments.

Cameron Surgical Specialty Co. **Booth No. 29**
Chicago, Ill.

To help in your diagnostic procedures and office surgery, Cameron shows its new Electro-Surgical Units incorporating the modalities and convenience essential to modern office surgery. The modern, efficient electrosurgical family includes the 255 and the new 265.

Also showing Suction Coagulation Electrodes, Snares, electrically illuminated Ano-Procto-Sigmoidoscope equipment (distal and proximal), Otoscopes, Mouth Gags, Transilluminators, Gastroscopes, et cetera. Cameron's continuing research program results in excellent instrumentation, considerately priced.
We would like the opportunity of demonstrating to you.

Carnation Company **Booth No. 10**
Los Angeles, Calif.
Carnation Company cordially invites you to visit Booth No. 10, where Medical Specialist representatives will be pleased to welcome you.
Recent literature and information regarding Carnation Evaporated, Carnation Instant Non-Fat, and our newest product CARNALAC are available.
Any question pertaining to our physician-researched material for use in your practice or hospital will be cheerfully discussed.

Central Pharmacal Company **Booth No. 70**
Seymour, Ind.
Central's exhibit will feature CENASERT IMPROVED an effective new weapon for treating Trichomonal, monilial and bacterial vaginitis. Medical service members of our staff will be in attendance at our booth to discuss this specialty and others that will be on display.

Chicago Pharmacal Company **Booth No. 63**
Chicago, Ill.
URISED: Clinically proven tablet for both comfortable sedation and thorough antisepsis in genito-urinary affections.
JUNIPLEX: Pleasant tasting liquid tonic containing essential minerals, B complex plus 30 micrograms of Vitamin B_{12} per teaspoonful.
ESTROSED: Tablet containing reserpine and ethinylestradiol for treatment of the menopausal syndrome.
BITAVITA: Delicious, refreshing citrus flavored, chewable vitamin supplement tablet for both children and adults.

Ciba Pharmaceutical Products, Inc. **Booth No. 24**
Summit, N. J.
ISMELIN
Ismelin is a new CIBA antihypertensive indicated in advancing hypertension. Alone, or in combination, it has lowered blood pressure effectively in 80 to 90 per cent of patients.
Ismelin affords a new way to control hypertension: Since it acts at the site of arteriolar blood pressure regulation—that is, the nerve-arteriole junction—Ismelin has no central or parasympathetic effects. CIBA representatives will be glad to discuss this and other CIBA products.

Coca-Cola Company **Booth No. 83**
Atlanta, Ga.
Ice-cold Coca-Cola served through the courtesy and cooperation of the Detroit Coca-Cola Bottling Company and The Coca-Cola Company.

Desitin Chemical Company **Booth No. 7**
Providence, R. I.
DESITIN OINTMENT: For treatment of burns, ulcers, diaper rash, abrasions, etc.
DESITIN POWDER: Relieves chafing, sunburn, diaper rash, etc.
DESITIN SUPPOSITORIES and RECTAL OINTMENT: Relieve pain and itching in uncomplicated hemorrhoids, fissures.
DESITIN BABY LOTION: Protective, antiseptic.
DESITIN ACNE CREAM: A non-staining, flesh-tinted "Medicream" for the treatment of Acne Vulgaris.
DESITIN COSMETIC & NURSERY SOAP: Supermild.
DESITIN SUPPOSITORIES with HYDROCORTISONE: Prompt response to inflammatory conditions in proctitis, severe pruritus, edema.

Dictaphone Corporation **Booth No. 68**
Detroit, Mich.
An exhibit of the latest electronic dictating equipment. Featuring Dictaphone Telecord Remote Central Dictating, Dictet and Dictaphone Interview Recording systems. Telephone Recording for Medical Information. All equipment exhibited as it applies exclusively to the medical profession.

Dietene Company **Booth No. 76**
Minneapolis, Minn.
Have you tasted Meritene? Meritene is the good-tasting *Protein*-vitamin-mineral Food Supplement prescribed to provide concentrated nutrition for patients with poor appetite or tolerance for ordinary food. Visit our booth and let us serve you a cool, refreshing Meritene Nourishment.
While there, review also our Dietene Reducing Plan, designed to get better cooperation from over-weight patients. The Dietene Plan provides optimum nutrition and maximum satiety without the use of drugs.

Doho Chemical Corporation **Booth No. 25**
New York, N. Y.
DOHO CHEMICAL CORPORATION is pleased to exhibit:
AURALGAN: Otitis Media and removal of Cerumen.
OTOSMOSAN: Fungicidal and Bactericidal in the suppurative and aural dermatomycotic ears.
RHINALGAN: Nasal decongestant free from systemic or circulatory effect.
LARYLGAN: Throat spray and gargle for infectious and non-infectious sore throat involvements.
Mallon Chemical Corporation, Division of DOHO:
RECTALGAN: For relief of pain and discomfiture in hemorrhoids, pruritus and perineal suturing.
DERMOPLAST: An Aerosol Spray for surface pain, burns and abrasions; Obs. & Gyn. use.

Eaton Laboratories **Booth No. 53**
Norwich, New York
Furacin® (brand of nitrofurazone) Cream aids cervical and vaginal tissue toward a rapid return to a healthy, normal state in the postpartum period; safely controls cervicovaginal infection in the puerperium, prevents chronicity; averts infection and delayed healing of cervix and episiotomy wound; reduces discharge, irritation and maloder; increases postpartum comfort.

Emanem Laboratories, Inc. **Booth No. 30**
Chicago, Ill.
DUTEX is a retention douche. The retention principle is an entirely new concept. DUTEX gradually distends the vaginal folds and exposes the entire vaginal vault to the solution. DUTEX is an important new treatment for trichomonas vaginitis, moniliasis and nonspecific vaginitis.

Encyclopaedia Britannica, Inc. **Booth No. 41**
Detroit, Mich.
ENCYCLOPAEDIA BRITANNICA AGAIN HAS BEEN ACCLAIMED THE STANDARD OF THE WORLD IN THE ENCYCLOPAEDIA FIELD. OUR LATEST EDITION WILL BE ON DISPLAY. REPRESENTATIVES ON DUTY: T. ELLIOTT AND P. JOHNSON.

Ferndale Surgical, Inc., Division
J. F. Hartz Company **Booth No. 65**
Ferndale, Mich.

Geigy Chemical Corporation **Booth No. 60**
Yonkers, N. Y.

Geigy Pharmaceuticals cordially invites Members and Guests of the Association to visit its technical display. Its original contributions to modern therapy of cardiovascular, rheumatic, psychiatric and metabolic disorders will be presented by representatives in attendance.

Gerber Products Company **Booth No. 34**
Fremont, Mich.

NEW! Gerber MODILAC . . . A complete formula for infants. Gently processed to conserve nutritional values, it has true milk color and flavor. Modilac *is* milk adapted to the infant's physiologic requirements by the addition of a selected carbohydrate, replacement of butterfat with corn oil and supplementation with needed vitamins. Ask for complete information.

Gray Manufacturing Company **Booth No. 8**
Hartford, Conn.

Hack Shoe Company **Booth No. 2**
Detroit, Mich.

We can and will display shoes designed with your prescription in mind but we can't show the type of careful fitting, the ethical considerations, the feeling for the niceties of the patient-doctor relationship which have made the HACK SHOE COMPANY the choice of Doctors of Medicine over the past forty-four years . . . whenever a patient requires proper shoes, correctly fitted.

G. F. Harvey Company, Inc. **Booth No. 82**
New York, N. Y.

The G. F. Harvey exhibit features Paremycin Elixir and Fungacetin preparations.

Paremycin Elixir, "the duoclassic antidiarrheal," provides an exclusive combination of tincture of opium and neomycin sulfate in a non-chalky, deliciously banana-flavored elixir.

Fungacetin Ointment, Liquid, and Powder afford unique topical antifungal actions through a self-regulating and completely non-irritating chemoenzymatic mechanism.

Health Insurance Council **Booth No. 77**
New York, N. Y.

Our exhibit is designed to provide general information on health insurance as underwritten by insurance companies. In addition, it also makes available information on uniform claim forms for use by doctors and hospitals in support of health insurance claims.

H. J. Heinz Company **Booth No. 20**
Pittsburgh, Pa.

HEINZ BABY FOODS announces these new varieties: Pineapple Juice with vitamin C added; five attractively packaged and newly formulated pre-cooked cereals; High Meat Dinners—Chicken a la King and Chicken with Rice. Convenient SCREW-ON caps are on most Heinz Baby Foods now.

New literature—A B C's for Baby's Mealtime—revised baby food lists.

Holland-Rantos Company, Inc. **Booth No. 21**
New York, N. Y.

The H-R exhibit will feature:

. . . Antimycotic (non-messy) *HYVA Gentian Violet Vaginal Tablets;*

. . . *NYLMERATE Jelly and Antiseptic Solution Concentrate* for vaginal trichomoniasis and mixed infections;

. . . *HOLLANDEX Silicone Ointment with Natural Vitamins A & D*—for neuro- and contact-dermatitis, decubitus ulcers, diaper rash, minor superficial skin disorders;

. . . *Special KOROMEX A*—for use when "jelly-alone" is indicated for conception control;

. . . *Contouring KORO-FLEX Diaphragms* (facilitate correct placement); standard *KOROMEX Jelly, Cream, Diaphragms and Sets.*

G. A. Ingram Company **Booth Nos. 85-86**
Detroit, Mich.

Johnson & Johnson **Booth No. 35**
New Brunswick, N. J.

Johnson & Johnson will display the latest improvements in surgical dressings, as developed by the Johnson & Johnson Research Laboratories. Several recent outstanding additions to the Baby Products line will be shown. Other products, designed for your office, hospital, or patient use, will be displayed. You will find well-informed representatives pleased to discuss these products or provide information on any other items made available by the world's largest manufacturer of surgical dressings and baby products.

A. Kuhlman & Company **Booth No. 37**
Detroit, Mich.

The A. Kuhlman Company will feature the Ambu Emergency Rescue Breathing Kit—a resuscitator that can be used with oxygen or air plus a portable suction pump. Not a second is lost on assembly or connections to electricity or compressed gases. Lightweight, compact, rugged, always ready for action, the Ambu is so simple almost anyone can use it to save a life.

Lederle Laboratories **Booth No. 90**
Pearl River, N. Y.

You are cordially invited to visit the Lederle booth where our medical representatives will be in attendance to provide the latest information and literature available on our line.

Featured will be DECLOMYCIN® Demethylchlortetracycline, the most recent contribution to broad-spectrum antibiotic therapy, ARISTOCORT® Triamcinolone, the highly effective, well tolerated corticosteroid, and other products of Lederle research.

Eli Lilly & Company **Booth No. 92**
Indianapolis, Ind.

You are cordially invited to visit the Lilly exhibit located in Booth No. 92. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

J. B. Lippincott Company **Booth No. 32**
Philadelphia, Pa.

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

P. Lorillard Company **Booth No. 66**
New York, N. Y.

P. Lorillard Company invites you to visit the KENT Cigarette exhibit.

We are presenting the Story of KENT Cigarettes. You will learn why KENT satisfies your appetite for a real good smoke, every time.

KENT uses only the finest natural tobaccos for true tobacco taste. And KENT's famous Micronite filter has a free and easy draw so KENT's good tobacco taste comes right through to you.

A table cigarette box with your signature in gold will be a pleasant souvenir of your visit to the convention.

Maico Hearing Service **Booth No. 87**
Detroit, Mich.

The new Maico Hearing Aid weighing less than one-half ounce is so small that the entire unit consisting of transmitter, microphone, receiver, battery and ear mold is worn in the ear. A complete line of instruments to take care of cases from the borderline to the profoundly deaf.

Ninety per cent of all precision hearing test instruments used in America by ear physicians are Maico.

Maltbie Laboratories Division
Wallace & Tiernan, Inc. **Booth No. 22**
Belleville, N. J.

Maltbie Laboratories announces an entirely new chemical entity, DORNWAL, for treatment of anxiety and tension without causing drowsiness. Also featured are: CALDECORT, antifungal antibacterial, anti-inflammatory dermatologic ointment; DESENEX, for athlete's foot; NESACAINE, a safe, potent and rapid-acting local anesthetic; CHOLANS, for hepato-biliary dysfunction; and CALDESENE MEDICATED POWDER for diaper rash.

Marion Laboratories, Inc. **Booth No. 43**
Kansas City, Mo.

One DUOTRATE Plateau CAPsule morning and evening resulted in a dosage decrease of 878 nitroglycerin tablets per week for a group of fifty anginal patients.

Information relating to the various potencies and combinations of DUOTRATE Plateau CAPS, as well as a complete reprint of the above study are available at the Marion booth.

Marshall Erdman & Associates, Inc. **Booth No. 6**
Madison, Wis.

ERDMAN MEDICAL BUILDINGS

Erdman Prefabricated Medical Buildings are the result of years of experience in the field of design, manufacturing and construction. No other company has had as extensive experience in this field. Over 300 doctors are now practicing in Erdman-built Medical Buildings. Experienced Architects, Engineers and Construction Superintendents of the Erdman Company will design, manufacture and build your Medical Building from the land-planning stage until you open the door into your own office.

Contact Marshall Erdman & Associates, Inc., Madison, Wisconsin, before you build.

S. E. Massengill Company **Booth No. 49**
Bristol, Tenn.

Best wishes from Massengill to the Michigan State Medical Society for a most successful meeting. Should you desire, Massengill service representatives will be on hand at the Massengill booth to discuss with you any Massengill product in which you are interested. The S. E. Massengill Company and its service representatives would like to cooperate, in any way possible, to make your meeting a complete success.

McNeill Laboratories, Inc. **Booth No. 79**
Philadelphia, Pa.

Members of the Michigan State Medical Society are cordially invited to visit our Booth No. 79, Mr. W. J. Warzybok in charge. Products to be featured are: GRIFULVIN, Butisol Sodium and Parafon.

Mead Johnson & Company **Booth No. 89**
Evansville, Ind.

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.

Medco Products Company **Booth No. 11**
Tulsa, Okla.

Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a SINGLE Three-Way Sound Applicator.

The MEDCO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Medical Arts Supply Company **Booth No. 80**
Grand Rapids, Mich.

Medical Arts Supply Company will show specialized Medical equipment manufactured by Air-Shields, Inc., namely the Ambu-Resuscitator and Foot Pump. Also the new dia-pump compressor aspirator; Ritter equipment, Universal table, Castle type eight lamp, and Liebel-Flarsheim medical equipment.

Medical Protective Company **Booth No. 94**
Fort Wayne, Ind.

As the "No. 1 Malpractice Insurer" (*Medical Economics,* February 3, 1958), The Medical Protective Company offers unexcelled coverage. With exceptional proficiency in defense, so essential to the Doctor's protection today, its experience in successfully handling 80,000 claims and suits during sixty-one years of Professional Protection Exclusively is unparalleled in the professional liability field.

Merck Sharp & Dohme **Booth No. 28**
Philadelphia, Pa.

'DIURIL' and 'HydroDIURIL', orally effective, nonmercurial diuretic-antihypertensive agents are featured at the Merck Sharp & Dohme booth. More clinical evidence exists for these potent agents than for all other diuretic-antihypertensives combined.

Technically trained personnel will be present to discuss these and other subjects of clinical interest.

Wm. S. Merrell Company **Booth No. 23**
Cincinnati, Ohio

MER/29, a dramatic new inhibitor of cholesterol biosynthesis will be featured. With MER/29 it is possible to reduce both serum and tissue cholesterol levels with one small capsule daily. Clinical results suggest important medical implications of interest to every practicing physician. Merrell representatives will be pleased to discuss with you the exciting facts about MER/29.

Merrill Lynch, Pierce, Fenner & Smith **Booth No. 47**
Grand Rapids. Mich.

Merrill Lynch's exhibit consists of an eight foot high panel depicting the various services available without charge or obligation to the general public. These include three write-ups on hundreds of securities and educational lectures, courses, and movies about the brokerage business. A counter in front will be provided with many booklets on the brokerage business.

Michigan Bell Telephone Company **Booth No. 67**
Detroit, Mich.

Michigan Bell will demonstrate the latest in efficient, compact telephone equipment and services for the modern office. Included will be the "Call Director" telephone and the new Dialaphone—which automatically dials up to 850 numbers at the push of a button.

Also featured will be the new "Princess" phone with the built-in night light.

Michigan Medical Service **Booth No. 3**
Detroit, Mich.

You are cordially invited to visit our booth to obtain current information regarding Michigan Medical Service (Blue Shield). Our representatives will gladly visit

with you and answer any questions you may have with regard to your Blue Shield Plan.

Milex Products **Booth No. 42**
Oak Park, Mich.

Milex Company is pleased to announce the release of a new Guide for Teen-Agers and a new product in Infertility. Also on exhibit will be other unique specialties as: Milex Folding, Cube and Inflatable Pessaries, Trimo-San Gel for vaginal fungal infections, Amino-Cerv Gel a postoperative and cervicitis treatment gel—Marital and Menopause Guides and cancer detection unit.

MSMS Life, Health and Accident Insurance Program **Booth No. 39**
Lansing, Mich.

You are cordially invited to stop at Booth No. 39 and discuss the MSMS Life, Health and Accident Insurance Program.

Representatives of the MSMS carriers will be present to answer questions concerning your MSMS group coverage.

Wm. R. Niedelson Company **Booth No. 75**
Detroit, Mich.

For those interested in accuracy in basal metabolic studies, and pulmonary function tests, the Jones "AIR BASAL" will be demonstrated.

If you have a problem in x-ray, visit our booth and discuss it with our technical staff.

PROFEXRAY literature and specifications will be available, as well as the newest in x-ray accessories.

Hermien Nusbaum & Associates **Booth No. 14**
Chicago, Ill.

You are cordially invited to visit our booth and examine the following items of interest to physicians for their own families as well as for patient and institutional use:

EVENFLO infant feeding line consisting of glass and boilable plastic bottles; preemie and other types of nipples and feeding equipment. FOUNTAIN SPOON: no muss or fuss dipping into food and removing excess. INFANSEAT: Feeding chair; safe car-seat: baby carrier from birth to one year. CUDDLESEAT—Convenient carrier for toddler.

Ortho Pharmaceutical Corporation **Booth No. 40**
Raritan, N. J.

At Booth No. 40 ORTHO is introducing a new monilicidal vaginal cream, SPOROSTACIN Chlordantoin Cream. This emollient white cream contains the unique chemical, chlordantoin, which, because of its structure, has the unusual ability to penetrate the monilial membrane. Clinically proved, SPOROSTACIN Cream is the treatment of choice in monilial vaginitis.

Parke, Davis & Company **Booth Nos. 50-51**
Detroit, Mich.

Medical Service members of our staff will be in attendance at our booth to discuss important Parke-Davis specialties which will be on display.

Pet Milk Company **Booth No. 91**
St. Louis, Mo.

We shall be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and INSTANT "Pet" Nonfat Dry Milk for special diets.

Pfizer Laboratories **Booth No. 15**
Brooklyn, N. Y.

The Pfizer Laboratories' display has been specifically arranged for your convenience and to give you the maximum in quick service and product information. To make your visit worthwhile, technically trained Medical Service Representatives will be on hand to discuss with you the latest developments in Pfizer research.

Procter & Gamble Company **Booth No. 31**
Cincinnati, Ohio

Ivory Soap (Procter & Gamble) offers a series of time-saving leaflet pads for doctors, each pad containing fifty identical tear-out sheets. These sheets, which may be given to patients, contain routine instructions covering six different topics. There are also samples of other free, helpful material prepared especially for physicians.

Mrs. Christyne Schwab in charge.

Professional Management **Booth No. 84**
Battle Creek, Mich.

PM

Professional Management—

A complete Business Service for the Medical Profession. The trade mark PM is a brand of distinction which identifies Professional Management offices affiliated with Black & Skaggs Associates, Inc., of Battle Creek, Michigan. It assures PM clients that the knowledge, experience and integrity of the oldest and largest such firm in the country are at their command.

Those in attendance at the MSMS Convention are cordially invited to stop at Booth No. 84 and meet the experienced PM Executives there.

Purdue Frederick Company **Booth No. 62**
New York, N. Y.

The Purdue Frederick Company will present:

Athrombin-K: The first potassium salt of Warfarin. Retains all clinical advantages of Warfarin therapy. 25 per cent less costly.

Senokot: Constipation corrective. Concentrated total senna glycosides which activate Auerbach's plexus, initiate normal neuroperistalsis.

Arthropan: New rapidly absorbed choline salicylate, producing anti-inflammatory, analgesic, antipyretic effects in short time without gastric irritation.

Pharycidin: The first triple-action throat medication. Provides medical and systemic analgesia plus antibacterial action through gargling and swallowing.

Cerumenex: Cerumenolytic for the quick removal of excessive cerumen. Contains Cerapon, a new surfactant, with propylene glycol and chlorbutanol.

Randolph Surgical Supply Company **Booth No. 13**
Detroit, Mich.

Randolph Surgical will display many new products, one which has created great interest, The Bird Residual Breather for Pulmonary disorders.

R. J. Reynolds Tobacco Company **Booth No. 52**
Winston-Salem, N. C.

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL. WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King Size Cigarettes.

A. H. Robins Company, Inc. **Booth No. 17**
Richmond, Va.

Robins exhibit is featuring the *Dimetane Expectorant* formulations for control of allergy-associated coughs; *Phenaphen* and *Phenaphen* with *Codeine,* which provide the synergistic benefits of analgesia and sedation; *Robaxin,* specific for skeletal muscle relaxation; *Robaxisal,* new formulation combining the relaxant action of Robaxin with the pain relieving action of aspirin; and *Pabalate* (plain, sodium-free or with hydrocortisone), indicated in rheumatoid arthritis and its variants.

Roche Laboratories **Booth No. 74**
Nutley, N. J.

LIBRIUM—a new, unique and versatile therapeutic agent which is virtually specific for the relief of irrational fear, anxiety and tension.

MADRIBON—is a completely new, low-dosage sulfonamide of particular value in the treatment of bacterial infections, especially respiratory infections.

TIGAN—a new, specific antiemetic agent effective both prophylactically and therapeutically against most clinically significant types of nausea and vomiting.

J. B. Roerig & Company **Booth No. 71**
New York, N. Y.

The Roerig Booth No. 71 will feature a new product, MAXIPEN, The Orally Maximal Penicillin. MAXIPEN provides substantially higher blood levels than older oral forms, maximal absorption, maximal flexibility, and maximal oral indications.

Wm. H. Rorer, Inc. **Booth No. 48**
Philadelphia, Pa.

Features: MAALOX, the non-constipating, pleasant tasting antacid, and the new MAALOX NO. 2 (double strength) TABLET. Other product highlights are ASCRIPTIN, a rapid-acting professional salicylate, FERMALOX, a buffered iron preparation, and PAREPECTOLIN, a pleasant tasting antidiarrheal preparation for patients of all ages. Representatives will be on hand to answer questions about these and other Rorer products.

Ross Laboratories **Booth No. 46**
Columbus, Ohio

Ross Laboratories, who also manufactures Similac, features SIMILAC WITH IRON, a new prepared infant formula supplying 12 mg of ferrous iron per quart of formula. SIMILAC WITH IRON is designed for use at the time exogenous iron is indicated in infancy to support the usual diet and to provide prophylaxis against iron deficiency during the period of greatest incidence, from 6 to 18 months of life. Some special indications for use are following placental or traumatic blood loss, for prematures and twins, for the pallid, irritable, anorectic infant with an unsatisfactory blood picture and following prolonged infection or diarrhea.

Rupp & Bowman Company **Booth No. 88**
Highland Park, Mich.

Welcome again, members of the Michigan State Medical Society. Please stop in and visit with our representative.

W. B. Saunders Company **Booth No. 1**
Philadelphia, Penna.

Bridegroom Rozema will be on hand with the complete Saunders line. A few of the newer clinical titles include: Greenhill Obstetrics; Frederick and Towner: The Office Assistant; Mulholland et al: Surgical Management; Schaffer: Diseases of the Newborn; Leavell & Thorup: Clinical Hematology; Bakwin & Bakwin: Behavior Disorders in Children; and Williamson: Office Diagnosis.

Schering Corporation **Booth No. 19**
Bloomfield, N. J.

The members of the Michigan State Medical Society are cordially invited to visit the Schering booth. Products featured will be Fulvicin, the first oral antifungal antibiotic for ringworm; Alpen, new synthesized oral penicillin; Naqua, effective new oral diuretic—and antihypertensive; and Diloderm, first chlorinated steroid with specific topical effectiveness.

Julius Schmid, Inc. **Booth No. 12**
New York, N. Y.

An interesting and informative exhibit featuring IMMOLIN Vaginal Cream-Jel for use without a diaphragm; RAMSES Flexible Cushioned and BENDEX Disphragms; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid for vaginal trichomoniasis therapy; and XXXX (FOUREX) Skin Condoms, RAMSES, SHEIK and ESQUIRE Rubber Condoms for the control of trichomonal re-infection.

G. D. Searle & Company **Booth No. 58**
Chicago, Ill.

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Featured will be our new Aldosterone-Blocking Agent for edema or ascites, Aldactone.

Smith, Kline & French Labs. **Booth No. 69**
Philadelphia, Pa.

Our representatives cordially invite you to discuss with them: (1) 'Ornade' Spansule® capsules, the unique oral nasal decongestant for treating symptoms of hay fever and other allergies; (2) Eskatrol® Spansule® capsules, for daylong control of appetite and relief of the emotional stress that causes over-eating in "problem" overweight patients; (3) Fortespan® capsules, high potency multivitamins—therapeutic formula—in Spansule® sustained release capsules; and (4) 'Prinadol', a potent narcotic agent for the relief of pain.

Smith, Miller & Patch, Inc. **Booth No. 5**
New Brunswick, N. J.

SMITH, MILLER & PATCH, Inc. N. Y., N. Y. features: VITRON-C . . . a new oral hematinic, clinically proven effective in treating iron deficiency anemia in patients with iron intolerance, gastrointestinal irritability or ulcerative disease. VITRON-C offers high therapeutic levels of iron with maximum toleration.

BISTRIMATE—First choice in the treatment of "Chronic Sore Throat". Recent reports on a group of patients indicate 89.1 per cent complete or partial relief. In certain dermatoses of suspected viral origin, no serious toxicity to BISTRIMATE has been noted in over thirteen years' use.

Company representatives will welcome the opportunity to discuss other specialties; LIPOTRIAD—a nutritional supportive proven of value in the treatment of degenerative retinopathies and KONDREMUL, the micromulsive bowel regulator.

E. R. Squibb & Sons **Booth No. 36**
New York, N. Y.

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the Medical Profession in new products or improvements in products already marketed.

At Booth No. 36, we are pleased to present up-to-date information on these advances for your consideration.

The Stuart Company **Booth No. 38**
Pasadena, Calif.

The Stuart representatives extend a cordial invitation to physicians attending this meeting to visit their booth and discuss with them the latest developments of The Stuart Company. The products to be featured are MYLICON—a new product for gastric distress, and VITA-DRINK—a new pleasant-tasting multivitamin dosage form.

Testagar & Company **Booth No. 61**
Detroit, Mich.

The professional service representatives of Testagar & Co., Inc., will be happy to pass on the latest information on the use of Heparin Sodium (Hepathrom) as an office procedure in the treatment of acute and chronic atherosclerotic conditions; as a treatment for peripheral artery diseases. Information is also available on the use of Heparin (Hepathrom) as a prophylactic in coronary artery diseases. Information, samples and literature will also be available on Felsules (Chloral Hydrate—Fellows). The latest literature stresses the value of Chloral Hydrate in the geriatric patient.

S. J. Tutag & Company **Booth No. 44**
Detroit, Mich.

S. J. Tutag & Company introduces a new antiobesity agent for prompt and emphatic hunger control . . . with little or no central nervous system stimulation.

Cydril is a new chemical componnd that possesses anorectic action with low toxicity. *Cydril* is available in two forms, tablet and the sustained-release Tutag Granucap.*

Adults and children over twelve years, one *Cydril* tablet three times daily, preferably one-half hour before meals, or one *Cydril* Granucap* in the morning, or as directed.

*Granucap—T.M. Reg. U.S. Pat. Off.

The Upjohn Company **Booth No. 57**
Kalamazoo, Mich.

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

U. S. Vitamin Corporation **Booth No. 64**
New York, N. Y.

On display—ARLIDIN—a specific safe vasodilating, vasorelaxant drug which effectively increases blood flow to the brain, inner ear, and eye. In arteriosclerosis obliterans, diabetic vascular disease, thromboangiitis obliterans and ischemic ulceration, ARLIDIN increases walking ability; promotes healing of ulcers; alleviates pain, ache, spasm and numbness.

Wallace Laboratories **Booth No. 9**
New Brunswick, N. J.

The representatives of Wallace Laboratories will look forward to discussing the drug, DEPROL, for the treatment of depression at Booth No. 9. DEPROL consists of MILTOWN plus benactyzine, a specific and effective formula for treating acute and chronic depressions. The drug is safe, side effects are few and easily controlled and it has been clinically proven in thousands of patients.

Warner-Chilcott Laboratories **Booth No. 81**
Morris Plains, N. J.

Nardil—Safe, new, rapidly effective treatment for true (endogenous) depression, restores depressed and despondent patients to reality with no toxic effect on blood, liver or kidneys.

Gelusil—the physician's antacid—for the relief of gastric hyperacidity and management of peptic ulcer. Clinically superior because it is nonconstipating. Ideally suited for the peptic ulcer patient because it contains no laxative which might cause irritation and hypermotility.

Westwood Pharmaceuticals **Booth No. 55**
Buffalo, N. Y.

Westwood invites physicians to stop by their booth to discuss their unique dermatological products:
Fostex Cream—Fostex Cake—Sebulex—Lowila Cake—Lowila Emollient—Alpha-Keri.

These products are particularly suitable for personal use by physicians and their families, who may be plagued with dandruff, acne, dry itchy skin and sensitivities to soap. Register, so that we may send prescription units to your home.

White Laboratories **Booth No. 33**
Kenilworth, N. J.

White Laboratories' exhibit features SORBOQUEL—the result of a decade of laboratory experimentation and over five years of clinical confirmation.

SORBOQUEL, a totally new agent for truly effective control of both chronic and acute diarrhea, has been demonstrated effective in 85 per cent of chronic and 94 per cent of acute cases of diarrhea.

Winthrop Laboratories, Inc. **Booth No. 72**
New York, N. Y.

pHisoAc, a new therapeutic topical cream for acne and related skin blemishes, contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent, and hexachlorophene 0.3 per cent, in a fat-free, quick drying flesh toned base. It is virtually odorless, spreads smoothly and evenly and can readily be washed off with water. pHisoAc Cream is keratolytic also removes excess oil and helps dry and degerm the skin, unblock clogged pores, and remove blackheads.

Convention Sidelights

When the political spotlight was on Chicago for the Republican National Convention, a physician had a unique honor. Walter H. Judd, M.D., Minnesota Congressman, was the keynote speaker, becoming the first physician to serve in this capacity.

Edward R. Annis, M.D., of Miami, representing the American Medical Association, triggered a verbal battle before the Platform Committee of the Democratic Party at its July 5 session when he charged that National Chairman Paul Butler already has stated that the 1960 platform will endorse a bill to tie health care benefits for the aged to the social security system. This, Doctor Annis said, would be socialism. "Your mind has been made up for you," Doctor Annis asserted. "Don't force doctors to fight within the party or force us to leave the party."

ANNUAL REPORT OF THE COUNCIL

1959-1960

The Council met as a whole every month during the past year, holding eleven meetings covering thirteen days (prior to September 26, the date of the 1960 Annual Session convened); over 900 items were considered by the full Council.

Membership

Membership as of June 30, and as of December 31, from 1935 to 1960 is indicated in the following chart:

	1935	1945	1955	1957	1958	1959	1960
June 30	3,410	4,425	5,503	6,104	6,175	6,461	6,660
December 31	3,543	4,686	6,109	6,504	6,638	6,652	

The Scientific Side

The Michigan State Medical Society has as its prime purposes "to encourage among members of the medical profession the interchange of views on all phases of professional advancement, and thus better to equip each member of the profession to serve society and to promote the health of the people"; . . . "to maintain a program of scientific education for the members of the society keyed to the constantly developing discoveries in the field of medicine; and to foster, encourage, and coordinate postgraduate facilities for the medical profession as a whole."

The scientific achievements of the Society continue to be its greatest service to the public and its most valuable benefit to its members. During the past year, they included:

(a) The high quality program of the MSMS Annual Session which in September, 1959 was held in Grand Rapids and attracted a registration of 3,115, including 1,516 M.D.'s.

(b) The Michigan Clinical Institute, the refresher course which received great praise for its superb scientific program last March. Attendance reached 2,975, including 1,511 M.D.'s. The contribution of Smith, Kline & French Laboratories with its closed circuit color television program, and the American Cyanamid Company which sponsored colored movies on surgery, added immeasurably to the success of this educational meeting.

(c) The extra-mural postgraduate courses sponsored by MSMS, the University of Michigan Medical School and Wayne State University College of Medicine aided in maintaining the Society's high scientific standing.

(d) Following through on another Purpose of the Society: "To disseminate advances in medical research among the profession generally by the issuance of scientific publications," THE JOURNAL of the Michigan State Medical Society continues to hold its position as a leader among State Medical Journals. THE JOURNAL MSMS is truly an outstanding scientific publication, of which all members may well be proud.

(e) The State Society must continue to commend its fifty-five component societies for their quality scientific programs, including those held at regular meetings, at special clinics, and on scientific "days."

Finance

Every thirty days the Society's financial picture is reviewed by The Council, and periodically the Finance Committee meets to advise The Council on particular fiscal matters. The Auditor's report for 1959 plus the budgets of the Society for 1960, were published in JMSMS, March 1960, beginning on page 469. Members are invited to review the financial status of their State Medical Society and suggestions for improvement are always appreciated.

The income from membership dues is allocated to the various activities of the Michigan State Medical Society as instructed by the Finance Committee and The Council in January. Through June 30, 1960 the total income of the Society from all sources has been $589,265.69 and expenses, including $93,677.74 in addition to the new headquarters building, have totaled $364,320.05. A brief financial résumé of each of the MSMS activities, as of June 30, 1960, is presented in the accompanying table:

Account	On Hand 12/1/59	Income to 7/1/60	Expenses to 7/1/60	Balance on Hand 7/1/60
General Fund	$152,033.93	$159,194.38	$122,335.33	$188.892.98
Annual Session	.....	26,216.21	4,278.74	21,937.47
Michigan Clinical Institute	.....	14,215.00	13,655.51	559.49
THE JOURNAL	.....	85,286.79	73,625.95	11,660.84
Public Education	19,651.34	52,817.30	23,238.09	49,230.55
Public Service	8,683.54cr.	25,657.59	8,147.13	8.826.92
Professional Relations	9,134.49cr.	35,617.00	20,863.48	5,619.03
Public Education Reserve	50,000.00	.....	.....	50,000.00
Rheumatic Fever Control	3,275.12	2,180.67	2,435.82	3,019.97
Contingent Fund	.....	8,515.49	.....	8,515.49
Building Fund	4,936.60	.....	2,062.26	2,874.34
MSMS Headquarters Fund	125,188.04	85,887.52	93,677.74	117,397.82
New Headquarters Under Construction (Equity)	159,334.14	93,677.74	.....	253,011.88
TOTALS	$496,601.14	$589,265.69	$364,320.05	$721.546.78

For the first seven months of the current fiscal year since December 1, 1959, 5630.5 members have paid AMA dues of $140.762.50. This amounts to 98.1 per cent of the dues paying members of the Society. An up-to-date résumé of the financial status of the Society will be presented to the House of Delegates in September as a part of the Supplemental Report of The Council.

The Journal

In its fifty-eight years' history, THE JOURNAL of the Michigan State Medical Society has published a Number every month: the 700th issue will appear in December, 1960! The JOURNAL attempts to keep the membership informed on the progress of the State Society in scientific advance and in economic and political aspects as they affect the practice of medicine and the individual doctor.

The Publication Committee, as for some ten years, continued to assign each number of THE JOURNAL to a particular subject which during the past Society year covered heart and rheumatic fever, rural health, a number dedicated to the memory of Secretary L. Fernald Foster, M.D., cancer control, geriatrics, Michigan Medical Service, the MSMS Annual Session, a feature on the Kalamazoo Academy of Medicine, mental health, diabetes

detection, and the Michigan Clinical Institute. Also, published were three supplements: one containing Proceedings of the House of Delegates Session; another listing all committee personnel; and the third containing the directory of members of MSMS, of its Woman's Auxiliary, and of the Michigan State Medical Assistants Society; this supplement also reprinted the MSMS Constitution and Bylaws. The next Roster supplement will include an alphabetical index, for the greater convenience of our members who frequently must refer to this list.

Prior to publication, all editorials, written by the Editor, were scanned by the Editorial Board (Publication Committee) which is in charge of editorial policy. The editorials largely have been of a socio-economic nature in order to present to the membership the policy and program of the Society as established by the House of Delegates.

JMSMS was signally honored by the State Medical Journal Advertising Bureau Conference when it received top award for the excellence of its cover design.

Beginning January, 1960, THE JOURNAL adopted an entirely new "face"; its typography was improved and the layout of the entire book was modernized in order to make the publication not only more attractive in appearance but more easily read by members. Favorable comments from physicians indicate that these efforts met with general approval.

Your Editor is grateful for the help and fine suggestions he has received from MSMS Delegates, Officers, Councilors, and from many members, as well as from the executive staff, during the past year. While the Society can be proud of THE JOURNAL, the Editor's constant quest is to make it a better vehicle so that its goal, to disseminate advances in medical research among the profession generally, is more adequately and successfully achieved.

Organization

1. The President's Program of MSMS, inaugurated November 18 and approved by The Council, was unveiled at the County Secretaries-Public Relations Seminar on January 30, 1960. This is a five-year program to culminate with the centennial celebration of the Society in 1965 (a detailed report is being presented to the House of Delegates by President Darling).

A recommendation on this subject follows.

2. During the past Society year, The Council held monthly meetings, permitting all of its twenty-five members the opportunity to deliberate and decide on the numerous and grave problems which faced the Society.

3. Communication between the Councilors and Delegates was improved during the last year as the result of specific recommendations offered by Council Chairman H. J. Meier, M.D. and approved by The Council. These included suggestions to each Councilor that he add notes of explanation and interest when sending to Delegates copies of Council minutes; that the Councilors make periodic (quarterly) requests in writing to Delegates that they report on local problems and recommendations; that Councilors discuss verbally, or in writing, subjects and programs inaugurated by the State Society that might be controversial so that the Delegates have proper background; that component societies record with the MSMS Secretary such policy-making decisions, public relations activities, or any items of information the county society believes the rest of the component societies would benefit by, and thus contribute to the State Society.

The Councilor Conferences were continued as in the past, to gain advice of Delegates, Alternate Delegates, and component society officers, in advance of the House of Delegates Session on important matters on the agenda of that body.

A recommendation on this subject follows.

4. Mrs. W. G. Mackersie of Detroit was installed as President of the Woman's Auxiliary to the American Medical Association in Miami Beach last June. Full recognition is due this Michigan lady, the first from our State to receive this great honor.

A recommendation on this subject follows.

5. The Awards Dinner was held in Detroit on January 30 to recognize national medical and health leaders and organizations of Michigan which contributed outstanding service to better health of the citizens of this State. The awardees were:

Reed M. Nesbit, M.D., Ann Arbor, President, American Association of Genito-Urinary Surgeons; H. Marvin Pollard, M.D., Ann Arbor, President, American Gastroenterological Association; and Milton L. Sorock, M.D., Detroit, President, Johnston Surgical Society.

Miss Ella K. Longley, Ludington, Superintendent Paulina Stearns Hospital for conducting "This is Your Hospital," a weekly radio program, for six years; *Muskegon Chronicle* for reporting on polio immunization in general; and C. S. Mott, Flint, President of Mott Foundation, for many and valuable contributions to the health of his fellow men through philanthropy and personal dedication.

The following radio stations, for programming special public service broadcasts on health subjects: WAGN, Menominee; WBCK, Battle Creek; WBRN, Big Rapids; WDET, Detroit; WELL, Battle Creek; WLDM, Detroit; WMDN, Midland; WOAP, Owosso; and WWBC, Bay City.

6. The County Secretaries-Public Relations Seminar, held in Detroit on January 30-31, 1960, gave the State Society opportunity to impart valuable information on socio-economic matters to the elected leaders of MSMS and of the component societies. This is, indeed, a splendid leadership-training meeting.

7. The Residents-Interns-Senior Medical Students Conference again was featured during the Michigan Clinical Institute on March 10, 1960. This is the main contact of MSMS with the future doctors of the State.

8. The MSMS Workshop on Aging, held at Kellogg Center, East Lansing, on April 3, must be included in this section under Organization. The implementation of the following ten recommendations adopted at this Workshop is heartily endorsed by The Council as a prime necessary objective of the Society. The House of Delegates members and all the medical profession of Michigan are urged to enter vigorously into the work of achieving these objectives:

(a) Removal of compulsory retirement by industry and labor through voluntary and legislative action.

(b) Encourage and work for program to provide work opportunities for the aged.

(c) Encouragement of state and community governments to share the purchase cost of voluntary health insurance for those over 65 who need financial assistance.

(d) Participation by the medical profession in the preliminary meetings on local and state levels prior to the 1961 White House Conference on Aging.

(e) Encourage increasing cash benefits to those receiving Old Age Assistance.

(f) Exploring the possibility of including under OAA the "marginally indigent" person who is independent except for unusual trouble; and considering OAA as a possible mechanism for sharing of the premium cost of voluntary health insurance.

(g) Possible establishment of a privately financed plan comparable to the Federal Deposit Insurance Corporation (which guarantees bank depositors against loss) which would guarantee health insurance premium payments, in whole or in part as need dictates, for those over 65 who are unable to keep up such payments.

(h) Encourage pilot program for the construction of model housing units for the aged near a medical school so that scientific study could be given to the needs of the aged by faculty members. This could be done by private enterprise under present liberalized mortgage laws for this type of construction.

(i) Encourage an educational program calling for preretirement planning beginning at age 45.

(j) Place emphasis on a preventive medicine program to include periodic health appraisals; gathering of health data, control of communicable disease, improving patient care and rehabilitation in nursing homes through licensure, and the developing of chronic disease hospital units.

9. General meeting at Annual Session. In order to cut down the great number of meetings during the MSMS Annual Session, The Council recommends that a short General Meeting of the Society entitled "Officers Night" be held during the last meeting of the House of Delegates, which arrangement would be in accordance with the Bylaws, Chapter 8, Section 1. New officers will assume the responsibilities of their respective offices on this occasion.

A recommendation on this subject follows.

10. At the Annual Meeting of The Council in January, A. E. Schiller, M.D., Detroit, resigned as Council Chairman, due to health reason, but remained Councilor of the First District. H. J. Meier, M.D., of Coldwater, was elected as Chairman.

C. N. Hoyt, M.D., Port Huron, resigned as Councilor of the Seventh District effective September 26, 1960.

11. The fifty-five component societies continued during the past year to conduct necessary programs of in-service education and to provide leadership in community programs and communications to the public.

A recommendation on this subject follows.

12. As in the past, your State Society continued to render service to its components in obtaining speakers for meetings, giving advice on scientific, legal, and socio-economic questions, and in helping to solve administrative and ethical problems.

Contacts With Governmental and Voluntary Agencies

More and more the Michigan State Medical Society finds that contacts with both governmental and voluntary agencies are important though time-consuming activities.

Governmental Agencies

1. Prior to its public release, the University of Michigan Study of Hospital and Medical Economics (including Blue Cross-Blue Shield Plans) was previewed by MSMS representatives on June 29. This Study is being carried out at the request and with the approval of MSMS. It is financially sponsored by the Kellogg Foundation at a cost of $380,000.00.

2. The Council was ably represented at the Michigan Insurance Commissioner's Hearings in Detroit on May 24, 1960, and in Grand Rapids on May 27, 1960, at which the Blue Shield request for a rate increase was heard. The affirmative position taken by the State Society ably counteracted the aggressive stand of opponents of the rate increase and resulted in good publicity for the medical profession.

3. The proposal of the Michigan State Board of Pharmacy to permit the substitution of generic name drugs for trade name drugs was given considerable attention and resulted in this advice given by The Council to the State Board: "Because current practice permits substitution of drugs upon the individual approval of the prescribing physician, the Michigan State Medical Society does not believe the proposed rule of the Michigan Board of Pharmacy is necessary and supports the statement previously made by the former Chairman of the MSMS Council, A. E. Schiller, M.D."

4. Youth: the White House Conference on Children and Youth was attended by an official MSMS representative (Robert M. Heavenrich, M.D., of Saginaw, Chairman of the MSMS Child Welfare Committee) whose report indicates the importance to Medicine of this great gathering of interested personnel held every ten years at the call of the President of the United States.

5. Aging: the forthcoming 1961 White House Conference on Aging, also called by the President of the United States, has been preceded by Regional Conferences in this State as well as by the annual U-M Conference on Aging held in Ann Arbor last June. MSMS representatives testified at these planning conferences.

Official representatives of the Michigan State Medical Society also testified at the Senator McNamara Hearings on the Aged in Grand Rapids, November 16-17 and in Detroit, December 10-11; subsequently the State Commission on Aging requested MSMS to appoint an Advisory Committee to the Commission which was done.

6. The new printed revision of the Uniform Fee Schedule for Governmental Welfare Agencies was developed by the House of Delegates Permanent Advisory Committee on Fees and was distributed to all governmental agencies and personnel in December, 1959.

7. The attempt to open hospitals in the Wayne County area which are organized under the Community Hospital Law, to other than doctors of medicine was opposed by the Wayne County Medical Society and the State Society.

8. Questions of chiropody practice in Michigan resulted in the appointment of a special Ad Hoc Committee Concerning Practice of Chiropody. An early meeting of this MSMS Committee is planned with the Michigan State Board of Chiropody to receive such information as the Board wishes to present to the Michigan State Medical Society and to the Michigan Hospital Association.

9. The State Society took exception to the program of the U. S. Senate Committee Investigating Drugs, objecting that the scientific viewpoint was inadequately represented at these Hearings.

10. At the invitation of the Michigan State University, an MSMS representative attended several meetings to hear reports from MSU concerning its proposed third medical school; to date, these meetings have been merely exploratory in nature.

11. Your State Society continues to have beneficial contacts with other governmental agencies including (a) the Michigan Legislature and its bureaus and committees; (b) Michigan Department of Health with Commissioner A. E. Heustis, M.D., invited to all meetings of The Council; (c) the University of Michigan Medical School and Wayne State University College of Medicine with the Deans of each being invited to all meetings of The Council; (d) Michigan Crippled Children Commission; (e) Michigan Department of Public Instruction and its Office of Vocational Rehabilitation which refers many questions to the MSMS Arbitration Committee; (f) Michigan Department of Social Welfare; and (g) Michigan State Board of Registration in Medicine.

Voluntary Agencies

1. Monthly reports on the progress of Michigan Medical Service are made to The Council by President G. Thomas McKean, M.D.

2. Continuing coverage for spouses of deceased MSMS members in the Physicians Group Contact was recommended to Blue Cross by The Council. Michigan Hospital Service reported that, as much as it would like to make an exception for the spouses of MSMS members, its Executive Committee felt MHS would be subject to high criticism by other groups when it became known that this exception was made. If MHS adopted this policy in the future, it felt it must be granted to all covered groups.

3. The American Medical Association continues to be most helpful in numerous ways to your State Society and merits the interest and constant support of every MSMS member. The AMA is to be congratulated on sponsoring its Civil Defense Conference of November 7-8, a pre-planning Conference on Aging, April 22-23, the AMA Public Relations Institute, September 1-2, several legislative conferences, and its National Congress on Prepaid Health Insurance of May 13-14 on which the three MSMS representatives presented an excellent report to The Council May 18.

4. MSMS continues to encourage the Student Ameri-

can Medical Association on the national level and through its two Units in the medical schools of Michigan. More guidance by individual doctors of medicine for the future physicians of the nation is needed and earnestly invited.

5. Contacts with the Visiting Nurses Association included the MSMS recommendation that the VNA continue to be utilized by social welfare departments and be paid from public assistance funds.

6. An MSMS representative attended the National Blue Shield Professional Relations Conference in Chicago and presented a fine report to The Council on May 18.

7. Mutually beneficial contacts continue to be maintained with the Michigan Heart Association, Michigan Hospital Association, Michigan State Dental Association, Michigan State Nursing Association, Michigan League for Nursing, Michigan State Pharmaceutical Association, Michigan Hospital Service, Michigan Medical Service, Michigan Branch of Health Insurance Council, Michigan Health Officers Association, and the growing Michigan Association of the Professions now numbering 3,326 members.

Committees

A total of ninety-three meetings of Committees of the House of Delegates, of MSMS, and of The Council were held during the past year (up to August 31, 1960). This does not include nine meetings of liaison committees to which MSMS sends official representatives. The core of MSMS progress is its committee structure and activity and the members who make up these important groups deserve unqualified praise for their unheralded contributions to the State Society and to all members.

Special commendation goes to the Relative Value Study Committee which during the past year held seven meetings encompassing 11 days (mostly Saturdays and Sundays), which took these busy medical practitioners from busy practices in their home communities.

To save the time of the House of Delegates Reference Committees, the Annual Reports of Committees of The Council are integrated into this Annual Report of The Council:

1. *Permanent Conference Committee with Michigan Hospital Association, Michigan League for Nursing and Michigan State Nurses Association.*—There was general agreement that the number of regular meetings could be reduced without interfering with the efficiency of the combined committee. It was further agreed that special meetings could be called, if necessary, at the direction of the general chairman. The meetings were well attended by the representatives of the different component groups. The Statement of Purpose and Organization of the Permanent Conference Committee was redefined. Reports on legislation were discussed as was the report on the Institute of Nursing Practice. A study on the utilization of practical nurses is to be carried out with benefit to all groups. It was agreed that a unified effort of all groups through their public relations counsel or representative would bring about a better educational program to keep the public informed on health care needs. The Blood Test Bill, concerning alcoholic contents of blood, was also thoroughly discussed and recommendations were made.

There was also some discussion during the year concerning personnel policies. Cognizance was also taken of the fact that the government is withdrawing its support from certain schools for practical nursing.

2. *Michigan Chairman of the Medical Education Foundation.*—It is encouraging to note the $10.00 voluntary contribution to the A.M.E.F. asked of each member, produced $18,736.23 last year. This is a 71 per cent increase over the $10,874.83 donated in 1958. Also, the number of contributors increased to 499 which is twice as many who gave the year before. Still this represents only 8 per cent of our membership, and places us forty-first among the other states in the percentage of contributors. In the total amount given we stand fourteenth.

In direct gifts to our medical schools, Michigan received $49,621.77 from 1,279 contributors and Wayne received $17,616.00 from 356 individuals. Our neighboring states, Indiana, Ohio, Illinois, and Wisconsin, all have a higher percentage of their membership who contributed. Indiana, with a $10.00 assessment and a smaller membership than ours, produced $51,661.00. Illinois, with a $20.00 assessment, produced over $200,000.00.

In view of the fact that only 8 per cent of our membership made a contribution, I believe the only fair method that will produce Michigan's fair share of the monies needed for medical education is through an increase of $10.00 in dues earmarked for the AMEF. This would produce approximately $64,500.00 which represents more nearly what the physicians of Michigan should contribute to the AMEF.

3. *The Liaison Committee with the Michigan Chapter of the Health Insurance Council.*—There have been three meetings since this Committee was established; April 29 and December 16, 1959, and May 4, 1960. Many matters of mutual interest were discussed, including three specific problems involving Physicians and Insurance Companies which were satisfactorily solved. Uniform Claim Report Forms and suggestion that County Mediation Committees help arbitrate any problems arising were recommended to The Council and were approved by it. The ground work for future action on Forand-type legislation has been laid and mutual responsibility acknowledged. Periodic meetings are planned.

4. *Rural Medical Service Committee.*—The Committee met February 3, 1960. The program of the National Rural Health Conference to be held February 25 to 27, in Grand Rapids, was reviewed and the members of the Committee volunteered to take an active part in stimulating attendance to this National meeting.

Some difficulty has been encountered in obtaining a Committee from the Society of Architects to meet with the Committee from this group, but this we are told has now been formed and is available for consultation for clinic and hospital buildings.

The Placement Program was reviewed, and it was pointed out that during the past 6 years, 345 doctors have received assistance in locating in Michigan. The Upjohn Company is still providing financial assistance to the Michigan Health Council for this Program.

Plans were discussed and set up for the Michigan Health Conference in 1961.

The Medical Careers Program was reviewed and considerable progress has been noted. There was a motion that each county society be requested to designate a committee to co-operate with high schools in the county during Career Days. It seems important that the doctors urge an opportunity to be heard at "Career Day Programs."

A Scholarship Loan Fund for Medical and Allied Students was discussed. This will be investigated further. The motion that the Michigan Health Council continue its fine efforts to establish a Scholarship Student Loan Fund for Health Career Students and other activities that will alleviate the shortage of students entering medical training and allied health professions was carried.

5. *Committee on Arbitration.*—The Arbitration Committee of the Michigan State Medical Society met on April 8, 1960, to consider two cases which were submitted by the Office of Vocational Rehabilitation, one involving reconstructive surgery to muscles and tendons of hand and the other a stapesdectomy. Five members of the Committee were present at the meeting and unanimously agreed that in both cases the fees were fair for the services rendered.

6. *MSMS Representatives: Liaison Committee to Michigan Society of Neurology and Psychiatry and Michigan Psychological Society.*—No meeting between the Liaison Committee and the Michigan Psychological So-

ciety took place during this past year. Inasmuch as some members of my Committee, as well as myself, are also members of the MSMS Committee on Mental Health, we have been kept up to date regarding the developments in the particular issues involved.

7. *Committee on Courses on Medical Economics and Ethics.*—We have had a most successful year, and pay ready tribute to the co-operative endeavors of the committee members, the speakers, the faculties and student bodies of our two medical schools.

Through the energetic leadership of Dean Scott, Professor Orten, and the Senior Medical Students, Howard Shapiro, Wayne State University Medical School, is now actively participating in our program. We have blended their lecture courses with the University of Michigan schedule of activities, giving special mention whenever the event occurred in Detroit.

Activities Schedule

1. 7/8/59, "Development of a Fee Schedule," by C. Howard Ross, M.D.
2. 7/15/59, "Professional Management," by Robert Kanuer and Tim Hogan.
3. 8/12/59, "The Doctor in Court," by Judge James R. Breakey, Jr.
4. 8/19/59, "Medical Replacement in Michigan," by R. W. Spalding, M.D.
5. 9/2/59, "Continuing Education in Medical Ethics and Economics," by William Hubbard, M.D., Dean, University of Michigan Medical School.
6. 9/16/59, "The Morality of Surgery," by Thurston Thieme, M.D.
7. 9/23/59, "The Doctor's Accounting System," by C. Howard Ross, M.D.
8. 10/14/59, "Ten Easy Lessons on How to Land in Court," by Lester P. Dodd, Attorney, MSMS
9. 11/6/59, "A History of Ethics," Student Faculty Assembly at Wayne State University Medical School, by C. Howard Ross, M.D.
10. 11/18/59, "Medical Manpower," by Albert Furstenberg, M.D., Dean Emeritus
11. 11/25/59, "A History of Ethics," by C. Howard Ross, M.D.
12. 12/4/59, "An Ethical Approach to Cancer in Geriatrics," Student Faculty Assembly at Wayne State University Medical School, by C. Howard Ross, M.D.
13. 12/6/59, "Fellow Practitioners and Sub-standard Healers," Student Faculty Assembly at Wayne State University Medical School, by Milton R. Weed, M.D.
14. 12/9/59, "Solo Versus Partnership," by Tim Hogan.
15. 12/16/59, General Practice Panel:
   (a) "Moderator with Introduction," by C. Howard Ross, M.D.
   (b) "General Practice in a Metropolitan Area," by Russell Fenton, M.D.
   (c) "The General Practitioner and the Specialist," by F. P. Rhoades, M.D.
   (d) "Consultation Techniques," by A. C. Stander, M.D.
   (e) "Art of the Practice," by C. E. Wheatley, M.D.
   (f) "Medical Organization," by E. Clarkson Long, M.D.
   (g) "The Family Physician's Place in the Community," by M. H. Miller, M.D.
16. 1/13/60, "Fellow Practitioners and Sub-standard Healers," by Milton R. Weed, M.D.
17. 1/20/60, "An Ethical Approach to Cancer in Geriatrics," by C. Howard Ross, M.D.
18. 1/22/60, "The Doctor As a Witness," Student Faculty Assembly at Wayne State University Medical School, by Judge Victor Baum.
19. 1/27/60, "Ethics Involved in George Washington's Death," by Darrell Campbell, M.D.
20. 2/5/60, General Practice Panel: Student Faculty Assembly at Wayne State University Medical School.
   (a) "Moderator with Introduction," by C. Howard Ross, M.D.
   (b) "General Practice in a Metropolitan Area," by Lyle Korum, M.D.
   (c) "The General Practitioner and the Specialist," by E. Hamilton, M.D.
   (d) "Consultation Techniques," by E. S. Woodworth, M.D.
   (e) "General Practice—The Keystone," by Howard Rees, M.D.
   (f) "Art of the Practice," by Charles M. Burgess, M.D.
   (g) "Medical Organization," by E. Clarkson Long, M.D.
21. 2/10/60, "A Doctor Walks Among Many Religions," by Winslow G. Fox, M.D.
22. 2/17/60, "The Surgeon and His Fee," by Charles G. Child, M.D.
23. 2/24/60, "The Ethical Problems of Contraception and Therapeutic Abortion," by Drs. William Hubbard, Norman F. Miller, and C. Howard Ross.
24. 3/9/60, "Medical Records and Taxes," by Robert Kanuer.
25. 3/16/60, "The Physician and Society," by Ralph Rabinovitch, M.D.
26. 4/1/60, "Beginning Practice," Student Faculty Assembly at Wayne State University Medical School, by Nelson Young.
27. 4/20/60, "Orientation Committee, Washtenaw County Medical Society," Drs. Edmund S. Botch, R. Wallace Teed, Theodore G. Kabza and Gerhard H. Bauer.
28. 5/11/60, "An Outward Expression of the Michigan State Medical Society," by Kenneth H. Johnson, M.D., President Elect. A rapid-fire question and answer period included the problems of health insurance for the aged.
29. 5/18/60, Panel on Medical Communication:
   (a) "Legislative Problems," by Richard Philleo.
   (b) "Public Relations," by Wallace Teed, M.D.
   (c) "Physician-Patient Relation," by C. Howard Ross, M.D.

8. *Liaison Committee with Michigan State Board of Registration in Medicine.*—One meeting of this committee was held during the year. Problems and policies of mutual interest to the profession, the medical schools and the State Board of Registration in Medicine was discussed. It was mutually agreed that when any matter involving the concern of one or more of the groups arose, the committee would immediately be called into session for discussion of the problem.

9. *Committee on Blood Banks.*—The Committee on Blood Banks has not met during the past year mainly because, since the Michigan State Medical Society has co-sponsored the Michigan Association of Blood Banks, most of the business pertaining to blood banking has been handled by this organization due to its close relationship with the American Association of Blood Banks.

The State of Michigan is leading the way in the United States in presenting Blood Bank Workshops for the training of technologists in this specialized field and also the National Inspection and Accreditation of Blood Banks Program had its start in Michigan and is being continuously supported and carried out in this State.

Although it would sound as though the Committee on Blood Banks is non-active, it should be maintained at the state level so that there are formal lines of communication between the state blood banking association and the State Medical Society.

The Michigan State Medical Society and the State of Michigan can be justly proud of the Michigan Association of Blood Banks which has grown since its co-sponsorship by the Michigan State Medical Society and the Michigan Pathological Society into one of the most outstanding blood bank associations in the United States.

10. *Liaison Committee with State Bar of Michigan.*—No matters were referred to this committee during the

year, either, by the Michigan State Medical Society or the State Bar of Michigan. So no meetings were held.

11. *Committee on "Big Look."*—The Big Look Committee has met on four occasions during the year. At its meetings, the following matters concerning the new MSMS headquarters building were considered:

Furnishing of New Headquarters.—The Committee directed the interior design in co-operation with consultants from office of Architect Yamasaki & Associates. The specifications stressed funtionalism and reasonable cost and all contracts were awarded to the lowest bidder.

Landscaping.—The Committee selected a registered landscape architect to draw specifications for the planning of the grounds of the new headquarters. These specifications will be given final approval by the Committee and competitive bidding among landscaping contractors will follow.

Sale of 606 Townsend.—Although several offers have been made to purchase the present MSMS headquarters, none of these have been accepted by The Council. Negotiations are continuing with two prospective buyers.

Acquisition of Frost Property.—Effort has been made during the year to obtain the Frost property adjoining the new headquarters north lot line. This land is desirable both as an investment and also as a "buffer State" with the property owners to the north. MSMS now holds first option if the Frosts decide to sell.

12. *Medical Care Insurance Committee and Subcommittee on Relative Value Scale.*—The MCIC Committee held meetings January 20, March 16, April 20, and June 1 of 1960. It is anticipated that meetings will continue to be held every month until the House of Delegates convenes in September, 1960.

The Committee has devoted its major efforts to the development of a $6,500 ceiling contract as directed by the House of Delegates in September of 1959.

A secondary item of consideration was the financial problem of Blue Shield which resulted in a request to the Insurance Commissioner for an increase in premium rates.

The Committee has approved unit values for the $6,500.00 contract when it is developed.

13. *Relative Value Scale Sub-Committee Report.*—The Relative Value Scale Committee was created to develop a relative value scale for Michigan.

In the first meetings, it developed an over-all plan of operations, and condensed and modified the California questionnaire. The Committee sought experts' advice and statistical consultants and chose Market Opinion Research Co. and Dr. J. M. Mattila of Wayne University.

It was understood that a 75 per cent or smaller return of questionnaries sent to all MSMS members would not be statistically valid. Therefore, to insure a valid return, the sampling technique was employed. Market Opinion Research Co. and Dr. Mattila chose the "Sample Members" by geographical area, type of practice and numerical distribution. The identification of those "Sample Doctors" was known only to them and was never known to any committee members or any member of MSMS. The questionnaire was mailed in November, 1959, to every member of MSMS and three follow-up letters also were sent. Later the Market Opinion Research Co. did local follow-ups through their representatives in order to concentrate on "Sample Members." The return from the entire membership was 45.6 per cent; the return from the scientifically selected sample was 60.1 per cent.

The data obtained were transferred to IBM cards, were sorted, and analyzed and then presented to the RVS Committee. Validity and statistical accuracy has been certified by Dr. Mattila, the consultant. Since this report has been received in April, 1960, the RVS Committee has started the tremendous task of holding liaison meetings with group and society representatives to develop the interpolations between the milestones obtained from the questionnaire survey.

Meetings have been held on April 24, May 8-9, May 21-22, and June 4-5. About half of the groups have been contacted to date, but dates for the remainder will be harder to schedule. After these conferences are concluded, the Committee itself will require numerous meetings to complete the task. The Committee believes that this phase of the work cannot be rushed and regrets that the final report will not be ready for the 1960 MSMS meeting. The Committee has had excellent co-operation from all the special groups it has conferred with thus far and believes that its final report may be ready before March 1961.

* * *

The reports of meetings of liaison committees to which the Michigan State Medical Society sends representatives, were presented monthly to The Council for its information.

Legal Matters

Your Legal Counsel, Lester P. Dodd, LL.B., gave considerable time during the past year in providing necessary legal advice to the Michigan State Medical Society, many of its committees, and to component societies. He held numerous informal conferences with our committee chairmen, with component societies' officers, and with the MSMS staff.

Again, as last year, the details of building the new MSMS headquarters also threw additional burdens of research and decision on Mr. Dodd.

Legal opinions or specific guidance were rendered by Mr. Dodd on the following matters:

(a) Opinion re surgical privileges in an accredited hospital

(b) Opinion on Michigan Supreme Court decision concerning statutory rule pertaining to privileged communications

(c) Opinion re medical problems in hospital

(d) Opinion re drawing of blood for alcohol determination

(e) Opinion re legal limits of chiropody practice

(f) Opinion re validly authorized post-mortem examination

(g) Opinion re problems involved in utilization of practical nurses in administration of drugs and medication. Also re legality of nurse administering anesthetic on a fee-for-service basis if not under supervision of an MD

(h) Opinion re liability of physician who volunteers for emergency call service at local hospital

(i) Opinion re permission to do surgery on children when parents are under age 21

(j) Opinion whether total health and accident premiums could be regarded as a medical deduction for income tax purposes—only the health insurance portion is deductible

(k) Opinion re patient refusing psychiatric treatment —improper to bring in consulting physician or refer patient for psychiatric treatment without consent of patient

(l) Opinion that county society mediation committee is only body of county society that can hear outside representatives and that insurance companies and private individuals should have free access to advice of these committees

(m) Opinion re propriety of a physician or hospital divulging information concerning bills

(n) Advice re internal revenue service proposed rules and regulations on Kintner-type associations, permitting pension plans in special group practice situations

(o) Comment re doctors belonging to labor unions.

New MSMS Headquarters Building

The cornerstone of the new MSMS building at 120 West Saginaw Street, East Lansing (M-78 and Abbott Road), was laid with appropriate ceremonies on Sunday, September 27, 1959, with the Officers, The Coun-

cil, many members, and Architect Minoru Yamasaki present.

At every monthly meeting of The Council, progress on the erection of the new building was presented by the Lansing representative of the Big Look Committee, President-Elect K. H. Johnson, M.D., including furnishings, new equipment, and sale of the 606 Townsend property.

The original estimate for occupancy was necessarily postponed by the steel strike which forced delay in prefabricating the concrete vaults and pillars; also an iron workers' strike stopped activity this spring for thirty-five days. Construction was resumed on June 27. The present conservative estimate for occupancy is December 1.

Through the commendable efforts of Treasurer Wm. A. Hyland, M.D., a line of bank credit has been established, at a favorable rate of interest, to pay for completion of the building pending receipt of dues allocation which may necessarily run through the year 1966 to fully pay for the building.

Plaque and donor tablets, to memorialize those individuals, or families, who contribute toward furnishing specific rooms, have been authorized; in addition, a memorial volume to record these and other donations will be a permanent fixture in the lobby of the MSMS headquarters.

Some special gifts already have been received and plans are being formulated to obtain additional contributions to supply necessary equipment for new extended services to be rendered by MSMS to its members and the public.

The Big Look Committee, headed by Past-President W. S. Jones, M.D., has done yeoman service to the Society during the past year in connection with the erection of the new MSMS headquarters building.

MSMS Group Insurance Programs

A complete report on the two group insurance programs of the Michigan State Medical Society will be presented in the Supplemental Annual Report of The Council, with data up to September 1.

"Medicare" and Veterans Administration Hometown Medical Care Programs

1. Due to service cutbacks, Medicare payments were less in 1959 than in previous years. However, some of the services were restored on January 1, 1960, which increased private practice of medicine under the program. Medicare is being handled by Michigan Medical Service as fiscal agent of the Michigan State Medical Society; it appears to be a program that so far has been satisfactory to both patients and the purveyors of service.

2. Veterans Administration Hometown Medical Care Program. During the past year minor changes in the program were made, acceptable to MSMS. The new contract went into effect April 1, 1960 and was approved by MSMS—the attitude of The Council, in renewing the modified contracts has not changed since its report to this House of Delegates last year: "Unless the program for care of veterans is much improved, MSMS seriously considers discontinuing its participation."

Woman's Auxiliary

(Submitted by Mrs. Harold Gay, Coleman, President)

As President of the Woman's Auxiliary to the Michigan State Medical Society I take pardonable pride in submitting this report for the year 1959-60.

Before citing Auxiliary activity, however, I should first like to thank Mr. Burns and his efficient staff for the work and courteous assistance they have given us for so many years. Without these services we would be in serious difficulty.

We are especially appreciative of the labor and financial support extended in the publication of the *Auxilium* and regret only that it must be limited to three instead of four issues.

For the recognition and praise of Auxiliary accomplishments expressed by your President, Dr. Darling, in his President's Page of The Journal, we wish to say "Thank you, Doctor Darling."

Though there has been no instance this year which required consultation with the advisory board, we are grateful for its letter of suggestion sent to all county medical societies, urging the utilization of Auxiliary talents in many areas of public relations. Although the number of Auxiliaries cooperating with the county medical societies seems to be increasing, the results of this communication will not be evident till next year.

Election years are apt to be both exciting and interesting, but this year has been exceptionally so with its Forand Bill, McNamara hearings, and consequent conferences on the needs of the aged. It has been a tremendously busy one for all our state officers and chairmen who have given so willingly of their time and energies to promote Auxiliary goals and translate the principles of the practice of medicine to the public.

Legislation has received foremost Auxiliary attention this year because of the recurrent threat of socialized medicine. All District meetings, the mid-year Board meeting and one issue of the *Auxilium* were given over to alert and inform members with regard to the dangers of the Forand Bill. Auxiliaries sent resolutions, individuals wrote letters protesting the bill, and its emergence from committee. Through efforts of individual members who spoke to other organizations many more protesting resolutions and letters were added to the flood of correspondence in Washington. The resolution from our State Auxiliary was made part of the congressional record. We pause in our efforts now to await further instruction for proceeding in this fight which has only begun.

Our Auxiliaries have supported the AMEF project to the amount of $6,492.58 which seems like a substantial sum until one hears what is being done in the neighboring states. This, however, is an increase of $1,000 over last year and we believe that as understanding of the need and use of AMEF funds grows, so will the Michigan contribution.

Our recruitment program is well known to you and continues to flourish independently and in cooperation with other organizations such as the League for Nursing. Most of our counties sponsor future nurses clubs and offer nurses scholarships and/or loans. This project is particularly attractive to our Upper Peninsula counties. One Auxiliary reports sponsoring a Future Doctors Club through the Kiwanis Club.

We are now urging that recruitment efforts be extended to include the whole paramedical field. In cooperating with the Michigan Health Council, an opportunity highly valued, the Auxiliary this year helped to promote paramedical careers recruitment through the Regional Rural Health Conferences held in Marquette, Kalamazoo, Detroit, and Mt. Pleasant. We also furnished a table top exhibit at the National Rural Health Conference in Grand Rapids.

The total amount offered by the county auxiliaries for scholarships and/or loans is over $12,000. Two counties report scholarships for medical students. The State Auxiliary is one of the planners with the Michigan Health Council which hopes to set up a State Scholarship and Loan Fund for recruitment in the paramedical services.

Of all our projects, our Mental Health program has shown the greatest growth this year. The use of Milestones to Marriage in both schools and churches is gaining popularity. Through the initiative of our Mental Health Chairman sample drugs, valued at $9,000, have been collected and sent to the State Mental Hospitals. Operation Friendship, remembering the forgotten State and County hospital patient on seasonal holidays and birthdays, is favored by some auxiliaries. The program has been extended also in cooperation with other or-

ganizations. Auxiliaries report programs on alcoholism, problems of our senior citizens, emotional needs of children, Industrial Mental Health, etc. The collection of toys for State Home and Training Schools and sending gifts to County Hospitals are additional activities in promoting better mental health.

It is difficult to draw the line between these projects and community service, since all Auxiliaries adapt the program to their community needs. Community service is the province of the individual member as well as the whole auxiliary and covers a wide range of endeavor such as volunteer hospital work, county immunization programs, blood banks, cancer registry, T.B. survey, health booths at State and County Fairs, Red Cross instruction, youth leadership, Science Fair promotion—just to mention a few.

One member conducts a school for deaf children and speech defectives from the ages of two to six. She is assisted by two other doctors' wives and draws children from a tri-city area. One Auxiliary with its medical society honors, at a tea, students graduating with high scholastic ratings. Time and space prevent a complete listing of such activity.

In the rural areas where leadership is at a premium, the doctor's wife is called upon to participate in all types of community action. Through her social contacts she acts as a liaison between the public and the medical profession—an ambassador of good will. It is in this service that our Michigan Auxiliary members make their greatest contribution to Auxiliary ideals and to the Medical Association. This is why it is imperative that the county medical society should keep its auxiliary well informed concerning its views and policies about which the public should know.

Because the State of Michigan has a well developed Safety and Civil Defense organization, Auxiliaries initiate no action. They do cooperate in the community program and usually schedule an informative program concerning these subjects during the year.

Not to be overlooked is our fine relationship and cooperation with the Student AMA Auxiliary. Representatives from these groups are guests at our Mid-Year Board and Annual Sessions. They are well indoctrinated and will enter their communities well aware of existing problems and with some ideas of approaching them.

Membership-wise we show a slight increase. But the small auxiliary scattered over several counties as well as the large metropolitan auxiliary continue to be problems —the former, too vague and lacking in motivation, the latter too impersonal. We are still looking for the magic formula which will solve the situation and bring every doctor's wife within the fold.

So, for its thirty-fourth year, the Woman's Auxiliary to the Michigan State Medical Society has followed the aims laid down at its inception, chief of which are:

1. Through its members to explain the objectives of the medical profession to lay organizations interested in health education.
2. To do such work as may be approved or assigned by the Michigan State Medical Society.

Public Relations

Public Relations activity has been intimately involved with major projects of the Society as in the past. In addition, the varied subjects involved are indicated by the following activities of the past year.

—Nomination of Arthur A. Claytor, M.D., for the AMA General Practitioner of the Year Award.

—Work with science writers and other newspaper representatives.

—Assistance to the Medical Assistants.

—Work with county medical societies, Woman's Auxiliary, Medical Assistants and others in presenting exhibits at the State Fair, the Saginaw County Fair, the Upper Peninsula Fair, the Ionia Free Fair and many community fairs or their equivalent.

—Planning and implementation of complete publicity programs in connection with the Annual Session and the Michigan Clinical Institute, including TV, radio and newspaper, plus special presentations before service clubs, women's clubs, etc.

—Special TV programs on such subjects as medical care of the aged, the role of the family doctor, etc.

—Directional and cooperative services in connection with four major Regional Health Conferences.

—Similar services were rendered in connection with the Congress of the Professions of which the MSMS President was Honorary Chairman and MSMS Past President George W. Slagle, M.D., was General Chairman. Held in Detroit, January 22-23, this was the first such meeting ever held in Michigan or the nation.

—Handbooks for CDMCIC members were prepared.

—Meetings on Public Relations on the state and national level—participated in both by attendance and as program participants.

—As instructed, developed recognition programs for outstanding services of members, science writers, ancillary personnel and a multitude of others by letter, scrolls, gifts, etc.

—Preparing, reviewing and revising films and purchase of prints.

—Testifying before legislative committees and arranging for testimony.

—Active liaison with the Michigan Health Council in its day-to-day operations, plus the planning and arrangements for the National Rural Health Conference at Grand Rapids—the only AMA national meeting to be held in Michigan for several years.

—Efforts to bring the national meeting of the American Association of Medical Assistants to Michigan.

—Recruiting of medical students and medical associates via the preparation of brochures, fund-raising campaigns and the holding of conferences at educational institutions and elsewhere.

—Preparing contacts with Congressmen, Public Health Officers, public officials and friends of medicine, both in Michigan and Washington, D. C.

—Planning for the County Societies-Public Relations Seminar and Editors Workshop and arranging for the program participants.

—Arranging for special information to be given to The Council on subjects of legislative interest.

—Assistance to county medical societies in programs. the awarding of honors, publicity, and any number of miscellaneous problems.

—Development of brochures for special purposes and articles for The Journal, MSMS.

—Maintenance of a Public Relations Library and distribution of thousands of publications.

Legislation

Although legislation and public relations are separate, they are bound to overlap in many ways. Thus, whereas the work on the problems of the aging were scientific, legislative and socio-economic in nature, the public relations overtones also were of major importance during the past year.

In election year 1960, when powerful organized labor and political advocates of socialized medicine were exploiting the circumstances and sympathies of the senior citizen to stimulate public support for the Forand Bill, Michigan Doctors of Medicine launched an intensive, six months' counter-attack program of public education.

Despite these efforts, however, it seemed likely at mid-year that a vote-conscious Congress would be stampeded upon its return to Washington in August into adopting some variation of the Forand Bill to provide limited compulsory health care to the aged, still within the framework of the Social Security law.

Accordingly, on July 15, the Council launched a crash program to alert the profession and through it the public to the immediate crisis confronting the nation. The Council believes that *individual doctors are capable of exerting great force to counteract such a political*

move. The crash program is designed to multiply and maximize each doctor's personal influence.

A recommendation on this subject follows.

In addition to the work on the Forand Bill and its related legislation, including formal resolutions, legislative proposals, communications, hearings, et cetera, work in legislation included such matters as:

(a) Taxes—income or sales tax, or levy on the self-employed.
(b) Optometry.
(c) F.E.P.C.
(d) Immunization.
(e) Chemical tests.
(f) Atomic energy.
(g) Retirement for the self-employed.
(h) Crippled children.
(i) Chiropractic.
(j) Appropriations for medical and health programs and projects.
(k) Registration of M.D.'s, psychologists and others.
(l) Internship and foreign doctor problems.
(m) Ambulance regulations and related activities.

These were involved in 800 bills reviewed, of which 122 were of keen interest to the medical profession.

Again, it can be said that the Legislature was most cooperative with MSMS and understanding of the wishes of the medical profession. The legislators refused to pass legislation inimical to the best health interest of the people and the profession and approved by legislative action the requests of MSMS.

Matters Referred for Action by the 1959 House of Delegates

1. *Resolution 1.* As directed, MSMS took recognition of the accomplishments of the Kalamazoo State Hospital at its Centennial celebration.

2. *Resolution 3.* Freedom of choice of contract in Michigan Medical Service: As directed, request was made to Michigan Medical Service Board of Directors to give each group purchaser of its contract, as the case may be, the option of choice of plans currently offered for sale, and that the eligibility for service benefits under income-not-certified contracts be determined by mutual agreement between the physician and the patient. Michigan Medical Service reported it had implemented this Resolution as follows: "That for group purchasers, the choice of income-certified or income-not-certified certificates will be offered to the group as a whole and that individual members of a group which selects the income-not-certified certificates may choose whichever of the four income levels offered that he desires."

3. (a) *Resolution 4* re modification of MMS M-75 to $5,000 income limit; (b) *Resolution 5* re modification of MMS M-75 to $6,500 income limit; (c) *Resolution 16* re family income determination; (d) *Resolution 42* re determining total annual family income: the substitute resolution adopted by the 1959 House of Delegates in lieu of these four resolutions was transmitted to the Board of Directors of Michigan Medical Service with request that it proceed with its implementation as directed. Michigan Medical Service reports that its Enrollment Committee has been working continuously on this substitute Resolution and will include its recommendation in its Supplemental Report to the 1960 House of Delegates.

4. *Resolution 6* re hospital committee reports, prevent subpoena: as instructed, this was referred to the MSMS Legal Affairs Committee which considered it at two of its meetings. Legal Counsel also considered this matter and was of the opinion that present Michigan laws covering the subject are sufficiently broad to accomplish the purpose of the 1959 resolution (i.e., to deny to subpoena all hospital medical staff committee reports) and that the submission of a specific bill into the legislature by the Michigan State Medical Society might be more damaging than helpful. It is to be noted that House Bill 25 of the 1960 Michigan Legislature (not introduced by MSMS) touched on the general subject, but was so broad that, in line with the 1959 House of Delegates resolution, it was opposed by the State Society. The bill died in committee.

5. *Resolution 7,* re publishing nominations for Michigan Medical Service Board of Directors, was transmitted to Michigan Medical Service with a formal request that such procedure be inaugurated. Michigan Medical Service reports that it implemented this Resolution.

6. *Resolution 8* reaffirming 1957 Statement of Principles; Resolution 21 House of Delegates to approve prepayment plans contracts; Resolution 38 MMS: Study of remuneration for prolonged and/or complicated cases; the 1959 House of Delegates presentation made by Chairman of the National Blue Shield Plans; and the Annual Report of the House of Delegates *ad hoc* Study Committee on Regional Election of MMS Board Members: these five matters were referred to the House of Delegates Committee to Work With National Blue Shield which will present its findings and recommendations in a separate report to the 1960 House of Delegates.

7. *Resolutions 10, 17, 20* re participating and nonparticipating physicians to be paid by Michigan Medical Service in same manner: the substitute resolution on this matter was referred to the Board of Directors of Michigan Medical Service with request that it incorporate on the Doctor Service Report form a statement of assignment which could be signed by the patient or subscriber when payment is to be made to a nonparticipant. Michigan Medical Service reports that it implemented this substitute resolution on December 11, 1959.

8. *Resolution 15,* re maximum term of members of the Board of Directors of Michigan Medical Service, was directed to the attention of Michigan Medical Service which reported that it had fulfilled this resolution's request so far as M.D. representatives on the MMS Board are concerned, except that the President (and members serving as representatives of the public) may be excluded from the MMS Board resolution on this subject by a two-thirds vote of the members of the Board.

9. *Resolution 18* re adoption procedures: the instructions of the House of Delegates were followed and copies of this resolution were mailed to all indicated in the House resolution.

10. *Resolutions 24, 28, and 35,* re transmitting Council minutes to Delegates and county society secretaries: minutes were and are sent monthly, as directed.

11. *Resolution 26* re Geriatrics Chairs in Medical Schools: this matter was invited to the attention of the Deans of the two Medical Schools in Michigan; their individual replies indicated a willingness to institute such a department but they both pointed out that more money from the Legislature is necessary if they are to do so. In discussing this matter, the MSMS Liaison Committee with Michigan Medical Schools (March 30 meeting) pointed out that more research is needed in this area before a special department can be set up and a man obtained to head it and begin a training program and that such a Chair probably would fit more appropriately in the schools' faculty under the department of internal medicine.

12. *Resolution 27.* In accordance with this resolution, the Speaker appointed a House of Delegates Committee to Study Malpractice which will report its deliberations to the 1960 House of Delegates in a separate report.

13. *Resolution 30,* re itemization of Blue Cross and Blue Shield premium notices, was transmitted to Blue Cross and Blue Shield. Michigan Hospital Service stated that "Blue Cross is eager to have subscribers know what the relative cost of the two services is insofar as it is practical to do so . . . that certain steps already have been taken to provide this information to some of our subscribers who receive individual monthly bills. So far, we have not been able to think of any practical way to make group subscribers on payroll deductions aware of the individual Blue Cross-Blue Shield costs on a monthly

basis since they never see any bill at all."

14. *Resolution 31,* re prenatal health program of Michigan Department of Health was referred to the MSMS Maternal Health Committee by the 1959 House of Delegates: the Maternal Health Committee reviewed the material in the prenatal letters, as prepared and mailed by the Michigan Department of Health, and found no objectionable material therein; since the program began in 1920 and the letters are sent on request of the attending physician except in rare instances, the Maternal Health Committee recommends the continuation of the Michigan Department of Health Prenatal Letter Program, and that the letters be sent patients only on the request of the attending physician.

15. *Resolutions 33 and 34,* Editor to be elected by House of Delegates, was referred to the Special House of Delegates Committee to Study Michigan State Medical Society Publications; the Annual Report of this Committee will be presented to the 1960 House of Delegates.

16. *Resolution 36,* Civil Defense Training Programs: a copy of this resolution was sent to the secretary of every component society, as per instruction.

17. *Resolution 37,* re medical student recruitment: each component society was encouraged to appoint an active committee delegated with the responsibility of continuous presentation of the advantages inherent in medicine as a vocation; in addition, the Michigan Health Council included this activity as one of its major projects of the year.

18. *Resolution 39.* Other professions: reduced fees to senior citizens. This was referred to the Board of Directors of the Michigan Association of the Professions which invited the problems created by an aging society to the attention of its member-organizations (law, dentistry, engineering, architecture—other than medicine) and urged each profession to study the matter and make necessary decisions so Michigan will lead the way in a progressive program in this important subject area.

19. *Resolutions 44, 45, and 52,* re voting privileges and election of Secretary and Treasurer. These proposed amendments to the Constitution, recommended by last year's Reference Committee on Constitution and Bylaws, are on the agenda for consideration by the 1960 House of Delegates.

20. *Resolution 51* re membership on Postgraduate Medical Education Committee: this matter was studied by both the MSMS Postgraduate Medical Education Committee and the House of Delegates Committee on Committees; the latter Committee will submit its recommendations on this and other matters to the 1960 House of Delegates in a separate report.

Recommendations

1. That the House of Delegates give approval to the President's Program and urge enthusiastic support of this important project by all members.

2. That The Council be authorized to arrange Councilor Conferences, prior to the Annual Session, to continue communication and share information with delegates, alternate delegates, and component society officers, as during the past three years.

3. That the House of Delegates give fitting recognition to the first Michigan lady to become President of the Woman's Auxiliary to the American Medical Association—Mrs. W. L. Mackersie.

4. That the House of Delegates approve the holding of an annual "General Meeting" of the State Society as part of the last meeting of the House of Delegates.

5. That component societies be encouraged to sponsor "County-State Society Nights" once per annum, to augment communication and information on matters vital to the full memberships of all county societies in Michigan.

6. That the House of Delegates approve amendment to the Bylaws (Chapter 10, Section 1) to confirm the traditional practice of electing the officers of The Council in September, immediately after the election of new Councilors by the House of Delegates.

7. That the House of Delegates reactivate the MSMS Cancer Control Committee by approving amendment to Bylaws (Chapter 11, Section 3), as the guidance and advice of this committee is necessary at this time.

8. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1961 on the occasion of the Annual Michigan Day, as recommended for many years by the House of Delegates.

9. That the House of Delegates endorse the action of The Council in developing and implementing an intensified crash program against political medicine for the aged; further, that the House of Delegates urge every MSMS member to recognize the seriousness of this threat and personally to inform his patients and other friends *NOW* of the fallacies and dangers of this ill-advised program which will dilute the present high quality of medical care for *all* people.

Respectfully submitted,

H. J. Meier, M.D., *Chairman*
T. P. Wickliffe, M.D., *Vice Chairman*
A. E. Schiller, M.D.
O. B. McGillicuddy, M.D.
Wm. A. Scott, M.D.
C. Allen Payne, M.D.
H. H. Hiscock, M.D.
C. N. Hoyt, M.D.
E. S. Oldham, M.D.
D. G. Pike, M.D.
O. J. Johnson, M.D.
W. M. LeFevre, M.D.
B. T. Montgomery, M.D.
B. M. Harris, M.D.
R. J. Mason, M.D.
G. Thomas McKean, M.D.
W. W. Babcock, M.D.
William Bromme, M.D.
J. J. Lightbody, M.D., *Speaker*
H. F. Falls, M.D., *Vice Speaker*
Milton A. Darling, M.D., *President*
K. H. Johnson, M.D., *President-Elect*
D. Bruce Wiley, M.D., *Secretary*
W. A. Hyland, M.D., *Treasurer*
G. B. Saltonstall, M.D., *Past President*

ANNUAL REPORT OF ETHICS COMMITTEE—1959-1960

The committee met once this year as a group for the sake of winding up some of the year's problems. There was plenty to do and the mails served in most cases but there was a well attended meeting in the MSMS offices at 4 p.m. on May 11 to complete insofar as possible a report to the Council before the end of the fiscal year.

The Council approved all of the actions taken except one and that was on the basis of their not having enough information on that particular subject. That will be discussed a little further on under anesthesia fees.

As a sample of the problems presented, one doctor wanted to know if it would be ethical to allow the local weekly newspaper to put, at no expense to him, a professional notice giving his hours and phone numbers for the convenience of the subscribers of the paper. This is often a local custom in the smaller areas but he was new to the area and did not know that it is often done.

Another involved the receipt by a doctor of a notice from a nearby air base telling him they were accepting bids for doing eye refractions for the personnel at the base—the lowest bidder to get the contract. He had refused to enter a bid and we complimented him on his good judgment.

There were numerous similar cases but none could compare with a hassle that lasted a little more than two years and used up reams of paper and countless hours of valuable time, even involving legal talent.

In this case a doctor was suspended because of his stubborn refusal to divulge what medicines he was using in his treatment of mongoloid children. Many hearings had been held with his Society's committees according to their by-laws but he had an idée fixée that, he would never reveal his medication to them until he had had a chance to give a paper on it before some national medical society.

After an unknown number of refusals, he was finally given a place on the American Association for the Advancement of Science Program late in December, 1959. He then sent his county society a copy of that paper with copies of the illustrations of patients "before and after" and detailed doses of what turned out to be mostly simple vitamins grouped under the names he had coined.

This committee then assumed that it was correct in interpreting the order of his suspension by his society's ethics committee to mean that his detailed description had fulfilled the requirements of the suspension. We asked the Council to inform the society involved to that effect. This committee also asked that the suspending society apprise us if that were true. We have had no such message to date. The minutes of the Council meeting, May 18, apparently approved this part of the report of our meeting on May 11 because only the next case was not fully accepted until the Council had more information.

The next case involves the matter of what MMS should pay for various types of anesthesia and to whom the fees should be paid. There were four possibilities: 1, with the anesthesia started and finished by an anesthesiologist; 2, where it was started by an anesthesiologist and finished by a nurse anesthetist; 3, where there were multiple anesthesias at the same hospital and all are supervised by one doctor anesthesiologist; and, finally, 4, where the doctor was called in consultation during an anesthetic being given by a nurse who needs help when a complication arises.

This anesthesia problem seemed actually not to belong to ethics as such but more to the economic side of MMS. This question probably was the reason why The Council turned this one case back before approving the conclusions drawn by the Ethics Committee and asked for more information on the subject.

All the other decisions of the committee were apparently approved.

Recently an inquiry from the AMA Disciplinary Committee in re medical disciplinary and mediation problems in Michigan was received and was at once referred to the Mediation Committee of the MSMS as promising to be a long term study in which we would be glad to help as much as possible if help were needed.

The last problem just received on June 27 from the Electroencephalographic Society asks four questions of our committee:

1. Is incorporation of an EEG laboratory ethical within the standards of the society?

2. Does the MSMS view incorporation in general as professionally ethical?

3. Are there some types of medical service that may be ethically incorporated whereas others may not?

4. Has the AMA established any standards in this regard?

And so it goes! It is obvious that the duty of this committee is supposed, by some people, to be the tackling of any problem that nobody else wants. We have been busy and there has been plenty to do this year.

Respectfully submitted,
H. W. Porter, M.D., *Chairman*
W. L. Harrigan, M.D., *Vice Chairman*
F. M. Doyle, M.D.
F. H. Lindenfeld, M.D.
J. D. Miller, M.D.
E. A. Oakes, M.D.
E. A. Osius, M.D.
A. H. Price, M.D.
P. K. Stevens, M.D.
W. F. Strong, M.D.

ANNUAL REPORT OF THE PUBLIC RELATIONS COMMITTEE—1959-1960

During the year just past, this Committee has curtailed its expenditures in recognition of necessary use of funds for other purposes. On the other hand, it has striven to increase its production. The result has been fewer projects but more extension of service to established media and communication through organizations.

Postponed were plans for a Medical-Legal Conference on Investigation of Unexplained Deaths, a motion picture and brochure on the cost of medical care, an exhibit at the Upper Peninsula Fair. Dropped were live surgical public telecasts and some radio programs.

In addition to the work noted in the report of The Council, and supplementing the work of many scientific and socio-economic committees, we have carried out a program designed to so inform and persuade the public that it will continue to have confidence in the practicing doctor of medicine, his organization and his philosophies.

Television and Radio: Additional "Family Doctor" television shows to those of last year were presented supplemented by appearances over established programs or on specially allocated periods. Cooperation was given to the Michigan Association of the Professions—Michigan Health Council TV program "Decision—the Moment of Truth," a program built to explain why professional people do-what-they-do-in-the-way-that-they-do-it and how to make best use of professional people. Several radio programs were originated by MSMS and participation by M.D.'s in these programs was outstanding. Continued support was given the U. of M. health series broadcast in tape over local radio stations.

Intra-Professional Liaison: Visits to county medical societies, the Upper Peninsula Medical Society and sundry specialty groups maintained intra-professional liaison. All requests for services by county medical societies or individual members were gladly received and carried out.

Motion Pictures: The documentary film on the new MSMS Headquarters is progressing nicely. Several films prepared by the AMA and other recognizably authoritative organizations were purchased.

Science Fairs: MSMS aided local medical society participation in science fairs and recognized the winner of the National Science Fair, Philip C. Bockman, from Grand Rapids.

Exhibits: An educational exhibit was made at the Michigan State Fair and we point now to the fact that last year MSMS was awarded the trophy for having the outstanding exhibit at that fair. This fact occurred too late to include in last year's report. Again thanks are due the county societies, the Auxiliary, medical students and medical assistants for their cooperation.

Michigan Association of The Professions: This organization has grown to a membership of 3,325 and has effectuated a brilliant program of service in the fields of education, public relations, legislation and business services. Of particular advantage to the medical profession were:

(a) The Congress of the Professions—Detroit, January 22-23, which held hearings on the subjects noted above and presented, among other outstanding speakers, Dr. Arthur S. Flemming, Secretary of Health, Education and Welfare and Dr. David B. Allman, Past President of the AMA.

(b) Day-long meetings to recruit students such as that held at Traverse City were students from a ten-county area were interviewed by eight deans of graduate schools, among them Dean Gordon Scott of Wayne State University College of Medicine and Assistant Dean C. J. Tupper of the University of Michigan Medical School.

(c) Legislative support of the Keogh Bill and opposition to the Forand Bill by letter and personal trip of officers to Washington, D. C.

(d) The instituting of Group Term and Major Medical Insurance programs, plus other business services such as the "new office" furnishing and equipping program.

(e) The communicating, in response to a request of the MSMS House of Delegates, of an urge to state member organizations of the need and opportunity to solve the problems of the aged.

Pamphlets: Distribution of AMA pamphlets was emphasized this year in view of the excellence of these publications. Schools, school libraries, fairs, doctors' offices, etc., served as outlets for these. In addition, the MSMS "Emergency Medical Card" and the pamphlet "Your Family Health Record" were distributed in the number of several thousand.

Public Relations Conference: The County Secretaries-Public Relations Seminar was held in January, augmented by an Editor's Workshop for publishers of county society bulletins. An excellent attendance complemented an outstanding roster of speakers.

Mass Media: By means of press releases to all Michigan newspapers, radio and TV stations, reports of current work of MSMS was carried to the general public. Also special stories were released to home-town papers of Doctors who received special honors. The work of the staff with the newspapers is a never-ending task highlighted by special work under the direction of the Press Committees at the Annual Session and the M.C.I.

Speakers Program: For the fourteenth consecutive year, a galaxy of M.D. speakers appeared before service clubs of Detroit and Grand Rapids in connection with Annual Session and M.C.I. weeks. Throughout the year, the medical profession served the schools, colleges, clubs, ancillary groups and business organizations with a steady flow of speakers on an unusually broad variety of subjects—uppermost, this year, were talks on the problems of the Aged.

Publications: Many legislative and other special bulletins were issued during the past year. Aid was given *The Auxilium,* meeting announcements, JMSMS articles and a pronounced change in the format of THE JOURNAL was accomplished. A new publication *Medical Economic Currents* was published containing capsulated and charted facts of major interest. This was sent to 1,000 MSMS members who have state and county responsibilities which place them in the position of developing policy and expressing medicine's position to the public. It is published five times each year. This publication also provided opportunity for reprinting of these charts in county society bulletins. A new *Medical Career Guide* was prepared by MSMS and published by the Michigan Employment Security Commission. The special subcommittee in charge of this project was headed by J. M. Sheldon, M.D.

P.R. Library: This growing repository of working materials continues to increase in value and usage. Adequate accommodations for it will be available shortly and it is anticipated that next year will see a vastly increased service emanating from this valuable facility.

Civic Affairs: Increased interest in civic affairs has been evidenced by county societies during the past year. Delegations of doctors to Lansing, Washington, D. C., participation in Aging Conferences, Regional Health Conferences, political parties, local "Homeramas," etc., have indicated an increasing interest by the profession in civic duty.

National Rural Health Conference: Held in Michigan for the first time, this conference attracted nationwide interest and was well attended. MSMS played an active part in obtaining this conference for Michigan and aided in the development and presentation of the program. This program, plus the Regional Conferences, replaced the annual Michigan Rural Health Conference in 1960. The Annual Rural Health Conference series will be resumed in 1961.

Presidents' Program: The Presidents' Program, to be reviewed elsewhere, is heartily endorsed as offering vast possibilities for outstanding public relations gains.

Comment: Try as the profession will, the concerted efforts of its powerful enemies (enemies not of scientific medicine but of the profession's concept of the best way to practice medicine) are making inroads in public thinking. This Committee feels duty-bound to urge increased activity (and financial support) in the future, both on the part of the individual doctor and of organized medicine.

Respectfully submitted,

R. W. TEED, M.D., *Chairman*
A. B. GWINN, M.D., *Vice Chairman*
R. E. ANDERSON, M.D.
S. E. ANDREWS, M.D.
H. G. BENJAMIN, M.D.
F. C. BRACE, M.D.
H. F. BRADFIELD, M.D.
J. W. BUNTING, M.D.
F. J. BUSCH, M.D.
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C. K. STROUP, M.D.
R. L.THIRLBY, M.D.
C. L. WESTON, M.D.
J. M. WOOD, M.D.
B. T. MONTGOMERY, M.D.
E. S. OLDHAM, M.D.
A. E. SCHILLER, M.D.
T. P. WICKLIFFE, M.D.

ANNUAL REPORT OF THE PREVENTIVE MEDICINE COMMITTEE—1959-1960

The function of this Committee is to coordinate the efforts of the various committees working in the broad field of disease prevention. This function was carried out during the year.

Members of the Committee, who are chairmen of the scientific committees of MSMS, reported the activities of their committees during the past twelve months. Also, committee member A. E. Heustis, M.D., State Health

(Continued on Page 1266)

Rupture of the Uterus

Rupture of the uterus accounted for 10.7 per cent of the maternal deaths in Michigan due to direct obstetric causes during the years 1950 to 1957 inclusive.

Precipitating factors which we have found in the study of these cases include previous Cesarean section, induction of labor by pitocin, intrapartum pitocin stimulation, version and extraction, forceps delivery and spontaneous precipitate delivery. It is especially interesting to note that 27 of the 77 maternal deaths from rupture of the uterus followed spontaneous delivery, five of which were breech presentations.

Advancing parity which goes hand in hand with advancing obstetrical age is the first warning sign. Of patients who died from uterine rupture, 57 per cent were 30 years of age or older; 88 per cent were multiparous and 34 per cent were para 5 or more.

Another interesting finding was the lack of good prenatal care which was evident from the records. Of the 77 patients who died 68 per cent had either little or no prenatal care.

There are two other statistics which help in telling why death so often follows rupture of the uterus. Of the 77 patients who died, only 31 had a pelvic examination and there were but 29 hemoglobin examinations performed. These are also indications of the type of prenatal care which the patients received.

There are unpreventable deaths due to rupture of the uterus but these in modern times are rare indeed.

Prevention of rupture of the uterus has its beginning with good prenatal care. With strict adherence to the rules for pitocin induction and stimulation, the general rule once a Cesarean section always a Cesarean section, the abolishment of version and extraction as a mode of delivery, and the use of forceps only by the well-trained, the number of uterine ruptures will rapidly diminish.

To decrease the number of deaths from rupture of the uterus, blood in adequate amounts should be readily available in every hospital doing obstetrics. *Every* cervix should be inspected following delivery. *Special* consideration must be given to the multiparous patient over 30, following precipitous or breech delivery, the use of pitocin for induction or stimulation, or following any operative or traumatic delivery such as forceps, extractions, or unusual fundal pressure as would be encountered with shoulder dystocia.

Manual exploration of the uterus, carefully done, is no longer feared and is often a live-saving procedure. A warning should be stressed that frequently small ruptures are not easily detected. Consultation should be considered for patients with excessive bleeding, a rise in pulse rate, a drop in blood pressure or persistent pain in the pelvis, abdomen or flanks.

One final statistic: only 23 babies in this series of 77 maternal deaths survived.

ANNUAL REPORT OF THE PREVENTIVE MEDICINE COMMITTEE

(Continued from Page 1265)

Commissioner, discussed the activities and plans of the health department in disease prevention.

The Committee gave considerable study to the role it might play in the MSMS Presidential Program. It was felt that the Preventive Medicine Committee could, through its members, serve as a coordinator of activities and projects of the various scientific committees. The Presidential Program to add useful years to life during a five-year educational effort, was enthusiastically received. More detailed planning is scheduled for future meetings of the Committee.

Respectfully submitted,
B. M. Harris, M.D., *Chairman*

B. E. Brush, M.D.
J. M. Dorsey, M.D.
S. T. Harris, M.D.
R. M. Heavenrich, M.D.
A. E. Heustis, M.D.
F. A. Jones, Jr., M.D.
W. M. LeFevre, M.D.
H. M. Nelson, M.D.
O. J. Preston, M.D.
A. Hazen Price, M.D.
R. L. Rapport, M.D.
J. M. Sheldon, M.D.
H. A. Towsley, M.D.
W. S. Reveno, M.D.

Dates Set for Michigan Conference on Aging

The dates for Michigan's "Little White House Conference on Aging" have been set for September 21-22.

Wilma Donahue, of the University of Michigan Department on Gerontology, is General Chairman of the state-wide gathering of citizens interested in the problems of the senior citizens. The conference will take place in Lansing's Civic Center.

* * *

THE PUBLIC IS invited to the Lansing meeting, which will be divided into the following eight discussion sections:

1. Population, economic security and employment.
2. Health and medical care, and rehabilitation.
3. Education, free time and recreation.
4. Family, housing and group living.
5. Professional training and research.
6. State and community organization.
7. Religious leadership.
8. Voluntary agency and social services.

Participants will bring to the two-day meeting recommendations of the eleven regional meetings held in all parts of the state during March, April and May.

They also will formulate Michigan's report to the national White House Conference, scheduled for next January in Washington, D. C. MSMS members are urged to make plans early for attending this important meeting.

The Michigan Commission on Aging is responsible for the state-wide conference and the report to the national conference.

* * *

MANFRED LILLIEFORS, research analyst for the Michigan Department of Social Welfare, has been named director of Michigan's new Commission on Aging. Mr. Lilliefors brings to the Commission over 35 years' experience in public and private welfare agency work. Twelve years ago he directed a study of services for the elderly for the Ohio Citizens Council.

Since joining the Social Welfare Department in 1951, Mr. Lilliefors has participated in numerous community and state aging projects. He was chairman of one of two Lansing committees which stimulated the formation of that city's burgeoning Project on Aging.

Created by the 1960 Legislature, the Commission became active on July 1.

ANCILLARY 1269

Says Americans Want Action on Aging

Americans are anxious for action on aging, James Watt, M.D., special assistant on aging to the Secretary of Health, Education and Welfare, declared in a keynote speech at the University of Michigan's 13th annual Conference on Aging.

"If the proper people do not take the proper action soon on some

of our aging problems then improvised and unsound measures will be taken," Doctor Watt said.

The 1961 White House Conference on Aging pre-conference planning has stimulated formation of numerous state and local committees on aging, Doctor Watt declared.

* * *

ANOTHER CONFERENCE SPEAKER said the gradual withdrawal from worldly concerns is a major characteristic of aging in America. This finding was reported by Elaine Cumming, of the New York State Department of Mental Hygiene. She based her conclusion on intensive analysis of 275 adults over 50 in Kansas City, Missouri.

"The aging individual comes to think of time as a scarce commodity rather than as something which stretches forward indefinitely. He re-orients himself to its scarceness by creating new priorities for its use and by giving up certain aspirations he may have had."

Conference participants heard Ernest W. Burgess, of the University of Chicago, Industrial Relations Center, indicate that the preference of older people for familiar friends and social surroundings probably stems from changes in patterns of family living.

* * *

COMPANY-SPONSORED HEALTH programs can help family physicians render better service to their patients, a Cornell University researcher told the conference. Professor Fred Slavik said, "Well thought-out extensions of industrial medicine programs would increase the scope of the family physician's work and result in improved use of his time."

Lawrence Boucher, retirement counselor for Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin, explained that there are several reasons why industry should work for the welfare of older employees. Among them: improved physical and mental health of workers, improved loyalty to organization, increased production, better public and employee relations, and giving positive assurance to workers that their company is interested in developing satisfied groups of retirees.

WSU to Shift Its Medical School To New Medical Center

An addition to Detroit's proposed 100 million dollar Medical Center was decided on by the Wayne State University Board of Governors in June when it approved moving the College of Medicine into the new Medical Center surrounding Harper, Grace, Woman's and Children's Hospitals.

President C. B. Hilberry said a new Medical Sciences Building would probably be built in the vicinity of St. Antoine and Alexandrine, about a mile and a half from the Wayne campus. The present medical science building is four miles from the main campus.

Funds will be sought from the State Legislature and the Federal government.

The present building, built in 1953, will probably be converted to a neuro-psychiatric research center because of its proximity to Lafayette Clinic.

Offer Conference Digest

A complete report of the 1959 National Conference on Homemaker Services, which was co-sponsored by the AMA and other organizations and federal agencies, is available from the United States Government Printing Office. The publication ($1.25) is entitled "Public Health Service Publication No. 746." The report tells the story of the conference which was designed to stimulate the development of homemaker services throughout the United States.

Allergy Society Elects

The Michigan Allergy Society has elected officers for 1960-61. Robert G. Lovell, M.D., Ann Arbor, is the president, assisted by Alex S. Friedlander, M.D., Detroit, vice-president; Hilda M. Hensel, M.D., Monroe, secretary, and Israel Wiener, M.D., Detroit, treasurer.

1960 Winners Chosen for Fredrick A. Coller Award

The Ninth Annual Competition for the Frederick A. Coller Award, sponsored by the Regional Committees on Trauma and Nutrition and the Michigan State Chapter of the American College of Surgeons, was held in Ann Arbor, before 200 members of the American College of Surgeons and their guests.

A total of 20 10-minute papers were given by surgical residents in varying stages of training presenting clinical and experimental researches in problems related to the surgical management of trauma and attendant nutritional problems.

First prize, consisting of the Frederick A. Coller Scroll awarded to both the participant and his hospital and a monetary award of $100, was won by John Mitchell, M.D., Wayne County General Hospital, Eloise, who was sponsored by Drs. Robert Tygart and Wayne Glas. The title of the winning paper was, "A Clinical and Experimental Study of Pulmonary Contusion."

Second prize, a monetary award of $50, was won by Robert Shanahan, M.D., of St. Joseph Mercy Hospi-

(Continued on Page 1272)

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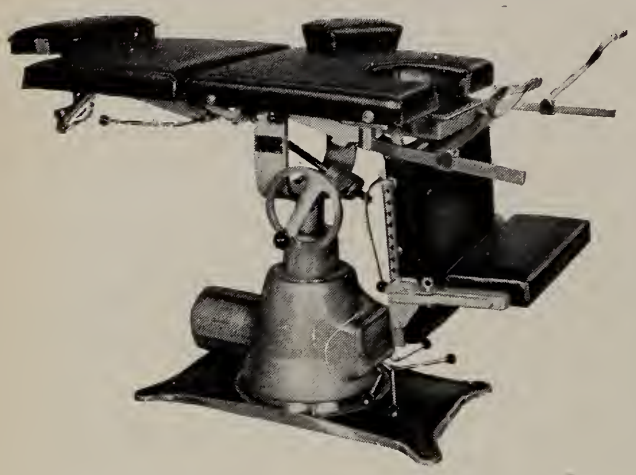

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(Continued from Page 1270)

tal, Ann Arbor. He was sponsored by Dr. Rigdon Ratliff. The title of his paper was, "Chemical Dysentery (Phisohex)".

Third prize, a monetary award of $25, was won by Charles Friend, M.D., of the Wayne County General Hospital. The title of this presentation was, "Studies on Urinary Extravasation." He was sponsored by Drs. Jack Lapides and Wayne Glas.

Following the afternoon scientific session, dinner was served at the Barton Hills Country Club. The awards were then presented, after which Owen H. Wangensteen, M.D., President of the American College of Surgeons, spoke on, "The Education of a Surgeon."

Doctor Wangensteen was also chairman of the committee of judges for the awards. The other judges were: G. Clare Bishop, M.D., Almont; Edwin G. Bovill, M.D., Detroit; Reed M. Nesbit, M.D., Ann Arbor; and William L. Sherman, M.D., Detroit.

Human Cell Bank

Establishment of a "cell bank" to be used for research on cancer, viruses and in general biology, has been announced by Wayne State University College of Medicine and the Child Research Center of Michigan.

The bank, one of three in the United States, will be directed by Dr. Cyril S. Stulberg, associate professor of microbiology and Lawrence Berman, M.D., professor and acting chairman of the Department of Pathology, WSU College of Medicine. Storage of living human and animal cells will be preserved by refrigeration at a temperature of 100 degrees below zero Fahrenheit.

The foramtion of the three cell banks is the result of a new program initiated by the Viruses and Cancer Advisory Panel of the National Cancer Institute.

Receives Cancer Charter

The American Cancer Society national board of directors at the annual meeting at Los Angeles, June 3, issued a charter to the Southeastern Michigan Committee, Inc. Under the terms of the charter, the Committee is required to change its corporate name to "American Cancer Society Southeastern Michigan Division, Inc."

Leads Medical Group

James H. Beaton, M.D., Grand Rapids, has the unique opportunity to serve as president of the Michigan Society of Obstetricians and Gynecologists for the second time. He was president in 1958 and has been elected again to the post for 1960-61. He succeeds G. Paul Hodgkinson, Detroit, president of the American College of Obstetricians and Gynecologists.

Say you saw it in the Journal of the Michigan State Medical Society

Asks States to Advise On Elderly Care

The National Advisory Committee of the White House Conference on Aging is asking all fifty state conferences to make recommendations on how much the Federal Government should do to help the states care for elder citizens.

The White House Conference will meet January 9-12, 1961.

A forty-two-page pamphlet, prepared by former Representative Harry G. Haskall, Republican of Delaware—chairman of the White House conference's planning committee on Federal organization and programs, has just gone out to the states.

Mr. Haskall has analyzed the problems for the future. In the pamphlet, he says:

"It may be pointed out that the legislation setting up the White House Conference on Aging would not have been passed were there not some disposition on the part of members of the Congress, and particularly committee members dealing with legislative proposals in the field to explore further the question of Federal responsibility."

"What are the wishes of the states themselves?" the pamphlet asks. "Do they want Federal grants-in-aid specifically keyed to the aging, and are they prepared to provide matching funds should these be required? If so, through what channels would the states then prefer to receive the Federal grants?"

Urge Youths Enter Mental Health Careers

An attempt to alleviate the manpower shortage in the nation's mental hospitals and clinics by interesting teen-agers in entering careers in the mental health field has been launched by the National Association for Mental Health.

The Association's more than 800 affiliates and 1,000,000 members will participate in a Careers Program to inform teen-agers about job opportunities and requirements in this area. The youths will be contacted directly through schools, clubs, civic organizations, and by school guidance counselors, principals, and teachers.

Decline in Infant Deaths Seen Leveling Off

The steady progress in reducing infant mortality has been leveling off in recent years, and any new significant declines must await breakthroughs in research on leading causes of death, an official of the National Office of Vital Statistics said.

From 1933 to 1949 the infant mortality rate declined by an average of 4.3 per cent a year, but since 1950 the rate has fallen by an annual average of only 2 per cent, reported Iwao M. Moriyama, Ph.D., chief of the mortality analysis of NOVS.

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Infant mortality reached an all-time low of 26 per 1,000 live births in 1956. Since then, the rate has been rising in some states and declining more slowly in others. The estimated rate for the nation last year was 26.4.

The basic problem of the infant death rate remains to be solved, Moriyama said. The death rate for congenital malformations and such diseases of early infancy as birth injuries, asphyxia of the newborn, and prematurity has remained fairly high for many years, he pointed out.

American Trudeau Society Selects New Name

The medical section of the National Tuberculosis Association has changed its name from the American Trudeau Society to the American Thoracic Society. The new name was chosen to reflect more accurately the broad interest of the membership in all diseases of the chest and respiratory tract, as well as tuberculosis.

Organized in 1905 as the American Sanatorium Association, the ATS was reorganized in 1939 as the medical section of the NTA and named in honor of Dr. Trudeau, who established the famous sanatorium that bore his name at Saranac Lake, N. Y. The Society has a membership of more than 5,000 physicians and other scientists in North America and throughout the world.

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Dietary Linoleic Acid and Linoleate—*Effects in Diabetic and Nondiabetic Subjects with and without Vascular Disease*

A paper by Laurance W. Kinsell, M.D., et al., excerpted from Diabetes—The Journal of the American Diabetes Association, May-June 1959

"*Linoleic acid as the major 'hypocholesterolemic agent' in vegetable fats.* The question has been raised as to the mechanism of lowering of the plasma lipids by a variety of vegetable fats. Among the entities present in or absent from vegetable fat which have been considered are: (a) the absence of cholesterol; (b) the presence of certain vegetable sterols; (c) the presence of certain vegetable phospholipids; (d) the nature of one or more of the fatty acids present; (e) the presence of trace materials.

n the diet

The absence of cholesterol has been excluded as a major factor.[5a] Phospholipids, if they contain a sufficient quantity of unsaturated fatty acids may produce a striking reduction. In our experience thus far saturated phospholipids fail to produce such an effect.[7]

Beveridge and his associates believe that vegetable sterols, particularly beta-sitosterol, are responsible to a significant degree for the cholesterol-lowering effect.[8] In our experience the vegetable sterols have a relatively weak and unpredictable effect of this sort.

Since the fatty acids of animal fats are predominantly saturated, and the fatty acids of most vegetable fats are predominantly polyunsaturated, with linoleic acid as the major component of the vegetable fats which lower cholesterol and other lipids, the question arises whether linoleic acid per se is capable of lowering plasma lipids. As reported previously[7] this is indeed the case. In a recent study in a young male with peripheral atherosclerosis in association with elevation of plasma cholesterol and of total lipids, ethyl linoleate produced a greater fall in the plasma lipid levels than had moderate amounts of natural sources of unsaturated fat. Linoleic acid, therefore, appears to be the most important single lipid-lowering component of vegetable fat.

* * *

Significantly higher levels of cholesterol were observed during oleate administration than during administration of equal amounts of linoleate. The relatively low cholesterol values during the second oleate period may have been related to linoleate stored in fat depots. The fatty acid composition of the cholesterol esters reflected the fat which was fed, i.e., the mono-enoic† acid content averaged more than 40 per cent during oleate feeding and less than 20 per cent during linoleate ingestion. Essentially, a mirror image of this resulted during linoleate feeding, at which time di-enoic acid predominated.

* * *

The data presented in this paper appear to establish that linoleic acid administered either as purified ethyl ester or as naturally occurring fat, in sufficient quantity, in properly constructed diets, will reduce plasma lipids to normal levels. The amount of linoleic acid required appears to bear a direct relationship to the amount of saturated fat included in the diet. Linoleic acid requirement may also bear a significant relationship to the amount of atherosclerosis present.

The transition from evaluation of the effect of dietary entities upon plasma lipids, to the evaluation of the effect of such materials upon vascular disease is difficult. However, such evaluation is not impossible. The requisites are adequate measuring sticks and well-controlled studies of sufficient duration. The duration of observation of effects of unsaturated fat in diabetic and nondiabetic patients with vascular disease is in no instance more than five years, and in the majority of instances, less than three. Our present impression is that improvement has occurred in some patients with atherosclerosis and with diabetic retinal and renal disease which was more than we would have anticipated in terms of the natural course of the disease. However, since it is well known that major fluctuations in these diseases can occur in individuals receiving no treatment, we believe it is appropriate at this time to say that no untoward effects appear to result when one prescribes diets containing large amounts of unsaturated fat for patients with such diseases, and it is not impossible that beneficial effects may be associated with such diets."

* * *

5a Kinsell, L.W., Partridge, J. W., Boling, L., Margen, S., and Michaels, G.D.: Dietary modification of serum cholesterol and phospholipid levels. J. Clin. Endocrinol and Met. 12:909, 1952.

7 Kinsell, L. W., Friskey, R., Splitter, S., Michaels, G. D.: Essential fatty acids, lipid metabolism, and atherosclerosis. Lancet 1:334, 1958.

8 Beveridge, J.M., Connell, W.F., Firstbrook, J. B., Mayer, G.A., and Wolfe, M.J.: Effects of certain vegetable and animal fats on plasma lipids of humans. J. Nutrition 56:311, 1955.

† Mono-enoic (mono-unsaturated) acid is presumably synonymous under these conditions with oleic acid and di-enoic (di-unsaturated) acid with linoleic acid

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Total unsaturated	70-75%	Never hydrogenated—completely salt free	

MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

Progressive Report on Nursing Homes

In July, 1957, the Michigan Department of Health was given responsibility for licensing of nursing homes in the state. At that time the department adopted a progressive improvement plan which required that nursing homes meet a progressively larger number of regulations each year. The rules provided for provisional licenses for a period of 36 months and full licenses at least by the end of that time. In 1957, there were 600 homes with about 13,500 beds. About 70 per cent of these homes had full licenses. In 1958 and 1959 the department demanded immediate compliance with 136 of the 152 rules which had been established by the department. In 1960, immediate compliance was required for 200 of the 252 rules.

Our records show that since September of 1957, 104 nursing homes have closed, 72 new homes have opened. This represents a net loss of 32 homes but, at the same time, there has been a net gain of 2,700 beds. This means that today we have more larger nursing homes better equipped to care for their residents and we have eliminated a number of the smaller, poorly equipped and poorly managed homes.

Next year, immediate compliance will be required for nine more rules, leaving only 43 of the 252 rules. At the present time the department is aiming for immediate compliance with all the rules by January 1 of 1962, about five years after the beginning of the new licensing program.

Addition to Staff of Division of Maternal and Child Health

On June 1, 1960, Eugene Crawley, M.D., filled a vacancy of long standing as pediatric consultant and chief of the Child Health Section, Division of Maternal and Child Health. Doctor Crawley is a board certified pediatrician who has been in private practice in Little Rock, Arkansas, for the past eleven years. He is a member of the Committee on the Fetus and Newborn of the American Academy of Pediatrics. Prior to coming to Michigan, he served as chairman of the Committee on the Fetus and Newborn of the Arkansas branch of the American Academy of Pediatrics, chairman of the Arkansas State Medical Society's Committee on School Health and Physical Fitness, a member of the Joint Committee on School Health of the Arkansas State Departments of Education and Health, chairman of the School Health Committee of the Pulaski County Medical Society, and chairman of the Infection Committee for both local hospitals in Little Rock.

Doctor Crawley's services as a consultant in child health are available to local health departments, physicians, and hospitals.

Laboratories to Discontinue Colloidal Gold Tests on Spinal Fluid Specimens

On July 1, 1960, the Division of Laboratories discontinued the performance of colloidal gold tests on spinal fluid specimens.

The development of reliable quantitative methods for the determination of total proteins in spinal fluids has decreased the clinical value of colloidal gold tests. Experience has shown that this procedure is not a reliable means of differentiation of the various types of central nervous system syphilis.

Antibiotic Hunt

Of 9,960 samples of antibiotic substances submitted to the National Cancer Institute, Public Health Service, for screening against cancer cells, 66 have shown marked anticancer activity, and four are now being developed for more advanced investigations.

Vigorous Effort in Hospital Survey and Construction

Reorganization—Plans are underway to move the Section of Hospital Survey and Construction of the Division of Hospital and Medical Facilities to the Michigan Department of Health building on DeWitt Road. The transfer will take place as soon as the space assigned to the Section of Hospital Survey and Construction can be made available.

Summary of Active Projects

	5/60	5/59
In Planning	15	12
Under Construction	17	34
Opened to Use	19	9
Total	51	55

The large number of projects opened to use reflects the completion of projects placed under construction during the anti-recession program of 1958-59.

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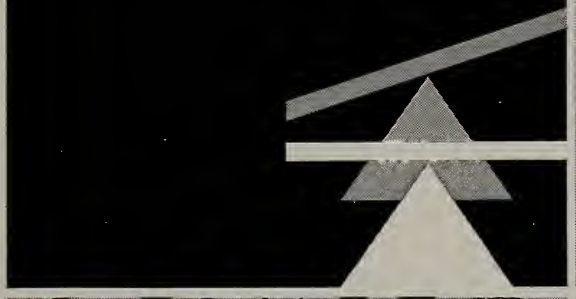

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Pathology Comment

These items are provided by the Michigan Pathological Society

Granulomata

The importance of a systematic approach to the diagnosis of granulomata was emphasized recently by Lyle A. Weed, M.D., Professor of Bacteriology in the University of Minnesota Graduate School. Speaking at the postgraduate medical study course presented by the University of Kansas School of Medicine, Dr. Weed pointed out that granulomata may result from contact of the tissues with a great variety of chemical, physical and microbiologic agents (talc, oils, silica, beryllium, Brucella, fungi, and acid-fast bacteria being the more common ones).

Curettings May be Needed

One must keep in mind that micro-organisms may be few in number and they may not be uniformly distributed throughout the lesions. It is desirable, therefore, to make massive inoculations; to assure this the Pathology Department must be provided with adequate unfixed material. Curettings may be necessary to supplement swabbed specimens.

Fluorescent Antibody Method

Histologic examination many times will give a clue to the etiology, particularly if special stains are used, but such an examination cannot be relied upon to determine the nature of the organism. The morphologic similarity of Cryptococcus, Blastomyces, Histoplasma, and even Coccidioides is frequently very striking. The acid-fast bacilli of M. tuberculosis, M. balnei, M. ulcerans or saprophytes cannot be differentiated in histologic sections by the present techniques. Fluorescent antibody methods may, in the future, become reliable for diagnostic purposes. Carefully controlled studies on a large number of patients will be necessary to determine this.

Search for Microbiologic Agents

The etiologies of certain granulomata remain unknown; e.g., sarcoid, cat scratch fever, eosinophilic granuloma, histiocytosis or the granulomatous form of Hodgkin's disease. However, these should always be studied for microbiologic agents, especially acid-fast bacilli. Brucella and fungi are sometimes present in lesions with these histologic diagnoses. A lesion histologically diagnosed as sarcoid takes on a new meaning when it is found to contain tubercle bacilli. Dr. Weed believes skin tests and other serologic procedures are of more importance for their prognostic value or as epidemiologic tools than in the accurate diagnosis of an infection.

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MICHIGAN MILK DIVISION

EDITORIAL COMMENT

Watch Out!

Virginia Medical Monthly, April, 1960

It is quite possible the powers that be in Washington have more than one reason for complaining about the prices of drugs. Senator Estes Kefauver's drug price investigating subcommittee would have us believe that the government's sole interest is "simply with the price of drugs—a price which must be paid by someone under any system of medical care." I think there is a psychological reason which they hope to keep under cover. This Senate antitrust investigation is just another cunning approach in the attempt to slip socialized medicine in at the back door. It appears to me that Mr. Kefauver almost gave this fact away in his opening statement when he said: "It is not the purpose of these hearings to question in any way the American system of private medical practice." I react to this statement in the same manner I would if a small boy should rush into my office and exclaim: "Doctor, someone batted a baseball through your back window—and I don't want you to think that I did it."

If these investigators' thoughts were just in the drug field, they should also be concerned about quality as well as price. They certainly have shown a lack of interest in the cost of pharmaceutical research and manufacturing, and without research drugs would soon degrade in both quality and quantity. The Senator's line of reasoning in advocating that druggists be allowed to use generic instead of brand names, would throw the drug business into a tail spin within a short time. If one company spends a million dollars to produce a new drug, and another concern is allowed to copy the formula, pay none of the research cost, and market the product at a low price, the results would be disastrous. The better firms would go broke, initiative to find new drugs would be smothered and we would find ourselves advancing in reverse—back towards the "calomel and castor oil days."

I feel that these governmental probes are motivated, primarily, for publicity. If they can attract enough attention by their investigations of the major drug manufacturing firms, and lead the American people into believing that the prices of drugs are too high, it might be possible to gain a large number of sympathetic listeners.

They hope to stir up enough interest in the drug controversy to swing the spotlight away from the doctors for a while, give us a breathing spell, make us feel complacent and lessen our vigil against legislation like the Forand bill. It is their wish that we don't get wise to their twofold purpose of these investigations in relation to the Forand bill itself. First, they will attempt to convince the lay public that older people, on social security, will not be able to pay the high drug prices—and that the government should step in to help. Second, if these tactics could get a Forand type of legislation passed without enough medical publicity to stir up strong opposition—they would be in position to widen social security to cover everybody. Then we would have socialized medicine under another name.

People, consciously, or unconsciously, associate drugs and physicians together. An aroused populace against drug prices would not be too friendly towards the medical profession. Such a situation would gain recruits for a more effective battle against the free practice of medicine. While we sit on the side lines, apparently unmolested, and watch the steam roller attempt to crush the drug firms, we must remain alert. We could get caught napping as Hitler did one time during World War II.

AMA Statesmanship

The New York Times, May 29, 1960

The American Medical Association deserves credit for its statesmanship in staging its conference in Chicago on health insurance plans. Few current national issues are more important, and to more people, than protection from the economic hazards of illness, and few have been more bedeviled by bitter controversy—to which the AMA has contributed its share in the past. But at Chicago a supreme, and successful, effort was made to get all those involved in health insurance to an even keel, with mutual understanding as to the course to steer by.

By invitation of the AMA—and for the first time in history—leaders of organized medicine, labor, industry, voluntary health insurance plans and the insurance companies spent two days in a remarkably amicable discussion of how protection is now being given and how those that give it could do a better job. Opposing economic theories and present political issues were, by common consent, ruled out and, except for outside speakers, with good effect. And the widely held conviction that, if privately provided protection fails to meet the public need and demand, the Gov-

(Continued on Page 1284)

Cartoon idea by pharmacist Emil Magdalener

Many of you may have seen a recent cartoon depicting a midnight scene in front of a pharmacy. A woman is pounding on the door and the pharmacist is leaning out the window of his apartment over the store. "Open up," shouts the woman. "My husband is sick and I need a stamp so I can send this prescription to the mail order house."

The drug that always fails is the drug that isn't there

Far-fetched? Perhaps, but there are those who would have us believe that our present system of drug distribution is inefficient and costly, and should be replaced by presumably more efficient and cheaper centralized or bureaucratic methods. Disregarding the probable political philosophy behind these suggestions, consider what a marvelously intricate and efficient system of drug distribution we have in this country. • From the laboratories of the manufacturers comes a steady stream of new and better drugs for your patients. Warehoused and stocked by drug wholesalers, these products are available in over 53,000 pharmacies scattered across the length and breadth of our land. And woe to the pharmacist who hasn't been provided with yesterday's laboratory discovery for your use in treating a patient today. • The economists speak of "utility of time" and "utility of place." We simply say that you can confidently prescribe *what* you choose, *when* it is needed, *wherever* your patient may be.

This message is brought to you by the producers of prescription drugs as a service to the medical profession. For additional information, please write Pharmaceutical Manufacturers Association, 1411 K Street, N.W., Washington 5, D.C.

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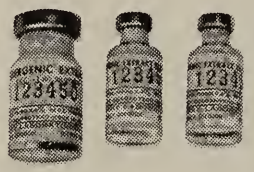
ALLERGIC BALANCE is determined by skin testing. Diagnostic Sets $2 and up. Skin test your patients quickly and safely in your own office.



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AMA Statesmanship

(Continued from Page 1282)

ernment would take over gave the meetings a sense of urgency.

The whole affair was an impressive demonstration that the medical profession has come to realize that, apart from therapy itself, doctors should not have a monopoly in the field of medical care. There was a welcome professional interest in, and tolerance of, diversity and experiment in the administration and economics of medical care—and a recognition of the part which its consumers can and should take in these new directions. There should be more such meetings and it is good news that the AMA's Council on Medical Service will recommend a program for them to the association's convention at Miami Beach next month.

The Family Doctor Holds His Own

Marshall Evening Chronicle, November 18, 1959

The family doctor holds a high and honorable place in American history and tradition. The very phrase brings up pictures of a dedicated physician, fighting his way through storm and darkness in a horse and buggy or a primitive car.

Yet, some years ago there was a feeling that the family doctor was on the way out, and that medical knowledge had become so vast and treatment so complex that only specialists could meet the need. And, for a time, the statistics bore this idea out. In 1940, only one medical student in 10 planned on entering general practice. But a dramatic change has taken place. Today, more students are going into general practice.

There are good reasons for this. The general practitioner of today is far more competent, far more knowledgable, than his predecessors. Post-graduate work, reading, medical meetings and other factors see to it that he keeps up with medical progress. And there is more to the matter than just the question of competence. The family doctor fills a niche that no one else can fill. He knows his patients—and they know him, as a friend as well as a medical man. He is on call when needed. He brings with him confidence and peace of mind—psychological medicines, so to speak, which are important to building and regaining health. He knows when a specialist should be summoned, and what kind.

The American scene wouldn't be the same without the family doctor. It's good to know that he is holding his important place in the great canvas of American medicine.

Selected for Who's Who

Archer A. Claytor, M.D., of Saginaw, has been selected for listing in the next edition of "Who's Who in America." Doctor Claytor was named "Michigan's Foremost Family Physician" by MSMS in 1959. Since 1958, he has served on the Virgin Islands Corporation by appointment from President Eisenhower. He has practiced in Saginaw since 1936.

* * *

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports that the following topics were covered in June on the weekly Sunday morning program over WJBK-TV in Detroit: A Career in Bacteriology, Summer Camp for Diabetics, Health Department Approved Vacation Sites and Atoms for Health.

* * *

POPULAR ATTRACTION—"Healthland," illustrating the dramatic contrast between techniques and materials of health care available 100 years ago and those available today, has proven popular at Freedomland, U.S.A.

Freedomland is the new amusement park located in New York City which is designed and constructed in the outline of the United States and recreates many of the major stories in the development of American history.

Healthland consists of an authentically furnished mid-nineteenth century apothecary shop, a display of Schering's modern pharmaceutical research and production facilities, and an exhibit explaining the requirements and opportunities of various careers in the health fields.

The health exhibition is sponsored by Schering Corporation. AMA helped to prepare the project.

* * *

NURSING FELLOWSHIPS—The National League for Nursing announces continuation of the National League for Nursing Fellowship Program, made possible by a grant from the Commonwealth Fund. The program has been in existence since Spring, 1955, and a total of 147 fellowships have been awarded—117 to candidates for the doctor's degree and 30 to candidates for the master's degree.

The purpose of the NLN Fellowship Program is to provide funds to subsidize programs of advanced study for nurses of proven ability who show promise of making a highly distinctive contribution to nursing.

Application for fellowships must be made in writing to the National League for Nursing, Inc., 10 Columbus Circle, New York 19, New York.

Contributions for this "News Briefs" department are invited from individual physicians, from county societies, and from other health organizations. Please direct your contributions to the Editor.

WIN SKF FELLOWSHIPS—Two Michigan medical students are among 28 who have received fellowships from Smith, Kline & French Laboratories to visit remote parts of the world to study "grass roots" medicine.

The Michigan students are John C. Rienstra, of Grand Rapids, senior at Wayne State University College of Medicine, who gets $1,620 to spend 12 weeks at the Sudan United Mission in Nigeria, and Arnold Schuring, also of Grand Rapids, senior medical student at the University of Michigan. He will receive $2,441 so he and his wife, a registered nurse, can spend 11 weeks at Takum Christian Hospital, Nigeria.

* * *

TO SPEAK IN WEST—Several Michigan doctors of medicine will speak at the American College of Surgeons Clinical Congress October 10-14 at San Francisco. They include T. N. Evans, M.D., Ann Arbor; C. Paul Hodgkinson, M.D., Detroit; Charles S. Stevenson, M.D., Detroit; Harry M. Nelson, M.D., Detroit; Robert C. Bassett, M.D., Lansing; Richard C. Schneider, M.D., Ann Arbor; Alfred M. Large, M.D., Detroit; and Clifford D. Benson, M.D., Detroit.

* * *

HONORED BY MSU—Ruth Kraft Strohschein, M.D., Birmingham, received a Distinguished Alumni Award at the Michigan State University June commencement program. Doctor Strohschein, chief of pediatrics at Grace Hospital in Detroit, was graduated from Michigan State in 1927. Later she was the first woman granted a Ph.D. degree in medical physiology at Ohio State University and was the first woman doctor in Michigan chosen for selective service.

* * *

HONORED—Herbert H. Gardner, Detroit banker who is treasurer of the Michigan Foundation for Medical and Health Education, recently received a University of Michigan honorary alumnus certificate from Dr. Harland Hatcher, U-M president. Mr. Gardner is the 29th recipient of the honorary alumnus status since the school's Regents established this method of honoring distinguished citizens and friends of the university in 1931.

* * *

ATTENDS DENMARK MEETING—Thomas Francis, Jr., M.D., Ann Arbor, participated in the International Poliomyelitis Congress in Copenhagen, Denmark, in July.

* * *

PROJECT HOPE—"Project Hope," a plan that will send four modern hospital ships to ports-of-call around the world, was formally endorsed at Miami Beach by the American Academy of General Practice. The AAGP Board of Directors made a $1,000 contribution. The Academy further urged its 26,000 members to volunteer for either one-year or two-month tours of duty on one of the four newly equipped ships.

* * *

POLIO IMMUNIZATION—American and Russian scientists met recently in Moscow on the Sabin oral polio vaccine. The scientists presented voluminous scientific data concerning manufacture, safety for the vaccinated, spread to the unvaccinated, possible reversion to virulence, effectiveness and administration of the Sabin live-virus vaccine.

The vaccine, originally developed by Albert B. Sabin, M.D., of the University of Cincinnati, with more than $1 million in grants from The National Foundation, was given to 15 million Soviet citizens last year. It has now been fed to more than 60 million there and is currently being manufactured in the U.S.S.R. at the rate of several million doses a

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"Most mild diabetic patients were well controlled on a biguanide compound [DBI], and such control was occasionally superior to that of insulin. This was true regardless of age, duration of diabetes, or response to tolbutamide."[2]

"DBI has been able to replace insulin or other hypoglycemic agents with desirable regulation of the diabetes when it is used in conjunction with diet in the management of adult and otherwise stable diabetes."[3]

sulfonylurea failures

Among those diabetics who responded to tolbutamide initially and became secondary failures **DBI "gave a satisfactory response in 55%."**[4]

"DBI is capable of restoring control in a considerable portion of patients in whom sulfonylurea compounds have failed, either primarily or secondarily."[5]

"All twelve secondary tolbutamide failures have done well on DBI."[6]

"34 out of 59 sulfonylurea primary failures were successfully treated with DBI."[7]

week. In Russia, the Sabine vaccine has officially been accepted for use in an all-out immunization program.

* * *

JOINS ABBOTT—Harold D. Kautz, M.D., secretary of the Council on Drugs of the American Medical Association, has taken a position as director of the division of product information in the Medical Department of Abbott Laboratories, North Chicago, Illinois.

Doctor Kautz, who has been connected with the AMA in various capacities for 21 years, was guest speaker at the 1960 Michigan Clinical Institute.

* * *

SEEK ESSAYS—The American Urological Association offers an annual award of $1000 for essays on the result of some clinical or laboratory research in urology. Competition is limited to urologists who have been graduated not more than 10 years, and to hospital interns and residents doing research work in urology.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Hotel Biltmore, Los Angeles, California, May 22-25, 1961.

For particulars write the Executive Secretary, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland.

* * *

1964 CLASS AT UM—The University of Michigan Medical School has accepted 194 students to enter in September as the Class of 1964. An additional 26 students have been chosen as alternates, to fill vacancies created by drop-out, and to bring the total entering class to 200. Twenty of those accepted are women, twice the number accepted last year.

The University of Michigan has the largest entering class of any medical school in the nation. Nearly 800 students applied for the 200 places.

Eighty-five of the entering students took undergraduate work at the U-M. Other Michigan schools represented include: Wayne State University, 21; Albion College, 13; Michigan State University, 7; Hope College, 6; Western Michigan University, 6; Calvin College, 5. The Class of '64 also includes representatives from Hawaii, Germany and The West Indies.

* * *

FORTHCOMING BOOK—The book "Americans View Their Mental Health" was written by Gerald Gurin, Joseph Veroff, and Sheila Feld of The University of Michigan Survey Research Center. This book summarizes the first nationwide, family-by-family analysis of how Americans respond to the pressures of modern living. The study was conducted by the Survey Research Center for the Joint Commission on Mental Illness and Health under an authorization from the Congress of the U. S.

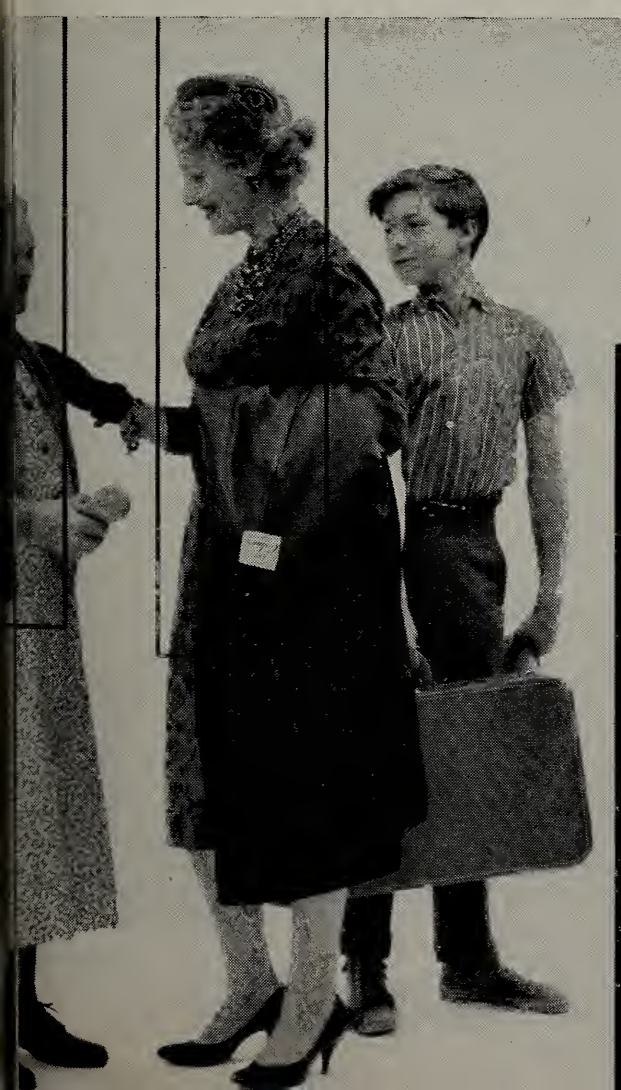
* * *

MEDICAL EDUCATION GRANT—A contribution of $15,000 to the National Fund for Medical Education was made recently by the Schering Foundation. Established and supported by Schering Corporation of Bloomfield, New Jersey, the Foundation is a nonprofit concern dedicated to philanthropic support of charitable, educational and scientific projects, primarily in the field of medicine and health.

Since 1952, NFME has given $22 million to medical schools.

* * *

HELPS SCHOOL HEALTH—A. J. May, M.D., Benton Harbor, was appointed as medical representative to the newly created Health Council of the Benton Harbor School System.



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1. Walker, R. S.: Brit. M. J. 2:405, 1959.
2. Odell, W. D., et al.: A.M.A. Arch. Int. Med. 102:520, 1958.
3. Pearlman, W.: Phenformin Symposium, Houston, Feb. 1959.
4. DeLawter, D. E., et al.: J.A.M.A. 171:1786 (Nov. 28) 1959.
5. McKendry, J. B., et al.: Canad. M. A. J. 80:773, 1959.
6. Miller, E. C.: Phenformin Symposium, Houston, Feb. 1959.
7. Krall, L. P.: Applied Therapeutics 2:137, 1960.

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RACKHAM RESEARCH GRANTS—Research grants totaling $112,519 have been awarded by the Horace H. Rackham School of Graduate Studies to 65 faculty members of the University of Michigan. Following is a list of faculty recipients and their general area of research:

Health Sciences: William W. Coon (surgery); Wilfrid T. Dempster (anatomy); Pearl L. Kendrick (epidemiology); Charles A. Sanislow (surgery); Park W. Willis (internal medicine); George D. Zuidema (surgery). Nancy O. Lurie (public health); and Norman W. Rieck (anatomy).

* * *

SEVENTY-FOURTH BLUE SHIELD PLAN—Surgical Service, Incorporated, a medical-surgical Plan serving the State of New Mexico with headquarters in Albuquerque, has been approved as an active member of the National Association of Blue Shield Plans. The New Mexico Plan has been in operation for 13 years and has enrolled more than 55,000 members in that period of time.

New Mexico Blue Shield brings to 74 the number of Blue Shield Plans and affiliates in the United States and Canada.

* * *

MORE CANCER GRANTS—The American Cancer Society has awarded $89,425 in three research grants for cancer studies at Wayne State University. These grants are part of the Society's current support of cancer research across the nation to a total of $17,500,000.

The Wayne studies are under the direction of James E. Lofstrom, M.D., Melvin Sikov, M.D., Arthur J. Vorwald, M.D., and T. T. Tchen.

* * *

PROFESSORS RETIRE—Two professors of internal medicine, Cyrus C. Sturgis, M.D., and Paul Barker, M.D., have retired from the University of Michigan after 33 and 35 years of service, respectively.

* * *

BEGIN NEW U-M PLAN—Thirty-two top-ranking men and women students of The University of Michigan Medical School were selected for a new special studies program this fall.

The hand-picked group of thirteen entering freshmen and nineteen sophomores will be in an extensive extra-curricular program, developed earlier this year as an incentive to superior students. The work is an addition to the basic requirements of the Medical School course.

* * *

NAMED TO HIGHER POST—John A. MacCartney, director of professional relations for Parke, Davis & Company since 1946, has been appointed director of public relations for the world-wide pharmaceutical firm. Mr. MacCartney succeeds Ralph G. Sickels, who will retire December 31 after forty years of service in public relations work with Parke-Davis.

Mr. MacCartney, a professional pharmacist, is a past president of the 30,000-member American Pharmaceutical Association.

Congratulations!

* * *

M.D. LOCATIONS—Through June 30, 1960

Assisted by Michigan Health Council—Albert C. Adams, M.D., Flint; Peter S. Thoms, M.D., Mt. Morris.

Placed by Michigan Health Council—Alvin J. Ratzlaff, M.D., Onsted.

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MEDICAL MEETINGS U.S.A.

SEPTEMBER

National Cancer Conference, American Cancer Society, Inc., and National Cancer Institute, September 13-15, Minneapolis, Minnesota. Ronald M. Grant, M.D., 521 West 57th Street, New York 19, Coordinator.

Ninth United States Civil Defense Council Conference, September 21-22, at the Leamington Hotel, Minneapolis, Minnesota.

College of American Pathologists, September 24-27, Palmer House, Chicago. Arthur H. Dearing, M.D., 2115 Prudential Plaza, Chicago, Executive Director.

Annual Otolaryngologic Assembly, September 24-30, University of Illinois College of Medicine Department of Otolaryngology, Chicago, Illinois. Write Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

American Society of Clinical Pathologists, September 24-October 2, Palmer House, Chicago. Claude E. Wells, 445 Lake Shore Drive, Chicago 11, Executive Secretary.

Eighth Congress of the Pan-Pacific Surgical Association, September 27-October 5, Honolulu, Hawaii. F. J. Pinkerton, M.D., Director General of the Pan-Pacific Surgical Association, Suite 230, Alexander Young Building, Honolulu 13, Hawaii.

American Medical Writer's Association, November 18 and 19, Hotel Morrison. Harold Swanberg, M.D., 510 Maine Street, Quincy, Illinois, Secretary.

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Dosage: One tablet one-half to one hour before each meal.

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OCTOBER

The American College of Surgeons 47th Annual Clinical Conference, October 2-6, Chicago.

Central Association of Obstetricians and Gynecologists, October 6-8, Kansas City, Missouri. Herman L. Gardner, M.D., 633 Hermann Professional Building, Houston 25, Texas, Secretary-Treasurer.

American Otorhinological Society for Plastic Surgery, October 9, Conrad Hilton Hotel, Chicago.

American Academy of Ophthalmology and Otolaryngology, October 9-14, Palmer House, Chicago. William L. Benedict, M.D., 15 Second Street, N.W., Rochester, Minnesota, Executive Secretary.

American Medical Association Industrial Health Conference, October 10-12, Hotel Charlotte, Charlotte, North Carolina.

Regional State Medical Journal Editors Conference, October 15-16, Phoenix Hotel, Lexington, Kentucky. J. P. Sanford, 1169 Eastern Parkway, Louisville 17, Managing Editor, Journal of Kentucky State Medical Association.

American Academy of Pediatrics, October 17-20, Palmer House, Chicago. E. H. Christopherson, M.D., 1801 Hinman Avenue, Evanston, Illinois, Executive Director.

National Safety Congress, October 17-21, Chicago. R. L. Forney, 425 North Michigan Avenue, Chicago 11, Secretary.

Postgraduate course in Laryngology and Bronchoesophagology, October 17-29, The Department of Otolaryngology, University of Illinois College of Medicine, Chicago, Illinois. Write Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

Clinical Conference on Gynecologic Cancer, October 21 and 22, The University of Texas M.D. Anderson Hospital and Tumor Institute, Houston, Texas.

American Heart Association, Inc., October 21-25, Jefferson Hotel, St. Louis. Rome A. Betts, 44 East 23rd Street, New York 10, Executive Director.

Mid-West Forum on Allergy, October 22-23, Penn-Sheraton Hotel, Pittsburgh. Macy I. Levine, 3347 Forbes Avenue, Pittsburgh 13, Program Chairman.

American College of Gastroenterology Annual Course in Postgraduate Gastroenterology, October 27-29, Bellevue-Stratford Hotel, Philadelphia, Pennsylvania. Write American College of Gastroenterology, 33 West 60th Street, New York 23, New York.

Clinical Orthopaedic Society, Inc., October, Milwaukee. Charles H. Frantz, M.D., 1810 Wealthy Avenue, S.E., Grand Rapids, Michigan, Secretary-Treasurer.

NOVEMBER

Thirteenth Annual Conference on Electrical Techniques in Medicine and Biology, October 31-November 1-2, Sheraton-Park Hotel, Washington, D. C.

American Medical Association Clinical Meeting, November 28-December 1, Washington, D. C.

DECEMBER

American Academy of Dermatology and Syphilology, December 3-8, Palmer House, Chicago. Robert R. Kierland, M.D., First National Bank Building, Rochester, Minnesota, Secretary-Treasurer.

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IN MEMORIAM

ELLIS H. STEFFENSEN, M.D., forty-eight, Detroit ophthalmologist, died April 9, 1960.

Doctor Steffensen, a native of Michigan, was graduated from the University of Michigan Medical School in 1940. He interned at Henry Ford Hospital in 1942-43. He was in military service from that time until 1946, when he returned to Henry Ford Hospital for his residency. He continued serving there as a staff physician, specializing in ophthalmology, until the time of his death.

SIDNEY BERMAN, M.D., forty-eight, retired Detroit physician, died April 20, 1960.

Born in New York City, Doctor Berman was a graduate of Wayne State University School of Medicine in 1938. He interned at Wayne County General Hospital and had his residency at Michael Reese Hospital in Chicago and Cedars of Lebanon in Los Angeles.

Doctor Berman returned to Detroit in 1954 to practice. He retired from practice in 1959 because of illness.

WILLIAM F. HAMILTON, M.D., eighty-four, a Detroit physician, died April 2, 1960.

Doctor Hamilton was graduated from Northwestern University Medical School in 1911. He returned to Detroit where he practiced his specialty, Ear, Nose and Throat. He was on the staff of Shurly Hospital.

He retired from practice in June of 1956.

GORDON B. MYERS, M.D., fifty-six, former professor and chairman of the department of medicine of the Wayne State University College of Medicine, died June 5, 1960.

A native of Detroit and a graduate of the University of Michigan Medical School, Doctor Myers served his internship and residency at Receiving Hospital. He served two additional years of medical residency at Peter Brent Brigham Hospital in Boston and did more work in Wurzburg, Germany.

He became the first full-time member of the Department of Medicine at WSU in 1934. In 1936 he became professor and chairman of the department and director of medicine at Receiving Hospital. Doctor Myers was also chief consultant in medicine at the Dearborn Veterans Hospital and the United States Public Health Service (Marine) Hospital at Windmill Pointe.

He dropped his administrative duties several years ago because of illness and retired a year ago.

He was a member of the Association of American Physicians, the American Society for Clinical Investigation, the Central Society for Clinical Research, the Detroit Academy of Medicine, Detroit Medical Club, Detroit Heart Club and Lochmoor Golf and Country Club.

JOHN RITSEMA, M.D., fifty-nine, Sebewaing physician and civic leader, died May 18, 1960.

Doctor Ritsema was graduated from the University of

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meprobamate **plus** d-amphetamine...suppresses appetite...elevates mood... reduces tension...**without** insomnia, overstimulation or barbiturate hangover.

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Michigan Medical School in 1925. He was chief of staff of the medical section of Bay City General hospital and on the staff of Mercy hospital in Bay City.

Doctor Ritsema was currently serving as president of the Huron County Medical Society.

In addition to his medical affiliations, he was past master of Wallace Lodge No. 434 F. & A. M., a member of Bay City Consistory, president of Sebewaing school board, past president of Sebewaing Rotary Club, served ten years as secretary of the Council of Administration of Sebewaing EUB church.

WILLIAM P. WOODWORTH, M.D., seventy-eight, medical director of the Red Cross in Detroit from 1951 to 1957, died May 22, 1960.

He was a former chief of staff at Providence Hospital.

Doctor Woodworth, noted in Detroit amateur music circles, was in demand as a cellist with various ensembles.

He was past president of the Bohemian Club and a Spanish-American War veteran.

COMMUNICATIONS

Milton A. Darling, M.D., President
Michigan State Medical Society
Dear Doctor Darling:

Thank you for your letter in which you informed me that I have become an active member of the Michigan State Medical Society.

I consider that being a member in the Michigan State Medical Society is a distinct honor and wish to express my sincere thanks to you and the entire Society for accepting me.

I am looking forward to being an active and useful member of this great Association.

Yours very truly,
F. E. Fournier, M.D.

951 East Lafayette
Detroit 7, Michigan

Did You Know?

. . . that health insurance benefit payments by insurance companies are running 10 per cent ahead of last year with $767 million in benefits distributed during the first three months of 1960.

. . . that about 65 per cent of the 4.3 million babies born in the U. S. last year had part of their initial medical expenses paid by health insurance, and that total maternity benefit payments were estimated at $527 million.

. . . that an estimated 46 million children in the U. S. now are protected against the costs of ill health by health insurance.

. . . that in 1959 the American public received an average of $8 million a day in health insurance benefits from insurance companies alone.

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

WOMEN AND FATIGUE. A Woman Doctor's Answer. Marion Hilliard, M.D. Garden City, New York: Doubleday & Company, Inc., 1960. Price $2.95.

This is a short review of the causes and effects of fatigue in women. The author presents the mental as well as the physiological basis of fatigue and its relationship to the various glandular changes found throughout a woman's life. One of the most interesting sections explains the real and practical solutions of fatigue as well as presenting clinical examples derived from the author's medical practice. This book is primarily of value to the layman but makes interesting reading for those of the medical profession.

J. P.

BONE TUMORS. By Louis Lichtenstein, M.D., Chief Pathologist, General Medical and Surgical Hospital, Veterans Administration Center, Los Angeles; Fellow, New York Academy of Medicine; Professor Extraordinario, National University of Mexico; Consultant in Bone Tumors, Tumor Tissue Registry of California Medical Association Cancer Commission; Consultant in Pathology, Los Angeles County Hospital; Consultant, City of Hope Medical Center. Second Edition. 220 illustrations. St. Louis: The C. V. Mosby Company, 1959. Price, $12.00.

The introduction to, and classification of, bone tumors in this book is extensive and thought provoking.

There is a good summary and discussion at the end of the chapter devoted to each tumor with a comparison of the exact value of x-ray and histologic diagnosis with a forthright opinion as to treatment.

The text is well written in an interesting manner and is somewhat reminiscent of the works of Dr. Boyd.

X-ray reproductions are excellent and numerous and exceed by fat the number of photomicrographs. The illustrations will be of interest to physicians in general, as well as to radiologists and orthopedists, and possibly slightly less so to pathologists.

The chapter on non-neoplastic lesions of the bone, which may be erroneously diagnosed as tumors, is particularly current in thought and excellent. This chapter is included in a lengthy and worthwhile appendix that also discusses such related topics, as villonodular synovitis, osteochondromatosis and synovioma. Many times merely a brief mention is made of certain entities and the reader is referred to a well-documented bibliography for further detail, but I doubt if few pertinent subjects are lacking.

A. A. H.

OBSTETRIC EMERGENCIES. Edited by Martin L. Stone, M.D. PEDIATRIC GYNECOLOGY. Edited by John W. Huffman, M.D. New York. Paul B. Hoeber, Inc. Medical Division of Harper & Brothers, 1960.

The first portion of this book deals with Obstetric emergencies. The subjects included are: anaesthesia, failed forceps, transverse presentations, rupture of the uterus.

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toxemia, abruptio placentae, postpartum hemorrhage, acute renal failure, abdominal emergencies, and cardiac arrest. These subjects are excellently presented. Their brevity and completeness is of great help to those who want a full résumé without too much detail. A complete reference is presented for those who desire more information. The chapter on postpartum hemorrhage is excellent.

The second portion of this book is concerned with Pediatric Gynecology. This is a relatively new subject but one of great importance. It is of value to the pediatrician, gynecologist and the general practitioner. One of the most interesting chapters is on vaginitis. The subject of the intersexed female is very complete and detailed. The authors point out that diagnosis and medical treatment of children is of prime importance especially in constitutional sexual precocity. Too many laparotomies and hysterectomies on children are done which are not necessary. This section would be of great value to all people in the medical field and is excellent as a reference.

J. P.

THE TREATMENT OF BRONCHIAL NEOPLASMS. By Robert R. Shaw, M.D., and Donald L. Paulson, M.D., with a chapter on Bronchial Adenoma by John Lester Kee, Jr., M.D. Springfield, Illinois: Charles C Thomas, 1959. Price, $8.00.

Today, it is extremely refreshing to pick up a book on carcinoma of the lung without delving through many statistics and references, to prove the author's concepts, as to the etiology. Indeed, "The Treatment of Bronchial Neoplasms" by Shaw and Paulson, does not even mention whether the filter on a cigarette is of value or not. Instead, the book is a straightforward presentation of the philosophy of the authors, concerning the rationale of treatment, based upon the theory of biological predeterminism of tumors and upon their experience, with different types of operative procedures, irradiation, and chemotherapy. The book is written entirely from a Surgeon's standpoint. It does not go into the techniques of irradiation but rather gives intelligent indications. It mentions the application of certain chemotherapeutic agents, and points out rather well the fallacy of empirically applying a radical operation to all patients with cancer. The book is small, readable, and gives an approach to the problem of cancer of the lung, which may be challenged by some people as being conservative, but yet does not do a disservice to the patient.

This publication is one of the John Alexander Monograph Series, which is written by his former residents, with the unselfish desire to perpetuate the discipline and high standards of their mentor. As with the other books in the series, it does not really come under the category as a monograph, because it is not all inclusive in its bibliography and coverage of the subject matter. Nevertheless, Surgeons and Physicians, dealing with this dread disease, will find the information and therapeutic philosophy extremely valuable.

E. J. K.

DIABETES WITH A CHAPTER ON HYPOGLYCEMIA. By 54 authors. Edited by Robert H. Williams, M.D., Executive Officer and Professor of Medicine, University of Washington; Physician-in-Chief, University Hospital, Seattle. 771 pages, 192 illustrations. 23 in full color. New York: Paul B. Hoeber, Inc. Medical Division of Harper & Brothers, 1960. Price, $20.00.

This edited volume with its adequate index is the finest one-volume work on diabetes and hypoglycemia ever read by the reviewer. It covers the field of diabetes completely. It is interestingly and simply written with many excellent illustrations. The chapter on diet is especially well done with attention given to the latest theories of diet control, such as saturated versus unsaturated fats.

Oral drugs in the treatment of diabetes are allotted 35 pages; the subject is well covered. Hypoglycemia is interestingly and comprehensively covered as are the many complications of diabetes.

This is an especially fine volume which any physician, who comes in contact with diabetes in his practice, should have in his library.

L. P. S.

FIRST AID DIAGNOSIS AND MANAGEMENT. By Warren H. Cole, Professor and Head of the Department of Surgery, University of Illinois College of Medicine; Surgeon-in-Chief, Research and Educational Hospitals, Chicago, and Charles B. Puestow, Clinical Professor of Surgery, University of Illinois College of Medicine and Graduate School; Chief, Surgical Service, Veterans Administration Hospital, Hines; Attending Surgeon, Research and Educational Hospitals; Senior Surgeon, Henrotin Hospital; Associate Surgeon, Presbyterian-St. Luke's Hospital, Chicago; Colonel, M.C., A.U.S., with 16 Contributing Authors. New York: Appleton-Century-Crofts, Inc. 1960. Price, $6.25.

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H.A.

COMMUNICABLE AND INFECTIOUS DISEASES. Diagnosis, Prevention, Treatment. By Franklin H. Top, A.B., M.D., M.P.H.. F.A.C.P., F.A.A.P., F.A.P.H.A., Professor and Head, Department of Hygiene and Preventive Medicine, State University of Iowa, Iowa City, Iowa; Director, University Department of Health, and Director, Institute of Agricultural Medicine, State University of Iowa; Consulting Director, State (of Iowa) Hygienic Laboratories; Consultant in Infectious Diseases, University Hospital, Iowa City, Iowa; Consultant Communicable Disease Center, U. S. Public Health Service, Atlanta Georgia; formerly Professor of Epidemiology, School of Public Health, and Professor of Pediatrics, College of Medical Sciences, University of Minnesota, Minneapolis, Minn.; formerly Clinical Professor of Preventive Medicine and Public Health, Wayne State University College of Medicine, Detroit, Mich.; formerly Director, Herman Kiefer Hospital, Detroit, Mich., and Collaborators. Fourth Edition. 122 figures and 15 color plates. St. Louis: The C. V. Mosby Company, 1960. Price, $20.00.

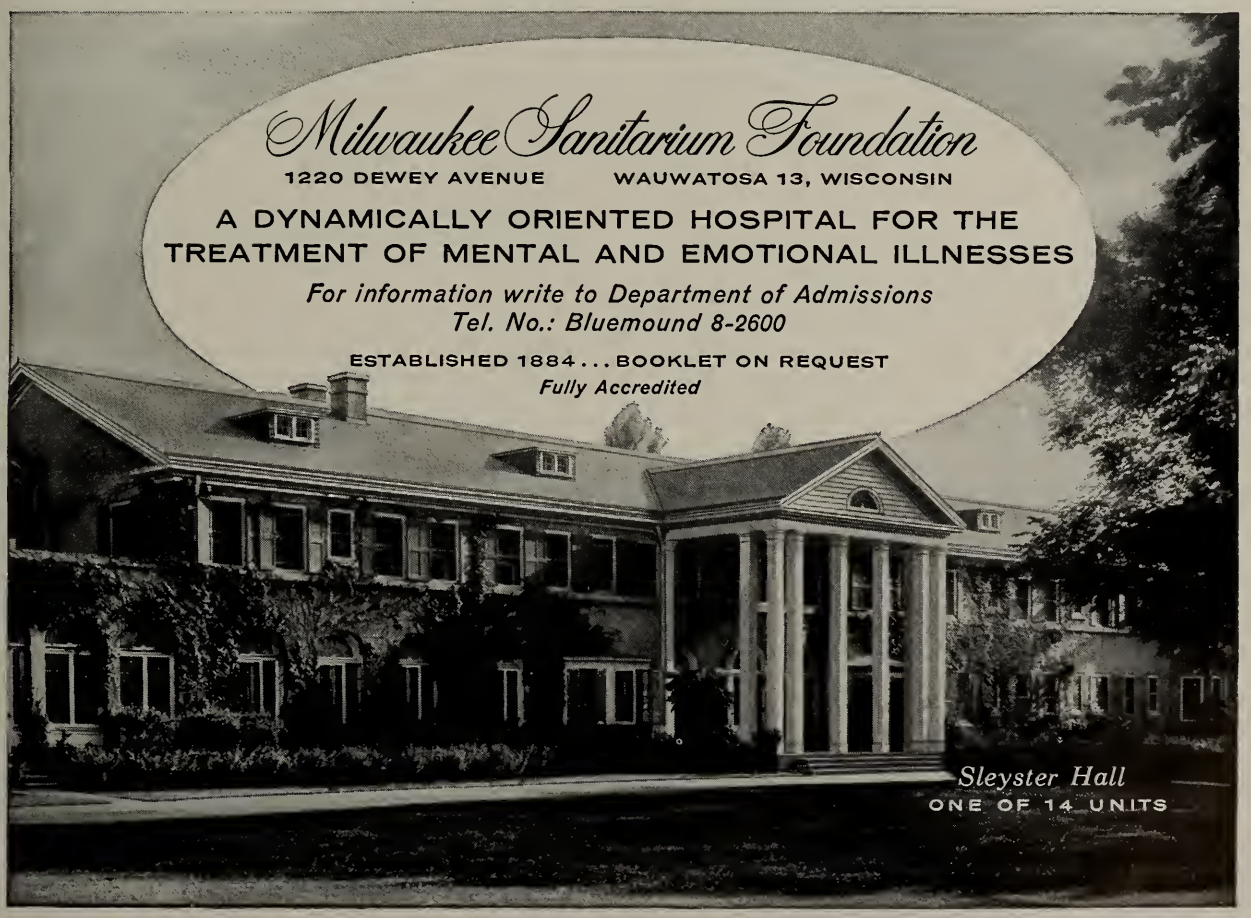
This is a most useful and welcome text covering diagnosis, prevention, and treatment of communicable and infectious disease. It is welcome particularly because it presents up-to-the-minute treatment methods of several diseases that are taking important positions in present-day practice—for example, staphylococcal infections, pathogenic E. coli in enteritis—as well as the role of many recently isolated viruses.

Among the many fine features of this book are the mass of factual material presented with a minimum of verbage, the outstanding color- and black-and-white-photographs, the choice of authoritative contributors, and the fine coverage of the field. Because communicable disease teaching material is difficult to come by during the formal medical education period, many practitioners will find this text a necessary aid in diagnosis and treatment. The man in active practice will undoubtedly find repeated use for this book. It is a fine one.

F. J. M.

HOSPITAL UTILIZATION UNDER INSURANCE. Monograph No. 6. By Milton I. Roemer, M.D., and Max Shain, American Hospital Association, 840 North Lake Shore Drive, Chicago 11, Illinois, $1.75.

CIBA FOUNDATION SYMPOSIUM ON THE BIOSYNTHESIS OF TERPENES AND STEROLS. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Maeve O'Connor, B.A. 102 illustrations. Boston: Little, Brown and Company, 1959. Price, $8.75.



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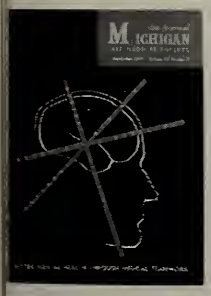

THE COVER

As the psychiatrist needs the support of the physician in other fields, the physician also needs the support of the psychiatrist. This month's cover symbolizes intelligent cooperation, benefiting mental health and all of medicine.

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President's Page

"FIVE MORE TO GO"

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President

Michigan State Medical Society

Presidents of medical societies come and go, but the medical profession and its organization continue on and on.

In 1965, the Michigan State Medical Society will celebrate its 100th anniversary. Actually, there has existed an organization of doctors of medicine in Michigan for more than a hundred years, but the Michigan State Medical Society, as we know the organization today, will be 100 years old in just five more years.

Consequently, this year, working with President-Elect Kenneth Johnson of Lansing, we have taken cognizance of the necessity for a well-documented continuing and progressive medical society program plus the desirability of aiming that program toward an attainable goal that would culminate with the celebration of 100 years of service.

We believe we have such a program. It will be presented to the House of Delegates at its annual meeting this September in the form of a series of resolutions; a sort of "President's package" so to speak.

We are not so naive as to believe that at this time we can predict the course of the program even a few years in advance. Certainly, it will need to be reviewed annually and strengthened with new ideas and better means of implementing them.

But we do hope that by setting up some guide lines, and with some reasonable and interesting goals in view, we can make a good beginning in a program that will make grow, even brighter, the sun of medicine. I have been happy to be a part of this planning, just as I have enjoyed to the utmost the opportunity to serve as your President during the past year. I turn over the reins of this office in the full knowledge that my successor will serve you well as, together, we go forward to greater achievement.

Facts About Proposal No. 3 on the November Ballot

A Constitutional Amendment Relating to the Calling of a Constitutional Convention

ED NOTE: *The specific wording of this proposed constitutional amendment will be found at the end of this article* (Page 1314). *This presentation will attempt to delineate its major features and the most current arguments for and against the passage of this proposed Constitutional change.*

A proposal relating to the calling of a Constitutional Convention will be on the November ballot.

It will be listed as Proposal No. 3 of the constitutional amendments offered in this General Election. This proposal is designed to make several far-reaching changes in the procedure for calling and conducting a Con-Con (Constitutional Convention).

A primary feature of the proposal is a change in regard to the composition of any future Con-Con. Instead of three delegates from each of the 34 Senatorial Districts, as presently prescribed by the State Constitution (Making a total of 102 delegates), there would be one delegate from each State Senatorial District and one from each State Representative District (making a total of 144).

Rural people point out that this would make possible domination by metropolitan areas in any future Con-Con.

People from urban areas agree with this interpretation and point out that the number of people in a given area should determine that area's influence in a Constitutional Convention.

Another important change would reduce the vote required to call a Con-Con from a majority of those participating in an election to a majority of those voting on this particular issue.

Those opposing this amendment insist that a proposal as fundamental as holding a convention to change Michigan's Constitution should not be undertaken unless a majority of the voters participating in the election favor this idea. Proponents point out that many of those participating in the election do not vote upon Constitutional Amendments and that the will of the people will be better served if only a majority of those voting on the issue were required for its passage.

A third change embodied in the proposal would change the timetable for choosing delegates and holding a convention. The proposal would require that the delegates be nominated and elected within four months following a vote to hold a Con-Con. Consequently, if the proposal is adopted this November, the question of holding a Con-Con on the new basis would be placed on the April 1961 ballot. So if the Con-Con were voted on favorably next April, Michigan would hold its Con-Con in the fall of 1961.

Opponents of the proposal point out the direct cost of necessary special elections and the holding of a Con-Con would be considerably in excess of $2,000,000. Proponents argue that this is a small price to pay for revisions which, they believe, should be made at the earliest date.

It is interesting to note that during the 51 years that Michigan has had its present Constitution, the people have voted on 122 amend-

ments, approving 66 and rejecting 56.

Those opposing Proposal No. 3 on the November 8 ballot also tend to oppose the holding of a Con-Con altogether. They point out that for nearly 50 years, court decisions and interpretations have been accumulating and with a new Constitution these former procedures would be no longer applicable.

Those favoring the proposal believe that if it passes:

(a) A Constitutional Convention can be more easily called.
(b) The Constitutional Convention can remove such things as
    1. the 15-mill limitation on general property taxes.
    2. The sales tax distribution to schools and local units of government.
    3. The restricting of highway revenues for road repairs and construction.

Following the holding of a Constitutional Convention, the actions and recommendations of a convention must needs be submitted to the populace for adoption.

The holding of a Con-Con was voted on in 1958. At that time 62 per cent of those voting in the election voted on the Con-Con issue. The vote fell 15 per cent short of the necessary percentage needed to call a Constitutional Convention under the Constitution as presently in force.

PROPOSAL NO. 3—AMENDMENT TO THE CONSTITUTION

To Amend Section 4, Article XVII of the Constitution of the State of Michigan:

Sec. 4, Article XVII—"At the Biennial Spring Election to be held in the year 1961, in each sixteenth year thereafter and at such times as may be provided by law, the question of a General Revision of the Constitution shall be submitted to the Electors qualified to vote for members of the Legislature. In case a majority of the Electors voting on the question shall decide in favor of a Convention for such purpose, at an Election to be held not later than four months after the Proposal shall have been certified as approved, the Electors of each House of Representatives District as then organized shall Elect One Delegate for each State Representative to which the District is entitled and the Electors of each Senatorial District as then organized shall Elect One Delegate for each State Senator to which the District is entitled. The Delegate so elected shall convene at the Capital City on the First Tuesday in October next succeeding such Election, and shall continue their sessions until the business of the convention shall be completed. A majority of the delegates elected shall constitute a quorum for the transaction of business. The convention shall choose its own officers, determine the rules of its proceedings and judge of the qualifications, elections and returns of its members. In case of a vacancy by death, resignation or otherwise, of any delegate, such vacancy shall be filled by appointment by the governor of a qualified resident of the same district. The convention shall have power to appoint such officers, employes and assistants as it may deem necessary and to fix their compensation, and to provide for the printing and distribution of its documents, journals and proceedings. Each delegate shall receive for his services the sum of 1,000 dollars and the same mileage as shall then be payable to members of the legislature, but such compensation may be increased by law. No proposed constitution or amendment adopted by such convention shall be submitted to the electors for approval as hereinafter provided unless by the assent of a majority of all the delegates elected to the convention, the yeas and nays being entered on the journal. Any proposed constitution or amendments adopted by such convention shall be submitted to the qualified electors in the manner provided by such convention on the first Monday in April following the final adjournment of the convention; but, in case an interval of at least 90 days shall not intervene between such final adjournment and the date of such election, then it shall be submitted at the next general election. Upon the approval of such constitution or amendments by a majority of the qualified electors voting thereon such constitution or amendments shall take effect on the first day of January following the approval thereof.

Offer Course on Chest Diseases

A postgraduate course, Clinical Cardiopulmonary Physiology, will be offered by the Council on Postgraduate Medical Education of the American College of Chest Physicians at the Sheraton Towers Hotel, Chicago, October 24-28. For information, write to American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

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HIGHLIGHTS of MSMS Council

Mid-summer Session of July 14-15, 1960

The following committee reports were presented: (1) Ninth Councilor District Medical Care Insurance Committee, meeting of May 11; (2) Maternal Health Committee, May 19; (3) Mental Health Committee, May 26; (4) Medical Care Insurance Committee, and its Relative Value Study Subcommittee, June 1; (5) Liaison Committee with Michigan Medical Schools, May 23; (6) Tuberculosis Control Committee, June 1; (7) Big Look Committee, June 5; (8) Committee to Study and Reappraise the Michigan Clinical Institute, meeting of June 9; (9) Michigan Clinical Institute Committee on Arrangements, meeting of July 7; (10) Arbitration Committee, meeting of April 8; (11) Wayne Councilor District Medical Care Insurance Committee, meeting of June 30; (12) Committee on National Defense, meeting of June 22; (13) Geriatrics Committee, meeting of June 28; (14) Vocational Rehabilitation Committee, meeting of June 30; (15) Committee on Awards, meeting of July 14; (16) Advisory Committee to the Executive Director, meeting of July 14; and (17) Big Look Committee, meeting of July 15.

In addition, the minutes of the June 30 meeting of the Michigan Cancer Coordinating Committee, to which MSMS sends representatives, was presented as information.

- Dates of Councilor Conferences in all eighteen Districts of the State were arranged. These meetings are being held, as in the past, prior to the Annual Session of the House of Delegates.
- Recommendations of the Insurance Commissioner, made at and after the two hearings on the Blue Shield rate increase request, were discussed; a special committee of The Council was appointed to delineate and coordinate a program to implement the Insurance Commissioner's recommended educational program.
- President-Elect K. H. Johnson, M.D., Lansing, presented a progress report on the new MSMS headquarters building.
- Speaker J. J. Lightbody, M.D., Detroit, offered various recommendations for improving presentation of material to Delegates and Alternate Delegates at the 1960 MSMS House of Delegates Session, including loose-leaf binders as well as identifying badges for Alternates.
- The 1961 County Secretaries-Public Relations Seminar is to be held in the new MSMS headquarters building in East Lansing; also the annual meeting of The Council will be held in East Lansing in January, 1961.
- Progress report on Michigan Medical Service was presented by President G. Thomas McKean, M.D., of Detroit.
- The reports of the three standing committees of The Council were presented by their chairmen: Oliver B. McGillicuddy, M.D., Lansing, for the Finance Committee; B. M. Harris, M.D., Ypsilanti, for the Publication Committee; Wm. M. LeFevre, M.D., Muskegon, for the County Societies Committee.
- Chairman McGillicuddy also projected estimated financial picture for 1961, as well as a financial recap covering the new MSMS headquarters building.
- President-Elect K. H. Johnson, M.D., referred to plans before Congress for social regimentation especially of the aged. He presented the following resolution, which was passed by The Council:

"WHEREAS, The Council of the MSMS is composed of physicians elected by democratic process to represent the practicing physicians of the component medical societies in each specific district, and

"WHEREAS, The Council of the MSMS received its direction from the House of Delegates of the MSMS—a body elected through democratic process to represent the practicing physicians of each county medical society and ultimately the practicing physicians of this state, and

"WHEREAS, The Council in its meeting of July 14-16, 1960, has taken cognizance of the rapidly growing advocacy for political control of the health needs of the people by those seeking public office; and having knowledge of the tendency on the part of the same to be unmindful of the disastrous results to the health care of the people and the deleterious impact on the quality of medical care; therefore be it

"RESOLVED: That The Council of the MSMS takes action this date to alert in every way possible the members of the profession in this state to these dangers; and be it further

"RESOLVED: That an all out effort be made to alert the citizens of this state to the dangers inherent in the political control of medicine by means of a program of public utterances, the written word, personal contact; and be it further

"RESOLVED: That every effort be made to present the positive reasons for the profession being allowed to proceed in the progressive manner already proven in the past and planned for the future; and be it further

"RESOLVED: That the action of The Council becomes a matter of public record, and that copies be sent to all leaders in the profession and that the implementation of this resolution go forward without delay."

(Continued on Page 1317)

Highlights of the MSMS Council

(Continued from Page 1316)

- The Council authorized the Legal Affairs Committee to inaugurate and carry on a general program of Public Relations in this crisis.
- JOURNAL allocations for the year 1961 were approved by The Council. In addition, The Council approved the recommendation of the Finance Committee to allocate from each member's dues 50 per cent of THE JOURNAL subscription fee ($3.00) in order to comply with postal regulations.
- The distribution list of the new MSMS publication "Medical Economic Currents" was presented and approved by The Council.
- The County Societies Committee's offer to cooperate with county medical societies in every way was approved by The Council.
- Progress report on the Beaumont Foundation was presented by Otto O. Beck, M.D., of Birmingham.
- Report of MSMS representatives to review University of Michigan Study of Medical-Hospital Economics was presented by H. F. Falls, M.D., Ann Arbor.
- Matters of mutual interest were presented by State Health Commissioner A. E. Heustis, M.D., of Lansing including (a) new members appointed to State Council of Health, (b) report on progress at nine (of the eleven) regional meetings of the the State Aging Commission, (c) the creation of a new division, on Hospital and Medical Facilities, in the Michigan Department of Health, (d) report on immunization, communicable disease, and on tuberculosis control.
- The Annual Report of The Council was reviewed and approved as amended, and was ordered presented to the House of Delegates.
- The annual meetings with distinguished guests, with the Michigan Hospital Association Board, the Michigan Health Council Board, and the Michigan Crippled Children Commission were held, and mutual problems and ambitions were discussed.
- The monthly report of the Public Relations Council included (a) filling Public Relations Field Secretary vacancy, (b) Annual Session Press Dinner scheduled for Detroit, September 21, (c) invitation to participate in Michigan State University Career Carnival, October 3-4, 1960, (d) report on literature distribution and on the status of the Public Relations' library, (e) report on the Mills Bill in the United States Congress, and (f) report on MAP.

MICHIGAN MEDICAL MEETINGS AND CLINIC DAYS

September 25-30	Michigan State Medical Society Annual Session	Detroit
September 27-29	Annual Meeting, Woman's Auxiliary to Michigan State Medical Society	Detroit
September 28-29	Annual Meeting, Medical Assistants to Michigan State Medical Society	Detroit
December 1-3	Western Surgical Association	Detroit
January 28-29, 1961	MSMS County Secretaries—Public Relations Seminar	East Lansing
March 8, 9, 10, 1961	Michigan Clinical Institute	Detroit

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University Survey Finds Aged Healthy and Well Cared For

Following are some statements excerpted from an address given by James W. Wiggins and Helmut Schoeck, of Emory University, Atlanta, Georgia, at the Fifth Congress of the International Association of Gerontology at San Francisco, August 11, 1960

This paper is a preliminary and partial report on a study of the non-institutionalized aging in the United States. The first objective of the study has been to describe accurately the "normal" aging population. It is commonly recognized that present knowledge of the aging in the United States is derived from studies of essentially "captive" aging persons, such as the hospitalized or the chronically dependent.

It is one thing for a physician or social worker to identify and treat the maladies of a patient or client, but it is a different thing for a social scientist to generalize from these unfortunates to a population group of some sixteen million. Such generalizations, often without intent, produce caricatures—distortions by exaggeration with grotesque effects.

Interviews were conducted with 1,492 persons sixty-five years of age or older.

Seen from our sample, the aging population of the United States enjoys a high level of health. Ninety per cent of all respondents said they were in either good or fair health. Two-thirds of our sample declared themselves in good health. Ten per cent said they were in poor health.

Two-thirds of our respondents had neither seen a doctor nor talked with one on the telephone, in regard to their health, during the four weeks preceding the interview.

When we asked the respondents: "Do you have any medical needs now that are not being taken care of?"—92 per cent said, "No."

This picture of a healthy and well-cared-for aging population in the United States is fully supported by the economic data on their medical care. Only 5 per cent of all respondents in our sample had spent over $100 for medical care for themselves or their spouses during the month preceding the interview.

When asked: "Suppose you had a large medical bill and had no medical insurance, how would you pay the bill?" Forty-two per cent of our respondents would use cash or a check to pay the bill, 11 per cent would mortgage their homes, and 15 per cent would use cash value of insurance or sell stocks and bonds. We should note that the question specifically inquired about the method of payment in *case there was no medical insurance.*

However, 64 per cent of our respondents did report insurance.

Our hypothesis was that modern life is not as complicated and frustrating for the aging as pictured in social science literature.

The data presented in this paper strongly support a re-examination of the conceptions of the aging in the United States. It may be seriously questioned whether increasing age is pathological *per se,* as is implied by the alarm with which it is viewed by many researchers, professional helpers, and policy makers.

The study shows that the aging, like others in our population are not characteristically dependent, inadequate, ill, or senile.

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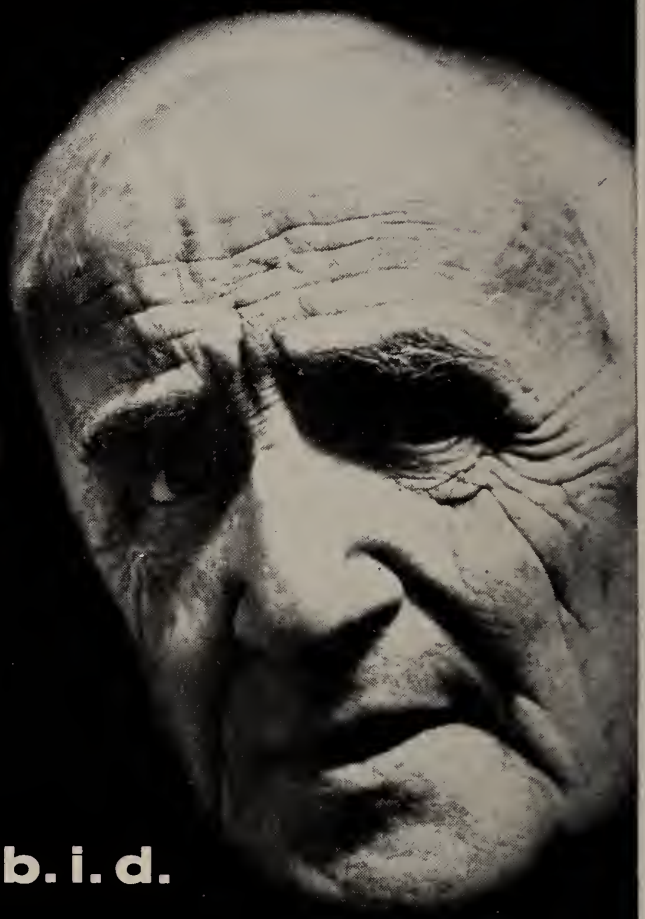

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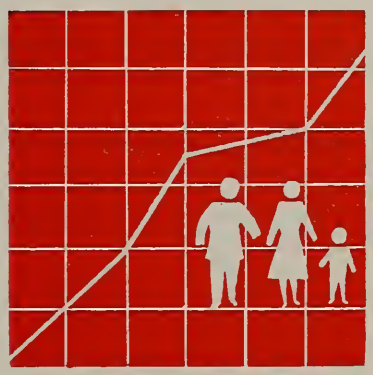

Many Federal Employees In State in Blue Plan

Preliminary estimates show that well over half of Michigan's 40,000 federal employees picked National Blue Cross-Blue Shield health coverage under the new federal health-coverage act for federal workers.

The federal employees had a choice of three other programs: commercial coverage through Aetna Insurance Company, local group-practice plans where available, and various employee-organization plans.

But with well over half picking the National Blue Cross-Blue Shield plans, Michigan doctors will be getting a good percentage of patients with this special coverage, which differs in several respects from the regular Michigan Blue Cross-Blue Shield program.

These federal employees will have a special type Identification Card which is entitled "Blue Cross-Blue Shield Health Benefits Plan for Federal Employees."

This is a national program and the benefits and schedules of fees are different from Michigan Blue Shield plan—and so are the rules and regulations. Because of this—and the fact that the government insisted the program be "experience-rated," Michigan Blue Shield is not underwriting any of the program. *But it is servicing it*—processing the claims and paying the benefits according to the special schedule. (It is reimbursed in total for these.)

Michigan doctors will be able to use the regular Blue Shield Doctor's Service Report in reporting services rendered these federal employees. Payments will be in accordance with the indemnity benefits set forth in the schedule called "National Blue Shield Schedule of Allowances." This schedule was sent each doctor together with a copy of the official brochures giving the benefits of this government-wide program.

Health Insurance Growth Reported in Michigan

The number of persons in Michigan with health insurance reached a new high of 6,357,000 at the end of 1959.

The Health Insurance Institute, New York City, reports its 14th annual survey of health insurance coverage in the U. S. revealed that nearly 128 million Americans were covered. This represents 72 per cent of the total civilian population. The survey is based on reports from insurance companies, Blue Cross-Blue Shield and other health care plans.

The number of persons in Michigan with hospital expense insurance increased by 27,000 during 1959 to reach the 6,357,000 total. The number of persons protected by regular medical expense insurance, which helps pay for doctor visits for non-surgical care, increased from 4,528,000 to 4,905,000.

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Length of Hospital Stay Increases from All-Time Low

The average length of time patients stayed in short term general hospitals in the United States jumped last year for the first time since World War II, the American Hospital Association has reported.

The length of stay in short-term general hospitals rose to 7.8 days in 1959 after an all-time low of 7.6 in 1958. The average length of stay had consistently declined since 1946 when it was 9.1 days.

At the same time, the number of admissions to all hospitals dropped, while the average number of persons hospitalized each day increased. The increased length of stay may have accounted for this discrepancy.

The average number of patients in all hospitals each day in 1959 was 1,363,217, compared with 1,322,938 in 1958. Admissions to all hospitals last year totaled 23,605,186, nearly 92,000 less than the record 23,697,157 in 1958, according to statistics which appeared in the August number of *The Journal of the American Hospital Association.*

New Booklet Reports Costs Of Nursing Home Facilities

A new federal government booklet cites costs from 36 studies in nursing homes, homes for the aged, boarding homes under proprietary, non-profit, and public auspices. The booklet, "Costs of Operating Nursing Homes and Related Facilities," is available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., for 20 cents.

A summary table highlighting the general range in costs among the different facilities shows that daily costs since 1957 vary from $3.38 in four Georgia nursing homes (having 100 beds and over) to $13.85 in a 42-bed nursing home unit of a New Jersey hospital providing rehabilitation and occupational therapy.

Costs of Keeping Up

A recent study by a professional management firm gives some new figures on the amount of money spent by doctors of medicine to keep up with new medical developments. The study shows that the average outlay by fields of practice range from $524 annually by pediatricians to $1,850 annually by plastic surgeons.

Preparation of the Patient for Medical and Surgical Procedures

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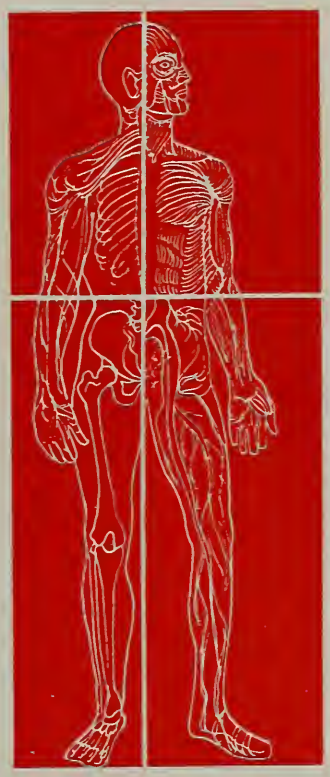

PATIENTS and potential patients look upon hospitals in many different ways. They think of them as havens of security—places where lives are saved and health restored, and as places of rest and quiet. On the other hand, they think of them with much anxiety and concern. Probably one or more of the following questions occupy a large part of the patient's thinking when he is about to undergo diagnosis, treatment or surgery.

He wonders: (1) What will be done to me? (2) Will it bring pain and discomfort? (3) Will the people who take care of me be kind to me? (4) How long will I have to stay? (5) Will I emerge multilated or disfigured? (6) Will I be told the truth? (7) What will it cost? Can I afford it? (8) Will it frighten me to death?

In spite of ever-growing knowledge in the detection and cure of illness, medicine has long been criticized. Much of the criticism has been focused on the cost of medical care, and while there is some justification for this, it seems safe to assume that many frustrations, disappointments, and anxieties have been hidden under this guise. Doubtless, it is also true that people simply expect more and better treatment on all sides. People have wanted to travel more comfortably, sleep more comfortably, eat more comfortably and luxuriously, and work more comfortably; these wishes appear always to be met. So, too, they want to have less inconvenience and discomfort from illness and they expect members of the medical profession to provide this.

In preparing the patient psychologically for what lies ahead, there seems little question about the need for telling him the truth, and telling it with as much clarity as possible in regard to all the questions listed. But more than telling the truth clearly is involved. There is also the matter of helping the patient discuss and digest the truth. This puts a psychologic and emotional strain upon both patient and physician, but is a strain that should be faced and borne by both at the appropriate time. For only frustration, tension, and ill will can occur on both sides if this philosophy is not adhered to. In other words, postponement or actual evasion of this principle gives no gain and does not contribute to the well-being of either physician or patient. However, having just made this sweeping general statement, I must now admit that there are a few exceptions to it. All patients do not want the truth about everything, and it can be debated whether in some cases it would be better not to tell the whole truth.

There are many patients who feel that if they are going to die they do not want to know; if they have cancer they should not be told. A few would certainly say they do not want to know if they have heart disease and some would say, "If there is a strong risk that I will not survive this operation do not tell me of it."

Why is this so? Because these possibilities introduce more morbid fantasies than the mind of the patient can deal with and still maintain any healthy sense of well-being.

May I say at this point that it is my impression that the number of people who can face and deal emotionally with the reality of serious illness and death has increased. I believe that it will continue to increase in number, but it is impossible for me to imagine a time in the future when all people can face death with equanimity.

There has been a change in the thinking among physicians over the years which has advocated more frankness and more forthright dealing with the facts of illness when confronting the patient. It was found that an enlightened patient was a more co-operative patient. As a result, the outcome of study and treatment was more satisfactory when the patient knew and understood the nature of his illness and what was required of him to achieve and maintain health. It was also found that knowledge on the part of the patient about his illness did not detract from his respect for his physician nor from the intelligent use of his physician's services. On the contrary, his respect and utilization of his physician increased. In fact, the physician has found that frankness about ignorance of a certain disease has not lowered his prestige either individually or collectively, and the public's support of research activities in these unknown areas is ample proof of this.

Why then is there still so much criticism of the physician by the public for lack of information, lack of explanation, needless worry, disappointment in results expressed by the statements:

- These doctors never tell you anything.
- My doctor has me worried sick for days.
- Why won't a doctor tell you the truth?
- I wish these doctors would make up their minds about what is the matter with me.
- I always worry so much about what is going to happen.
- I wish I knew what they are going to do to me.
- They kept me so long in the hospital without telling me anything.
- If the surgeon had told me what it was going to be like after the operation, I could have taken it better.

Possibly many physicians have the impression that they talk things over with their patients, but this list of complaints could be made much longer. One hears these complaints constantly so it must be that physicians are not adequately preparing patients for what happens in medical study, treatment, or surgical work. For instance, it may be that the physician does not want to take the time to explain, or he has not practiced the art of simple and clear explanation. He may not want to share the knowledge he feels gives him a position of advantage over his patient, or he may fear the patient will become too emotional in some way and become dependent and frightened and cry, protest, argue, refuse to co-operate, or beseech the physician to alter his intended procedure. In short, when the physician keeps the information to himself and the patient remains in ignorance, he may be easier to handle. Finally, the physician may fear the patient will ask questions he cannot answer, and the lack of knowledge revealed will cause the patient to lose respect and leave him.

Hence we see that there are emotional problems in both the patient and physician and any effort to bring about closer relations between them necessitates not only a clear understanding of the problems on both sides, but an honest effort to overcome them. Since the doctor is cast in the role of leader and teacher, it is he who will, in most instances, have to show what is meant.

Illustrative Cases

Case 1 (Costs).—A fifty-three-year-old business man suffered from abdominal symptoms. After a few days in the hospital, and following consultation with a surgeon, he was informed that he needed an abdominal operation. The surgeon was a man with whom he was already acquainted and when the decision for surgery was announced to him, the patient asked the surgeon what his charge would be. The surgeon waved his hand in a manner that was intended to

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ward off discussion of this problem and said, "Oh let's not worry about that. You are here to get well and we don't have to discuss that now." The patient persisted, however, and said, "But I do want to discuss it now. My business has not been good and I'm going to lose more time from it through this illness and operation. I am the kind that worries about my bills, and I don't want to have to go through this operation wondering what your bill will be and how it will affect my financial planning for the next six months. I want you and I want your skill and care, but I guess in the final analysis if I can't afford you, I will try to get someone I can afford."

The surgeon tried again to tell the patient he was making too big a thing of this and that he was sure the patient could afford his services. But the patient would not be put off. He said, "Look, we have known each other for years and we want to retain our good relations. There is no reason why an experienced man like you can't tell me what your charge will be for this operation. I don't want to be embarrassed or angry over a fee I can't afford and I feel sure you don't want to have me dissatisfied. Just sit down here and think a minute and tell me your fee and I'll have peace of mind in knowing at least one of the problems that lies ahead of me—a financial one." The surgeon named a fee of $450.00 and the patient was satisfied. It may be of interest to relate that the surgeon joked and twitted the patient for some time afterward because of this insistence in having the fee stated before the operation.

Few patients will be as insistent as this man was, but it is certain that many of them will have concern for the surgeon's fee if they do not know what it is before the operation.

Why would a surgeon be reluctant to name his fee for operation?

First, he may feel it is crass and indelicate to talk about a fee for his work when he is dealing with health and saving a life. He may think it makes his work commercial when he would like to think of it on a higher plane. But he certainly does plan to charge a fee and he will decide the fee when certain things become clearer in his mind. If the operation goes well, convalescence is fast and uneventful and the patient is satisfied, he will feel comfortable in naming his fee. If, on the other hand, the case becomes complicated and prolonged and takes more time than he thought, he may want to take this into account. And perhaps he should. Also, a physician or surgeon may feel that if the time of setting fees is delayed until later in the contact with the patient, the latter's financial condition will be better known and the need for consideration to the patient will become clearer. This is in line with a practice that has always prevailed in medicine and still prevails—a physician has his regular fee, a fee for those who need special consideration and reduction, and a fee for the occasional patient who wants and expects to pay a little more for his physician's services. However, it should be borne in mind that patients have their problems about fees and these problems are often of no small moment.

A suggestion for the surgeon might be that he say, "If you wish to know my charges, my secretary or I will tell you beforehand. But if you wish to leave it to the termination of my care of you, that is agreeable to me also." This gives the patient and surgeon an opportunity to deal with the subject and make each other comfortable about it. Cost is important among those things that enter into the working interaction of doctor and patient.

I find myself a little guilty in having chosen money as one of the first subjects to discuss in talking about the preparation of the patient for medical and surgical procedures. But I set out to describe the things which frighten, worry, or harass the patient in relation to his medical care, so the order seems unimportant. Moreover, all the things which disturb the patient are serious, human, and difficult to talk about.

Case 2 (Examination).—One evening I went down the elevator of a building and the elevator operator was crying. Knowing her quite well, I inquired as to why she was crying. She told me that she was to have a bronchoscopic examination the following day. I tried to be reassuring and said that, while it was true that the position was a little uncomfortable, sedation was given and I had never heard anyone dwell particularly on the pain of the procedure. To this she replied, "I'm not afraid of the pain or discomfort. I could stand lots of that. My fear is very different. I'm afraid that when I get there I'll break down, go to pieces, and act like a child, instead of a thirty-five-year-old woman. The idea has me terrified beyond measure."

All I had time to say was that grown-ups must not have been very patient with her as a child, when she was afraid of dental or medical procedures. But her remarks did give a clue as to what was needed. She had suffered insecurity as a child in a similar situation and had been treated with shame and disapproval. She needed, as part of her preparation for the ordeal, to be helped to remember these earlier life incidents with her parents and the professional person involved, and to abreact some of her emotion in connection with the ordeal. This would make her better able to see the bronchoscopic examination for what it was rather than a childhood kind of nightmare. It would not have needed the services of a psychiatrist to help her either. It would merely mean that her physician, if willing, could have asked her to discuss her feelings about surgical procedures and to speak of any fear reactions she

had picked up during childhood. He could have encouraged her to ventilate her feelings and put her in better emotional condition for the procedure in question.

The reason this is not done more often is because (1) the average physician or surgeon doesn't like tears and the accompanying emotional and physiological reaction; (2) he isn't sure how long the emotional reaction should last to be beneficial; (3) he is afraid that if he makes the patient sad before his operation, the patient is pretty sure to be even more so during and after the operation; (4) he likes the patient who approaches an operation calmly and cheerfully, since it implies trust and confidence in him. Jocularity may be good for some patients in some situations but it is not a good blanket rule for all.

Case 3 (Medical Study).—A thirty-six-year-old housewife with two children told the following story: "In the course of a routine check-up, my doctor found I had a fever of a little less than 100. He said I should come into the hospital to have it studied. I got help to take care of the children and came in. I had tests day after day, x-rays, blood tests, blood counts, urine examinations, et cetera. Each day it was something different. Each day I would ask the doctor what he had found but he wouldn't tell me. I hate to be treated like a child or a simpleton. I never did find out. I paid for all the tests and I hope he learned something. I didn't. I just lay there and fretted and worried about the kids. I guess the fever went away or he decided I just ran a fever. Anyway, nothing I know came of it. I wish he had talked to me and told me what it was all about. He never gave me any medicine or any advice."

Better preparation and better handling could have kept down this patient's tension and made her a better friend of her physician, in particular, and the medical profession, in general. This approach of "I am the physician. You follow orders and pay the bills and I tell you nothing" is not conducive to making calm, co-operative patients. The physician could have said, "Fever is usually a sign of some disease process and could mean something serious. You should have tests done that will rule out the possibility of certain conditions. It will take a few days, but it is worth your time and money to do this." He could have informed her of the results of each day's tests and when it was over he could have said, "We do not always find the cause of every fever. Yours has subsided and the tests did not reveal any disease. You can at least be assured that you do not have any serious condition." This would have made her feel that her time and money had been spent for some profitable study and that her intelligence had been respected, rather than have her continue to feel that she was an unfortunate victim of the physician's ignorance.

Case 4 (Cancer).—Several years ago I had occasion to see a beautiful and sensitive woman in her late forties, who developed a cancer of the breast. Before the operation she was asked if she was prepared to lose the breast if the tumor proved malignant. She indicated that she was, but she was unaware that a radical operation would be performed and that so much tissue in the proximity of the breast would be involved. Several months after the operation she said, "I don't like the way I look and I don't like myself. If I had been given the decision, I would have chosen the less radical operation and taken the risk attendant upon it. I don't want to live a long time. I'd rather live happier and be satisfied with myself than to live a long time."

Many questions arise here. How many surgeons would want to describe to a patient before operation the problems attendant upon a radical mastectomy. If he did describe them and the patient refused surgery, he might feel the patient's decision was not a reliable one and that later the patient would criticize him. What weight shall the wishes of the family have in a decision like this? What are the rights of a patient to decide such things? A patient cannot decide upon his death by euthanasia and have it occur. Can he decide to take a course that might lead to an earlier death? Shall a surgeon play God and decide he *must* take the safer course? Regardless of the various answers to these questions, the patient remains dissatisfied and the physician asks whether he can be versatile enough and discerning enough to give all the needed preparation.

Case 5 (Pain).—A man in his early fifties had had several operations for osteomyelitis accompanied by considerable pain. He recalls one hospital and one surgeon with enthusiastic approval saying, "The surgeon said he felt I should have sedation for my pain and all I had to do was ask and I would get it promptly. His nurse repeated this statement to me and I learned that he meant it. Now you know I'm very conservative about sedation; in fact, I'm afraid of addiction and I didn't ask for much, but it was a real help to know they were concerned about me and would have given it to me if and when I wanted it. Everywhere else I went there was nothing said about it and when I asked, the nurse put on a worried look and said, 'Yes, I guess we can give you something if you need it.' But she always made me feel like a child or a criminal or a dope addict in the making, so I don't think it did me much good when I got it. They didn't care whether I was comfortable and I wasn't. In the hospital I just told you about, they wanted me to be comfortable and I was."

Back now to a surgical situation. Heart surgery is becoming more commonplace these days everywhere, but it is still high-risk surgery. Moreover, there is always that greater danger that death may be imminent because the very organ being worked upon is such an important organ to life. And when life is threatened, the effect is very fear-producing, so fear-producing as to precipitate psychosis in occasional cases. Certainly the least the patient for cardiac surgery should expect is an opportunity to discuss his life as a cardiac invalid and to express himself freely about his misgivings. And, of course, he must be given a chance to ask questions and be given answers.

Contrary to popular opinion there is probably no such phenomenon as "talking too much" on the part of a patient about an impending serious medical or surgical procedure, so far as the patient himself goes. All emotion is better ventilated than held within.

But, there can be such a thing as unjudicious remarks by family friends, nurses, and doctors as the patient talks. Hence calm listening, factual answers, reasonable reassurance, and sensible optimism are very helpful. Many people, including physicians, often discourage talking and disapprove of talking about serious diseases and serious medical and surgical procedures, because they do not know how to stand by steadfastly in the face of fear, frustration, sorrow, anger, worry, grief, or depression. This very capability is most valuable. Its value is illustrated by the following patient.

Case 6 (Surgery).—A woman described her hospitalization for her first baby (without preparation, of course) as follows: "I was scared when I went to the hospital for my first baby. I admit it. No one had told me anything. When the pains came I screamed and asked for the doctor, but the nurses had instructions not to call him and they didn't care to think of my need for him. I made them uncomfortable, I know, and they paid me back. They threw my food at me and pulled my hair when they combed it. With each pain I thought I'd burst, but nobody said one reassuring thing. In fact, they laughed and said, 'Don't you know that millions of babies have been born before and you shouldn't be making such a fuss!' They didn't know one thing to do in the face of fear and pain. The only person in that whole hospital who was decent to me was the minister. I complained to him too, but when he left he had the kindness to say, 'I'm sorry you feel so bad. I'll come and see you tomorrow.' He wasn't afraid of me. No one need have been afraid of me. I was the one who was afraid and the stupid fools didn't see it. I just needed someone to tell me I'd come through all right and ask me to be brave. It's a shame people around hospitals know so little about people!"

Summary

A discussion of preparation leads one quickly into management of the patient during medical and surgical procedure. But the two procedures complement and supplement each other. The doctor can prepare and then he must also explain as he goes. He must share his knowledge with the patient to get co-operation, peace of mind, and a constructive end-result. A doctor should not assume that the size and the dramatic impact of the modern hospital is going to keep the patient's mind off mundane questions of time lost, fear of incapacity, personal recognition, future implications of his illness—not to mention the problem of death.

The general trend is toward a greater frankness between physician and patient, with a few exceptions in serious conditions, which are discussed in the body of this paper.

Medical School Costs

The average cost of a four-year medical school education is $11,644, or $2,911 per year, says the Association of American Medical Colleges.

A major source of this money is the student's family and relatives, including his wife and in-laws. These and his own earning power provide some 82 per cent of all financial resources available to the future doctor. The rest comes from the school, local banks, federal and state governments.

While one-third of all students studied by the AAMC receive $6000 a year or more from their families, 16 per cent receive no money at all.

One of the reasons medical students can rely on subsidies from relatives is that they come from wealthier homes, suggests the AAMC. Forty-three per cent of all medical students' families have incomes over $10,000—compared to a national average of only 11 per cent. On the other hand, only 14 per cent of students' families were in the under-$5,000 bracket, compared to 40 per cent of the United States.

Factors Associatedwith the Psychiatric Referral Techniques of a Group of Physicians

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PSYCHIATRIC REFERRALS present an extremely difficult and important clinical challenge. The proper selection of the patient who should be referred, the timing of the referral, and the all-important preparation of the patient for the psychiatric consultation require a combination of shrewd judgment, knowledge, and tact to such a degree that many physicians feel that these are the most difficult referrals they are called on to make. And, because there are indeed so many difficulties inherent in making such referrals, it is not surprising that the delicate machinery of this process breaks down frequently enough to constitute a pressing clinical problem. It will be the purpose of the authors in this paper to report a systematic investigation of why some physicians seem more adept at this process of making psychiatric referrals than others.

The literature related to this problem is quite small, perhaps intensifying the widely held opinion of physicians that their psychiatric colleagues are isolated from them. Chodoff and Barker[1,2] discuss the psychology of the psychiatric referral; Berlin, Bartemeier,[3,6,7] and others[4,5,8] explain how to prevent the referral from failing. Most of these papers are designed to aid physicians in making better referrals. Those authors who do discuss the causes of the physicians' problems in making psychiatric referrals seem to agree that either defects in psychiatric education or "irrational" attitudes on the part of the referring physician are the major factors to consider, various authors seeming to emphasize one rather than the other.[9-13] However, there has been a general lack of systematic investigation of factors related to optimal or suboptimal referral techniques in a large group of physicians.

From the Letterman Army Hospital, San Francisco, California.

Doctor Boesky is now located in Detroit, Michigan. This material has been reviewed by the Office of the Surgeon General, Department of the Army, and there is no objection to its presentation and/or publication.

Statement of the Problem and Hypotheses

The present study was undertaken to systematically investigate, by means of a questionnaire, the relationship between excellence of psychiatric referral and various other factors in a group of referring physicians. It was intended to explore a variety of variables which might be related to referral skill. No hypotheses were made regarding many of these variables, but based upon the literature and the clinical experience of the authors, specific hypotheses were formulated about certain key variables. These were:

1. Physicians with good training in the field of psychiatry will show more skill in making psychiatric referrals than physicians with poor training.

2. Physicians with a good general knowledge of psychiatry will show more skill in making psychiatric referrals than physicians with more limited knowledge.

3. Physicians with generally favorable attitudes toward psychiatry, psychotherapy, and psychiatric patients will make better psychiatric referrals than physicians with generally unfavorable attitudes.

Method

Subjects.—Subjects for this study consisted of eighty-two physicians working at Letterman Army Hospital* and in dispensaries of Army installations in the San Francisco area. This group included fourteen interns, forty-five residents representing most medical and surgical specialties, eleven hospital senior staff physicians, and twelve general practitioners who worked in dispensaries. In addition, 11 psychiatric residents were used to serve solely as a comparison group. The total of ninety-three subjects represented a return of over 60 per cent, questionnaires having been initially distributed to approximately 150 physicians.

*Letterman Army Hospital is a large Army teaching hospital. At the time this project was in progress (1958), the junior medical staff consisted of 128 interns and residents who were graduates of fifty-six different medical schools.

Procedure.—Discussions were held within various departments of Letterman Army Hospital concerning the purpose of the study. Within a week following the discussion, a questionnaire was placed in the mail box of each physician concerned. An attached letter explained that the questionnaire was to be completed anonymously, and returned to the mail box of one of the authors.

*The Questionnaire:*** The questionnaire consisted of eighty-nine items, some of which had many parts. Questions on this instrument were almost exclusively short, closed-end items, and could be grouped into seven categories.

1. Identifying data
2. Information about medical school training in psychiatry
3. Knowledge of the general field of psychiatry
4. Attitudes toward psychiatrists, psychotherapy and psychiatric patients
5. Procedures followed in the process of making psychiatric referrals
6. The number of patients referred
7. Miscellaneous items

Fourteen questions (some with many parts) pertaining to referral procedures comprised one of the criterion measures, against which other data were compared. These questions inquired about the indications for referral, the type of patient referred, and the manner in which the psychiatric referral process was typically handled. This portion of the questionnaire was discussed with members of the senior staff of the Letterman Department of Neuropsychiatry, who indicated what they would consider to be ideal answers. Based upon their opinion, these questions were scored and considered as a *referral scale*, which was then used as a measure of the skill of physicians in making psychiatric referrals.

Two items pertained to the number of patients referred, which comprised another criterion measure.

Twenty-eight items were taken from specimen examinations in Freshman, Junior, and Senior Psychiatry given at the University of Michigan Medical School during approximately the past five years. These questions comprised the measure of general knowledge of psychiatry.

Twenty-seven questions referred to attitudes toward psychiatry, psychotherapy, and psychiatric patients. These questions were scored as either favorable or unfavorable by inspection, and the scores were weighted on the basis of statistical infrequency. Thus, an unfavorable response that was given very seldom was scored minus 4, (for example, "Most physicians could handle a psychiatrist's job with a little additional training"), while a statistically-frequent favorable response was scored plus 1, and so on. The algebraic sum of these scores was used as a measure of the *favorability* of attitudes. In addition, a measure of *extremeness* of attitude was derived, by noting the size of the obtained score, regardless of direction, based on the original weightings.

Three questions containing ten parts pertained to the amount of instruction in psychiatry received in medical school, and the nature of such instruction. These items were scored and used as the measure of training. An additional question asked the subjects to rate how well they felt they were trained to make psychiatric referrals.

TABLE I. RESULTS BEARING ON THE HYPOTHESES

Variables Compared	Chi-Square	Significance
Training and referral scale	12.9	.001*
Knowledge and referral scale	3.1	.05*
Favorable attitudes and referral scale	.1	N.S.*
Extreme attitudes and referral scale	8.6	.01**

*One-Tailed tests
**Two-Tailed tests

Results.—Results bearing on the specific hypotheses stated above are summarized in Table I. From chi-square analysis of the findings, two of the three variables hypothesized as relating to referral techniques seem to be so related.

The measure of training was very discriminating. Physicians with good training tended to make good referrals, and vice versa, this finding being quite reliable. There was also a significant relationship between general knowledge of psychiatry and referral skill, with knowledge also being significantly related to training (Table III).

The favorability of attitudes was not at all related to the referral skill of the physicians. However, extremeness of attitudes was significantly related. Splitting the subjects roughly in half, physicians in the group whose total attitudes scores were furthest from zero, either positively or negatively, tended to make poorer referrals than the more moderate group. This measure was not correlated with training, but interacted with it. Thus, if a physician had good training he would almost always have a good referral score, *unless* he showed extreme attitudes; while a physician who had poor training, yet had a good referral scale

**Copies of the questionnaire may be obtained by writing to either author.

score, almost always showed moderate attitudes. By relating training to referral skill, then applying the extremeness of attitude measure to the "misses," an estimate of "high" or "low" referral skill was correctly made in seventy-seven out of the eighty-two subjects.

TABLE II. PSYCHIATRIC TRAINING AND PROFESSIONAL LEVEL

	Average Training Scale Score*
Interns (N-14)	20.0
Residents (N-45)	17.3
Senior staff (N-11)	11.6

*T scale distribution: 3 to 24; Median: 18

Examining the three variables of training, knowledge, and attitudes, with respect to the number of patients referred, none of these variables showed a significant relationship (Table III).

The relationships among some other variables and the two criterion measures were also investigated through chi-square tests. Various interrelationships were examined as well. These results are summarized in Table III. The physicians were divided into three levels (staff, residents, and interns) and three "departments" (medicine, which included all clinical, nonsurgical specialists; surgery; and general practice), and comparisons made among these groups. The interns had higher referral scale scores than did the residents, who in turn had higher scores than the staff physicians. This result seems related to the findings regarding training, inasmuch as the best training was reported by the younger people—interns and then residents (Table II). Interns also referred more people than residents, and staff physicians referred very few. Concerning the departments, medicine tended to refer many patients, while surgery and the dispensary physicians referred few. While the referral scale scores of the three departments were not significantly different over all, department of medicine personnel showed significantly more skill in making referrals than did the surgeons.

Doctors who reported receiving good training in medical school specifically with regard to making psychiatric referrals had better referral scale scores than those who said their training in this respect was poor. The doctor's estimate of how well he was trained in medical school to make psychiatric referrals is related in a highly reliable manner to his actual score on the psychiatric training scale. Those who reported receiving good training in making psychiatric referrals had better psychiatric training than physicians who said their psychiatric training was fair. Similarly, those who said such training was poor had lower scores on the training scale than either of the other two groups. Only one doctor out of fourteen in the "poor" group had a training scale score above the median.

TABLE III. OTHER VARIABLES

Variables Compared	Chi-Square	Significance
Number referred and training	0.8	N.S.**
Number referred and knowledge	3.4	N.S.**
Number referred and favorable attitudes	1.4	N.S.**
Number referred and extreme attitudes	0.1	N.S.**
Age and referral scale	2.7	N.S.**
Age and number referred	1.9	N.S.**
Age and extreme attitudes	2.5	N.S.**
Training and knowledge	6.0	.01*
Estimate of referral training and training	30.1	.001*
Estimate of referral training and referral scale	7.1	.01*
Professional level and referral scale	6.9*	.05**
Professional level and number referred	0.8*	N.S.**
Departments and referred scale	4.9*	N.S.**
Departments and number referred	6.5*	.05**
Referral scale and physician least important	3.5	.05*
Attitude toward professors and training	5.3	.05**
Attitude toward professors and favorable attitudes	3.4	N.S.**
Extreme attitude and acquaintance with people in psychotherapy	5.5	.02**

*One-Tailed test
**Two-Tailed test
†2 Deg. freedom

One of the questionnaire items asked the subjects to rate who was relatively more important for the successful outcome of psychiatric referrals, the patient, the psychiatrist, or the referring doctor. Physicians who rated themselves as least important in this process had lower referral scores than other physicians.

Physicians with higher training scores showed significantly more favorable attitudes toward their psychiatric professors at medical school than did those whose training was poor.

Physicians with extreme attitudes were less likely to know someone who had received extensive psychotherapy than were physicians with more moderate attitudes. Physicians holding extreme attitudes also tended to be older.† This finding did not reach statistical significance, but age was very homogeneous in the sample studied, which is a statistically limiting factor. (Age was not significantly related to any other variable in fact.) All the above findings are briefly summarized in Table III.

†This finding appears to be in concordance with that reported by Korkes[14] in a survey of attitudes toward psychiatry of 405 New Jersey Physicians.

Discussion

An assumption inherent in the present study is that the physicians' reports about their referral behavior are, in fact, representative of their actual behavior. To the extent that this is not true, of course, any interpretation of the obtained results would be subject to doubt. This problem arises in any study of this type; however, for discussion purposes it will be assumed that the criterion measures are valid.

In assessing the mass of obtained data, certain key findings stand out:

1. *Training.*—The data indicate that the physician's psychiatric training in medical school has a far-reaching impact on his subsequent performance, with regard to making psychiatric referrals. This is true whether an external, "objective" measure of training or the physician's own impression of his training is used. Hence, the first hypothesis is clearly confirmed. Training, in fact, seemed to be the variable which was most strongly and clearly related to referral techniques, of all the variables investigated. This is borne out by the data pertaining to general psychiatric knowledge. These data confirm the second hypothesis, and indicate that general knowledge is related to referral skill. However, general knowledge is also obviously related to training, and may very well be a direct function of such training, although undoubtedly other factors, such as interest and intelligence, may be operating here. The importance of training is even more clearly demonstrated when one considers that it not only seems to predict referral skill better than attitudes, but that it also seems to be the factor responsible for experience being negatively related to referral skill.

The above findings are in a sense quite encouraging. The professionally older people showed less referral skill, as well as poorer training. This suggests that changing trends in psychiatric training in medical school are already being reflected in generally increased skill in the referral process, and will increase in potency in the future. To a certain extent then, the problem of ineffective psychiatric referrals may already be on the way toward being solved. A corollary is that any specific improvement in such medical school training will pay dividends in terms of later inter-professional relationships.

2. *Attitudes.*—The other major factor postulated in the literature as having an important relationship to referral techniques is the physician's attitudes toward psychiatry and psychiatrists. On this point, present findings are somewhat complex. The third hypothesis was not confirmed; positive attitudes not being correlated with skillful referrals. Nor did doctors with positive attitudes refer significantly more patients than doctors with negative attitudes. Thus, statements in the literature that referral techniques are based largely on attitudes and feelings toward psychiatry, either conscious or unconscious, seem to be oversimplifications.

However, by re-classifying the subjects into those with extreme *versus* moderate opinions, meaningful differences were obtained. Doctors with more moderate attitudes made better referrals, reported having better qualified and better adjusted psychiatry professors, and tended to know more people who actually had had some psychotherapy.

The design of this study precludes precise evaluation of which is cause and which is effect in some of the above relationships. As to the meaning of the relation between extremeness of attitude and referral skill, one possibility is that the finding of extreme attitudes pertains to broad personality characteristics in some physicians. Or perhaps physicians who are less skillful in making psychiatric referrals diminish their own awareness of discomfort in such a situation by adopting extreme attitudes toward psychiatry; then attitudes would be more dependent on referral skill and referral skill would not be predominantly dependent on attitudes. (The finding that the more skillful physicians considered themselves more important with respect to the success of the referral seems to support this point of view.)

Probably both of these factors and others are operative, but the most significant contribution to these problems made by the present data is this: with respect to proficiency in making psychiatric referrals, training seems to be a more potent factor than attitudes. The unusually large number of medical schools represented by the subjects in the study would seem to make this finding even more meaningful.

The frequency of some of the attitudes of the group under study was in some cases unexpected and seem of some interest. In terms of generally unfavorable attitudes: 85 per cent felt that "psychiatrists tend to be too isolated from other physicians;" 55 per cent felt that "many psychiatrists think too much along psychological lines and probably overlook a fair amount of organic pathology;" 38 per cent felt that "many intelligent laymen could get as good results with neuroses as psychiatrists do."

In terms of generally favorable attitudes: 90 per

cent felt that "there are not enough psychiatrists available to treat all the people who legitimately need treatment" and "the psychiatrist performs a function about as valuable as that of other physicians;" 80 per cent believe that "some of my personal acquaintances could use some psychotherapy."

Physicians generally felt they had more difficulty in overcoming patients' resistance to the psychiatric referral than with any other aspect of the referral process. The above views are suggestive of areas of acceptance, as well as some areas where psychiatry could work to improve professional relationships.

3. *Self-appraisal.*—The physicians' ability to rate their own psychiatric abilities and training experience was quite encouraging. Those who felt their training in the referral process was poor actually made poor referrals and had poorer training, in general; those who felt they were important in the referral process made good referrals, and many physicians made spontaneous comments about their training or experience which were borne out by scoring of the various scales. These findings are also suggestive of the possibility of further improving interprofessional relationships in the future.

4. *The Psychiatrist's Variable.*—One variable which is doubtless associated with referral techniques was not investigated in the present study. It seems quite likely that the level of psychiatry being practiced at a specific installation and the maturity of the psychiatric staff will be reflected in the kinds of referrals made to that staff. An effort was made to approach this, in the present study, by comparing referral scale scores of doctors who reported being generally satisfied with the psychiatric service, versus those who were less satisfied. No differences were found. However, to more adequately pursue this question, studies should be made in several installations, with a more detailed investigation of the operation of the psychiatric staff.

Summary

An investigation of factors associated with good *versus* poor psychiatric referral techniques in a group of physicians was conducted by means of a questionnaire. The questionnaire was given to 150 physicians at Letterman Army Hospital and nearby Army installations; ninety-three replies were received. In addition to a measure of referral skill, the questionnaire afforded measures of psychiatric training, general psychiatric knowledge, attitudes, and other specific information. It was found that:

1. The degree and kind of training in psychiatry in medical school is strongly related to referral skill.

2. General knowledge of psychiatry is related to referral skill.

3. The favorableness of attitudes toward psychiatry is not related to referral skill, but doctors holding extreme attitudes, either positive or negative, make poorer referrals than doctors who hold more moderate views.

4. Professionally, younger physicians make better referrals than their senior colleagues, probably as a result of their better training.

5. Physicians showed generally good ability to evaluate their training, and could also rate their abilities, to a certain extent.

Some implications of the above findings for psychiatry were discussed. Other findings were briefly described.

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Somatic Equivalents of Depressions

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ALL CASES of depressions share in common the tendency to self-punishment which in the more extreme cases may lead to suicide. The purpose of this paper is to explain that, in some instances, the tendency to self-punishment is expressed as equivalents of the more purely mental and physical phenomena typical of the disorder. The mental symptoms of the usual sort may be so minimal that the general physician, or surgeon, concentrating on the somatic complaint may overlook the depressive features entirely, much to his own embarrassment and the patient's detriment. Whatever your belief concerning the etiology of depressions, the predominant psychologic symptoms involve aggression turned on one's self, manifest by some form of self-punishment and, in addition, this aggression is also used to make persons in the environment suffer to some degree.

If one recalls briefly that all living matter is in a continual state of living and dying, usually referred to as anabolism and catabolism, it is not remarkable that these same tendencies can be discovered in the mental and emotional strivings of man. So long as the anabolic processes just slightly exceed the catabolic ones and by predetermined methods of growth, we may be said to be alive, growing, and developing according to nature's laws. The psychologic equivalent is the need to create, to love, and procreate. If the growth processes deviate from the established patterns of control, we have a cancer which, in one way of viewing, is a revolution of a certain group of cells. Distortions, or deviations, in the psychologic components produce some forms of mental illness.

Most of us are now at the age in which, for the most part, the catabolic processes are gaining on us and little by little they use up our reserves, make inroads on our teeth, turn our hair and then take it (but leave it on chin), and in innumerable ways remind us of the inexorable processes of nature.

In the mental functioning, we have the counterparts of these drives in the aggressive, destructive, or death functions. In depression, the aggressive drives are turned on oneself with a goal of self-destruction in whole, or in part.

Irrespective of your beliefs as to the cause of depression, the symptoms are a matter of general agreement, and self-destructive trends are at the heart of all of them. Certain patients, apparently as a defense against development of a typical depression and the suicidal preoccupations that go with it, select (unconsciously, of course), some organ system for destruction—a partial suicide. The reasons one patient chooses a full-blown depression with suicide, and another develops one of the equivalents are not fully known but are found principally in the developmental history of the patient. We do know that there are definite chemical changes that accompany any kind of stress, and it is not surprising to find that every severe depression has somatic components manifest by changes in physiologic and chemical functions.

In certain persons, complaints of defects in function of some of the body systems are the principal manifestations of the depression, while others use external situations as the equivalent. A few types are presented as examples.

The mouth is one of the most frequent sites of expression of depressive equivalents. The complaint of trouble with the teeth is one of the most often encountered. Patients complain of pain but more often a general feeling of discomfort, a bad taste in the mouth, peculiar sensations in the mouth, and a variety of other rather poorly specified and general symptoms, but all obviously part of general discomfort and suffering. Many patients lose their teeth at this juncture. If the first dentist they consult finds the teeth healthy and suspects the pathology is psychiatric, or owing to some other general disease, and refuses care, the patients will inevitably travel from one dental office to another. This continues until the patient

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succeeds in finding a dentist who is either "bamboozled" by the patient's complaints or overcome by his own desire to make the patient comfortable; or the patient finds a dentist who, in turn, finds an acute pecuniary condition of the roots and gums and removes the patient's teeth. Nature has a way of compensating, however. The dentist is usually punished by the patient because the prosthesis "never fits," does not feel right, and the symptoms persist. Either the patient heckles the dentist by repeated complaints and recriminations against him, or goes to a variety of his colleagues and gossips among friends about the dentist's ineptitude.

By manipulating the situation, the patient has accomplished two things in discharging his hostility onto a body organ such as the teeth. He has partially destroyed himself and has vented his hostile urges upon the dentist. The relief gained by these procedures may for a time prevent further deepening of the depression.

Symptoms referable to the abdominal area, particularly some parts of the gastrointestinal or genitourinary system, are also common depressive equivalents. Among men, the organs most commonly sacrificed in these "partial" suicides are the gall bladder, the appendix, and the prostate. In women, the uterus, tubes, and ovaries are the commonly-sacrificed organs at the first operation, with the appendix and gall bladder held in reserve for the second one, unless the patient has gone to the "clean sweep" type of gynecologist who believes, "Now that I'm in here I might as well clean house."

Eventually, however, the patient runs out of expendable parts and it will be necessary to recognize the illness as psychiatric.

Depending on the detailed psychologic makeup of the patient, surgical manipulation may produce temporary alleviation of the symptoms, but never produces a lasting cure of the depression; in many instances the patient's complaints and recriminations will make the surgeon rue the day the patient walked in his door.

In patients of this sort the signs of being "blue," depressed, and melancholic are not present in the intensity common to most depressed patients. In some cases, the history will elicit complaints of loss of interest, loss of energy as compared to their usual life pattern, and the sleep disturbance characteristic of depression. The physician should not interpret the loss of energy as due to the presumed organ pathology of which the patient complains. The detection that the patient is depressed is difficult and comes from an ear tuned to the persistent, masochistic, and destructive quality of the symptoms. The patients make themselves and those in their surroundings miserable by a variety of clever and subtle ways, and this is often the important clue that one deals with a depression and not with predominantly somatic disease, or an ordinary organ neurosis.

In some patients with depressive equivalents, the organs selected for discharge of the self-destructive drives are already diseased. Phrased differently, the aggression is expressed on existing pathology. During depressed episodes, organs under control of the autonomic nervous system already burdened by hypertension, coronary defects, ulcers (in large or small bowel or stomach), or other pathology, may be the recipients of the aggression and hostility. Some physicians think the amount of depression and self-destructive urge present in a case determines the final outcome of coronary disease, hypertension, or ulcerative colitis. Other physicians believe that important causes of somatic disorders are psychogenic disturbances, but this is not the forum to debate that issue.

Some patients who are overweight from stuffing themselves, when persuaded or otherwise bedeviled into going on a diet and losing weight, may become depressed. That patients may use food as a tranquilizer is well known, and food may in some instances protect them from a depression in exactly the way that a manic episode may protect a patient from depression. A prominent writer states that obese people have a higher death rate for all causes of death except suicide, but the author does not give the source for the statement.

In one case seen in consultation, the patient suffered from severe and persistent psoriasis which had not responded to many forms of treatment. However, the patient developed a serious depression, and with the development of the serious depression the psoriasis cleared up in a manner that was almost unbelievable in terms of the clearing of the skin and its resumption of an almost entirely normal appearance. As the patient was treated for the depression, and the depressive symptoms disappeared the psoriasis slowly reappeared and resumed its previous state. A recurrence of the depression some years later produced the same cycle. While one can speculate about the psychologic explanation of such a phenomenon, the chemical and physiologic ways in which the body produces the change is not clear at all.

In other patients, the depressive equivalent is expressed by defects in business or personal judgment; these defects are to be distinguished from judgment

defects owing to organic disease of the brain. Symptoms of this type are sometimes very difficult to detect until substantial damage has been done to the family's financial state. A typical example is a housewife who, having lived in a home, raised her children, and established her friends in a neighborhood, decides that the family home is no longer suitable. This may be expressed as a desire to move into something "more modern," or "smaller," or "easier to maintain," or some other rationalization which at first glance seems reasonable enough, but on detailed examination, is obviously not the result of clear thinking. If such a move would cure the depression, it would be an economical way to treat such an illness. Unfortunately, no sooner is the move made than the patient begins to berate herself, the spouse, and anyone else who acquiesced to her decision for allowing her to make this great mistake. Life now becomes a continual preoccupation with the need to move back at whatever financial loss, or if this proves impossible, a continual rumination ascribing all of life's difficulty to this change. Men sometimes change jobs from a well-established position or company to a new one. On close examination, the change is obviously a self-destructive move and not one that has a reasonable chance of being either prestigeful or financially rewarding for the patient. In our restless population, it is not uncommon for people to change houses or jobs, so it is usually difficult or impossible for the family to detect the pathologic nature of such changes until the change has been made and the individual begins to reproach others for not saving him from their error. The self-reproach and the manipulation of family and friends to make them miserable provide the clue.

There are a few cases in the literature, and one of my own not reported, in which psychopathology in a member of the family seemed to prevent depressive illness so long as the patient could be aggressive to the other member of the family. In my own case, the first patient treated was a girl with schizophrenia. Aggression of the mother was an important cause. With extensive treatment, the girl developed a good remission of her symptoms, and as her symptoms improved, her mother developed a typical depression. The mother remained depressed for about three and one-half years in spite of energetic and, we thought, skillful attempts to treat her. At this time the daughter who had subsequently finished school and married began to have trouble in her marriage. As the daughter's marital situation became stressful, the daughter's schizophrenia recurred, and as the symptoms became progressively more schizophrenic, the mother's depression progressively cleared up. Fortunately, or unfortunately, depending on which way your interest went, the girl was again treated, again had an almost complete social remission, and the mother became depressed and has remained so since. The girl has remained well.

A further extension of expression of self-destructive trends on other people is demonstrated by the person who kills a child or spouse and then makes a suicidal attempt. If not successful, the attempted murder usually relieves the tension momentarily and no further suicide attempt is made.

The fact that aggression and hostility turned inward can find expression in symptoms referable to certain body organs suggests that these self-destructive trends (whether of genetic, chemical, or psychologic origin) may also play an important role in the development of serious, fatal pathology of the cardiovascular or gastrointestinal symptoms. Careful work by internists and psychiatrists, chemists and physiologists on the same patient is required to prove this. We also need more research on the social equivalents of depression.

At the moment we can say that depressions are often manifest by symptoms of organ pathology, or by aggression vented on the family; the management is the same as that for any depression. Treatment is basically psychotherapy aided in severe cases by proper medications and in agitated suicidal cases by electroshock. Patients with equivalent states are often more difficult to treat, and dynamic psychotherapy needs to be carried on skillfully and intensively for a long time with much support from the attending physician. Suicide, complete or partial, remains a possibility throughout.

Conclusions

Depressions are manifest by self-destructive trends. In some patients the self-destructive trends are expressed by (1) somatic complaints or, (2) behavior in a business or social sense which is seriously detrimental or which contributes to the discomfort, illness, or death of those about them.

Treatment of equivalents is more difficult than in manifested depression and requires prolonged, intensive, dynamic psychotherapy.

Treatment of Parkinson's Disease With Chlorphenoxamine

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ALTHOUGH many drugs are available for the treatment of Parkinsonism, no one preparation is unequivocally the drug of choice for every patient. Since those individuals with Parkinsonism exhibit wide variations in their response to the different drugs, it is helpful for the physician to have several preparations available even if one agent cannot be proved to be definitively better than another.[1]

This report will present our experience with another drug for the treatment of Parkinsonism—chlorphenoxamine (Phenoxene*). This compound, beta-dimethylaminoethyl (p-chlor-alpha-methylbenzhydryl) ether hydrochloride, is chemically related to diphenhydramine hydrochloride (Benadryl) (Fig. 1). As an antihistamine, it is as effective as diphenhydramine but has less sedative action.[2,3] It has been used in Europe as a histamine antagonist, but not as an anti-Parkinsonism remedy.

Studies have indicated that chlorphenoxamine does not have adverse effect on the blood or visceral organs and is a relatively safe drug.[4] Doshay and Constable[5] reported on its value in the treatment of Parkinsonism and concluded: (1) Chlorphenoxamine is relatively free of toxic effects; (2) it is of value in the treatment of Parkinsonism, particularly against rigidity, akinesia, fatigue, depression, and weakness; (3) it is less effective against tremor and, (4) it gives greater strength, freedom of movement, and longer duration of action than many other remedies. They found that chlorphenoxamine improved 53 per cent of patients who were inadequately helped by other remedies. In their experience, any new drug for Parkinsonism had clinical merit if 30 per cent or more of the patients obtained greater benefit than they could with other compounds.

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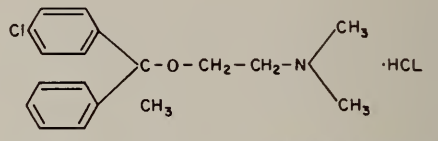
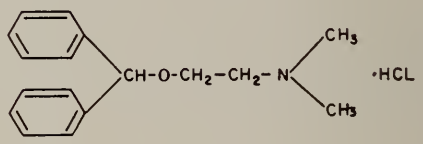
Clinical Study

This series consisted of forty-nine patients. Of these, forty-six had Parkinsonism, twenty-one idiopathic, thirteen postencephalitic, and twelve arteriosclerotic. Other diagnoses included striato-cerebellar degeneration (one) and essential or familial tremor (two). The patients were typical of those of any clinic. The majority had tried many remedies with only indifferent success, and the chlorphenoxamine was usually added to whatever they were taking at the time.



CHLORPHENOXAMINE HYDROCHLORIDE (PHENOXENE)



DIPHENHYDRAMINE HYDROCHLORIDE (BENADRYL®)

Fig. 1.

The average dose of chlorphenoxamine was 50 mgs. (one tablet) three times daily. Patients who noted no effect from this dose were advised to increase it slowly. A few patients exceeded a dose of 50 mg. four times daily; one patient with postencephalitic Parkinsonism found the drug of most value when taken in a total dose of over one gram daily (in addition to large amounts of other anti-Parkinson drugs!).

The results of our study are listed in Table I.

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*Phenoxene is the Trademark of the Pitman-Moore Company of Indianapolis, Indiana, to whom we are indebted for providing this drug.

With the highly subjective nature and daily variations of the Parkinsonian patient's symptoms, it seemed wise to interpret results only in terms of improvement or lack of improvement.

One patient with essential tremor found chlorphenoxamine very effective in relieving tremor while another patient with the same disorder found the drug ineffective. One patient who manifested a Parkinson-like syndrome in addition to signs of cerebellar dysfunction found slight improvement in muscle rigidity and tremor.

Of the forty-six patients with Parkinsonism, six found chlorphenoxamine satisfactory as the only medication for their Parkinsonism and also more valuable than the standard antispasmodic agents—trihexy phenidyl (Artane), cycrimine (Pagitane), and procyclidine (Kemadrin). The other sixteen improved patients (72 per cent of those who reported improvement), felt that chlorphenoxamine was of most value as an adjunct to other drugs.

TABLE I. RESULTS USING CHLORPHENOXAMINE IN PARKINSON'S DISEASE

Type of Parkinsonism	Improved		Unimproved	
	Number	Per Cent	Number	Per Cent
Idiopathic (21)	10	49	11	51
Postencephalitic (13)	7	54	6	46
Arteriosclerotic (12)	5	42	7	58
Total	22	48	24	52

As with the other antispasmodic agents, it was found that tremor was least affected by chlorphenoxamine. Doshay and Constable indicated that tremor might be accentuated in some patients. We had similar reports of increased tremor but felt that this was not a true increase, but rather the return of a tremor that had been previously better controlled. Some patients mentioned a general sensation of "feeling better," somewhat akin to what might be expected from a mild stimulant or an ataractic drug. Other patients noted decreased rigidity and akinesia. However, most patients who were aided observed some improvement of all of their symptoms. Therefore, our series would not allow us to be as specific as Doshay and Constable in delineating the particular symptoms that were helped most and comparing this action with the other standard anti-Parkinson drugs.

Side Effects

Side reactions were not troublesome. Only three patients discontinued the drug because of reactions, two because of dizziness, one because of nervousness. Fourteen patients (28 per cent) reported fifteen side effects (Table II).

A specific merit of chlorphenoxamine is of its value for patients who cannot take antispasmodic agents because of side reactions. Even though it may not prove to be as effective as the atropine derivatives, the reduced side reactions may make it preferable.

TABLE II. SIDE EFFECTS USING CHLORPHENOXAMINE IN PARKINSON'S DISEASE

Reaction	Number
Dizziness	5
Numbness in hands	2
Nervousness	2
Warm, sweaty feeling	1
Blurred vision	1
Dry mouth	1
Confusion	1
Mental dullness	1
Swelling of feet	1
Total	15

Conclusions

1. Chlorphenoxamine (Phenoxene) has value in the treatment of all forms of Parkinsonism, benefiting about half of the patients to whom it was given.

2. As the major medication for the patient with Parkinsonism, chlorphenoxamine does not seem to be as effective as the antispasmodic agents, trihexyphenidyl (Artane), cycrimine (Pagitane), and procyclidine (Kemadrin).

3. The primary value of chlorphenoxamine is its value as an adjunct to antispasmodic drugs.

4. The average dose is 50 mg. (one tablet) three times daily but larger amounts may be necessary, especially in postencephalitic Parkinsonism.

5. Side reactions are usually minimal. Dizziness is the most common complaint.

6. Patients who are unusually sensitive to atropinic side effects with the usual drugs may find chlorphenoxamine of particular value.

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Tetanus-Like Dystonic Reaction to Triflupromazine Hydrochloride

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TETANUS is so uncommon in urban medical practice that many physicians have never encountered a case. However, all recognize the disease as a constant threat. If a case of tetanus is to be recognized early, the diagnosis frequently must be based on minimal signs. Dystonic reactions to certain of the phenothiazine group of drugs have been described in the medical literature. Marked trismus has been a characteristic of these dystonic reactions. Several authors have noted the similarity to tetanus. The following is a case of a dystonic reaction to Vesprin®,* a phenothiazine derivative, which was seen in a clinical setting compatible with a diagnosis of tetanus.

Case Report

J. P., a twenty-seven-year-old white woman, registered nurse, came to the emergency room of the Oakwood Hospital at 4:05 P.M., Oct. 17, 1959. She complained of spasm of the jaw and facial muscles. She had been well and under the care of an obstetrician because of pregnancy of approximately two months' duration. At 1:30 P.M. she had noted gradual onset of a "drawing" or "tight" sensation over the right malar area of the face. This spread to include the right side of the mouth, then the left side of the mouth. She experienced difficulty in breathing and was brought to the hospital.

She was examined and found to be suffering from spasms of the facial, masseter, pterygoid, and tongue muscles. The spasms were sustained, but intermittent in nature, lasting approximately one to three minutes. By turns, a typical rhizus sardonicus was present, inability to open the mouth, and inability to close the mouth. Spasm of the tongue muscles was quite marked, the tongue being forced out between the teeth which were partially occluded. The patient was completely alert and very apprehensive. The spasms seemed to be aggravated, and at times initiated, by speaking. Neurologic examination was otherwise within normal limits. There was no difficulty in breathing through the nose. Further examination of the head and scalp revealed no abnormality. The eyes were normal, as were the ears and throat. There was no cervical adenopathy. The chest and lungs were normal. The breasts were normal. The heart was of normal size. The heart rate was 96 per minute. The cardiac rhythm was regular. There were no murmurs. The blood pressure was 120/80 mm. Hg. The abdomen was normal. Examination of the lower extremities revealed the presence of adhesive plaster bandages over necrotic tissue. The patient had been receiving treatment for plantar warts on both feet from a chiropodist. These treatments consisted of applications of a salicylic acid preparation weekly during the four preceeding weeks.

The patient had been previously immunized against tetanus. The last injection had been given nine years previously.

It was felt that the presence of a necrotic tissue lesion completed the requirements for a clinical diagnosis of tetanus.

Treatment was begun at 5:50 P.M. with sodium phenobarbital 0.12 gm. given intramuscularly. This dose was repeated at 7:05 P.M. After a negative skin test for horse-serum sensitivity, 15,000 units of tetanus antitoxin was placed in 500 cc. of 0.9 per cent sodium chloride and given intravenously. Another 20,000 units of tetanus antitoxin was given intramuscularly. A second intravenous infusion of 1,000 cc. of 5 per cent glucose in 0.9 gm. per cent sodium chloride was started at 10:20 P.M. An additional 20,000 units of tetanus antitoxin was added to this intravenous fluid. Procaine Penicillin 400,000 units with streptomycin 0.5 gm. was given twice daily. Sodium phenobarbital 0.12 gm. was repeated at 10:30 P.M. and 6:00 A.M.

Shortly after receiving the sodium phenobarbital and the starting of the intravenous fluid containing tetanus antitoxin, the patient became symptom-free and remained so. The patient was seen in consultation by a surgeon. Approximately sixteen hours after admission, the patient was taken to the operating room where debridement of the necrotic tissue of the plantar areas was performed. There was one large 4 cm.-in-diameter area and two smaller 2 cm.-in-diameter lesions on the right foot. On the left foot, one 1-cm.-in-diameter lesion was debrided. No anaesthesia was needed. No local infiltration of tetanus antitoxin was done. The procedure was uneventful. The patient remained in the hospital for five days. There was no complaint except for some soreness of the muscles of mastication. The temperature was 99.6 degrees Fahrenheit on the second hospital day. The tetanus antitoxin administered totalled 75,000 units.

Laboratory studies were within normal limits. Erythrocytes numbered 4,700,000 per cubic mm. Hemoglobin was 12.3 gm. Leukocytes numbered 9,500 of which 59 per cent were neutrophils, 37 per cent were lymphocytes, 3 per cent were monocytes, and 1 per cent were eosinophile. Urine analysis revealed a specific gravity of 1.018. There was no sugar or albumin. Microscopic examination revealed no

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*Vesprin® (trifluprom azine hydrochloride) is the registered trade mark of E. R. Squibb and Sons.

formed elements. Serologic test for syphilis was negative. Serum proteins totaled 6.6 gm. per 100 cc. The albumin fraction was 4.1 gm. per 100 cc. The globulin fraction was 2.5 gm. per 100 cc. Serum Calcium was 9.3 mg. per 100 cc. Serum potassium was 5.0 m.Eq./l. Microscopic examination of sections of the debrided tissue showed hyperkeratosis and parakeratosis compatible with veruca plantaris. Culture of the debrided tissue revealed no growth of organisms.

It was found upon further questioning after admission that the patient had visited her obstetrician on the previous evening. She had been given a supply of Vesprin tablets, 10 mg., and had taken one or two tablets that evening and one tablet on the morning of admission. The Vesprin was continued during the hospital stay and after discharge. There was no recurrence of symptoms of dystonia in the hospital while receiving Vesprin and phenobarbital, nor at home with Vesprin alone. The patient discontinued the medication voluntarily ten days after discharge because she felt that it was no longer relieving the nausea of pregnancy.

The outstanding features of this case are, as follows:

1. A clinical diagnosis of tetanus was made on a healthy young pregnant woman who had been immunized against tetanus nine years previously.

2. Conventional treatment for tetanus resulted in complete control of all symptoms within one hour. The brevity of symptoms suggested that another cause should be sought to account for the clinical picture.

3. The patient had been started on Vesprin, in the usual dose, approximately twenty-two hours prior to the onset of symptoms. There was no interruption in the administration of Vesprin during the hospital stay, nor for ten days thereafter. There was no recurrence of dystonic symptoms in spite of the continued use of the drug.

Discussion

The diagnosis of tetanus is not difficult if it is kept in mind. Muscle spasm is the clue, particularly the muscles of mastication and facial expression. If there is a necrotic lesion, or a history of recent penetrating injury, the diagnosis is more certain. There can be no help from the laboratory. Presented with these two findings in a patient, the burden of proof would fall to him who denies the diagnosis of tetanus. This is true, especially if there has been no recent immunization against tetanus.

It is quite clear, after study of the recent literature, that tetanus may be mimiced by the dyskinetic side effects of some of the phenothiazine group of drugs. A careful inquiry must be made regarding medication being taken by the patient. The physician who is called upon to treat the emergency situation is frequently not the same one who has prescribed the offending medication.

Included in the group of phenothiazine derivatives are the following drugs: Thorazine, Sparine, Tentone, Pacatal, Compazine, Dartal, Trilafon, Stelazine, Permitil, and Vesprin. These drugs have proved most useful, and have gained wide acceptance in relieving anxiety, tension, and restlessness. Certain somatic reactions have been observed in the use of some of them. These reactions are, as follows: weakness, fatigue, nausea, constipation, dry mouth, dizziness, epigastric distress, headache and hypotension. These somatic complaints have been transient and do not interdict the continued use of the drug.[1]

Three types of extrapyramidal neurologic symptoms have been recognized with the use of some of the phenothiazine drugs. The first, a drug-induced type of Parkinsonism is the best known. The second type is characterized by dystonia, or muscle spasm. The following have been described: trismis, torticollis, facial grimacing, dysarthria, labored breathing, involuntary muscle movements, scoliosis, lordosis, opisthotonus, and tortipelvis. The third type has been termed akathisia. This is best described as a motor restlessness or an inability to "sit still." The patient feels driven, may pace the floor, constantly wring the hands, or change position frequently.

These drug-induced extrapyramidal symptoms, Parkinsonism, dystonia, and akathisia, are reversible. It is possible to control or eliminate them by reduction of the dose, mild sedation, or antiparkinsonian drugs. The drug may be continued provided the extrapyramidal symptoms are adequately controlled by additional drugs. Some patients will develop increased tolerance to the drug.

There is varying opinion as to the incidence of the side effects of the phenothiazine group of drugs. Freyhan reported on trifluoperazine (Stelazine), a compound closely related to triflupromazine hydrochloride (Vesprin).[2] In this report, 64.4 per cent of patients developed extrapyramidal syndromes. The time of onset was in the first three days in 85 per cent. As related to dosage, the side effects are not dependent on higher doses but occur with minimal doses as well.[2]

Freyhan wrote, "The key to effective management of the extrapyramidal reactions is their prompt recognition. It would be difficult to estimate how often drug-induced dyskinesia has been misdiagnosed as encephalitis, meningitis, tetanus, or tetany, especially

in the case of women and children who receive phenothiazine compounds for non-psychiatric purposes."

Most authors have minimized the seriousness of the side effects of these drugs. It should be noted that one death has been reported, following use of Stelazine in large doses, a case of respiratory arrest.[3] More than one drug had been employed in this case.

Summary and Conclusions

A case of tetanus-like dystonic reaction to Vesprin® is described in a young pregnant woman. Complete relief of symptoms was achieved by conventional treatment for tetanus. Because of the widespread and increasing use of the phenothiazine group of drugs, physicians should be alert to the possibility of being suddenly confronted with a bizarre, frightening, neurologic problem which demands immediate treatment. One of the barbiturate drugs will afford rapid relief.

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Cat Scratch Disease in Minnesota

Epidemic Occurrence.—The epidemic of cat-scratch disease in the Minneapolis-St. Paul area is the third recognized epidemic of cat-scratch disease, the second recognized in North America. In the first year, twelve cases developed between October, 1955, and February, 1956; in the second year, six cases occurred between September, 1956, and January, 1957. All cases of cat-scratch disease reported in North America were reviewed and a similar fall and winter preponderance noted. About 90 per cent occurred during the months of September to February.

Family Epidemics.—Cat-scratch disease was observed in epidemics of two or three cases in four families, and in single cases in four other families. Both groups were similar in that three of the four families had one or more additional family members with positive cat-scratch skin tests. Among the thirty-eight apparently well family members, ten (26.4 per cent) had positive cat-scratch skin tests indicating an asymptomatic infection. Attack rate, clinical cases, and positive reactors, totalled twenty-four of a possible fifty-two (46.1 per cent). All families had cats aged three to seven months at the time of onset of the index case. This observation is probably explained by the fact that young and playful kittens scratch frequently. Cases occurred as late as forty-eight days after the last cat contact. In the family epidemics, the interval between cases varied from three to sixty-one days.

Intradermal Skin Test.—The specificity of the intradermal skin test with cat-scratch disease antigen was evaluated in six groups: (1) Well members of families with one or more cases of cat-scratch disease had an incidence of ten of a possible thirty-eight (26.4 per cent). (2) Well members of families of patients ill with a disease other than cat-scratch disease had an incidence of two of a possible thirty-seven (5.4 per cent). (3) Hospitalized children without clinical cat-scratch disease had an incidence of six of a possible 119 (5.1 per cent). (4) Outpatient and hospitalized adults without evidence or history of cat-scratch disease had an incidence of four of a possible fifty (8 per cent). Both group 5 (veterinarians) and group 6 (physicians) had an increased incidence of positive skin tests. The general population, groups 2, 3, and 4, had 5.8 per cent positive reactors; therefore, a positive cat-scratch skin test has a confidence level of about 95 per cent.—W. J. Warwick, M.D., and R. A. Good, M.D., *American Journal Diseases of Children*, August, 1960.

Phenomena of Transference in the Practice of Medicine

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DOCTOR-PATIENT relations have been popular as a topic for postgraduate presentation. The public relations approach fails to help with complex, puzzling, and even irrational behavior we observe on the part of some patients. To say that some behavior is "unreasonable" is to admit our lack of knowledge of its reasons. To say that our reactions are absurd, unbelievable, and without a cause is to admit that their causes are unconscious. Such *seemingly* inexplicable events, however, are very common in the practice of medicine. Through the irrational part of the patient's relation with his doctor, the patient may find himself miraculously cured, unnecessarily uncurable, experience "unjustifiable" rage and resentment, and other feelings towards his doctor. Sometimes he may become involved in troublesome misbehavior.

This type of irrational response of a patient to his physician has been found by Freud to have meaning and value. Freud noticed that patients could give up their illnesses, and achieve their own recovery when they felt themselves to be "under the influence of their doctor." This had been known for some time. Freud, however, escaped the megalomanic belief in "animal magnetism," and postulated that it was not he but "something the patient read into (him) that was the effective agency."[1] This was the discovery of transference. The insight into its meaning was now possible because Freud previously discovered the existence of the unconscious part of the mind, as well as its rules of operation, namely, the displaceability of feelings from one object representation to another, condensation, symbolization, and the indestructibility of unconscious strivings. As K. Menninger states: "Having discovered the existence of the unconscious and repressed memories, it was possible for him to see that the patient was reliving with him an interpersonal relationship which has been incompletely gratified in its original setting."[1] A person acting in transference responds to his perception of a new object as though he recognized a figure from his own infantile past. This represents an infraction of one of our most precious functions: the testing of reality. We can expect that this is done only on the behest of powerful forces.

The primary function of the mind is that of integration and the mastery of stimuli in such a way that a reasonable fulfillment of the needs of the individual is attained with the least danger to his survival. One of the difficult aspects of this function is the mastery of very intensive stimuli. Such stimuli are capable of overwhelming the individual. It is conceivable that overwhelming stimuli may cause shock and even death. Variables influencing the outcome include the intensity of the stimulus, the preparedness of the individual for the mastery of this stimulus, and his resources and strength to master it. If the stimulus is very intense, it may be necessary to temporarily suspend all ego function including consciousness—thus syncope in trauma. The assimilation of traumatic awareness, however, can only be delayed, but not avoided, without the person losing his bearing on reality. It becomes necessary for him to return to the memory of the event, and rework it in his mind. Such "reworking" may take place in one's thoughts, dreams, fantasies, and other mental events.

Unfortunately the use of words, thoughts, and even insightful imagery is not available for the integration of unconscious conflicts. This is a particularly serious state in view of the fact that a good portion of one's unresolved tensions consists of unconscious conflicts of titanic strength which never rest in their striving

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for fulfillment. One finds that these are characterized by the following properties:

1. Most of these conflicts have to do with infantile strivings particularly related to the child's attempt to master his own needs and his relation to his love object.
2. The nature of the conflicts is not conscious because they have given way to repression.

One of Freud's ways of defining repression is:

> . . . one instinct or instinctual component fails to accompany the rest along the anticipated normal path of development and, in consequence of this inhibition in its development, is left behind at a more infantile stage. The libido current in question then behaves in relation to later psychological structures like one belonging to the system of the unconscious one that is repressed.[2]

This account by Freud of the first step in the mechanism of repression accentuates the fact that basic to the normal development of the individual is his ability to develop his emotional life to an adult level of integration and that important in this psychosexual development is his relation with his love object. To the extent, then, that an individual has unresolved repressed conflicts, he has an arrest in his psychosexual development and has a compelling need to return and recreate such situations in his life in an attempt to master them.[3] The more inhibited an individual is in his ability to gratify his needs the more likely he is to be acting upon them without being aware of it.

The basic principle of transference behavior is that one is condemned to act out all impulses and conflicts of which he cannot be conscious. As Freud put it: "The patient reproduces instead of remembering."[4] In his need to remain unaware of the nature of the repressed motivation and meaning of his action, the patient has a need to "draw in" and involve his current objects. People in certain positions are especially suitable for transference of unconscious memories because they are identified with a certain role. Thus the policeman or the teacher might be the object of transference of feelings originally experienced in relation to one's parent who enforced "the law" at home. Similarly, a nurse might be identified with mother, a fellow worker with a sibling. The transferred feelings the patient experiences are real but their sources have been described by Freud as "highly lacking in *regard for reality*," and yet these experiences are, under circumstances of medical treatment, "as inevitable as the exposure of the patient's body."[4] The mere fact that we deal with patients in a situation in which illness has forced them to regress to modes of behavior they had not indulged in for years, sets the stage upon which the drama of their infantile conflicts must come back for a repeat performance.

This phenomenon makes possible the patient's "putting himself in his physician's hands" and obeying his instructions like a good child. Such a reaction is an indispensable condition of treatment; when a patient cannot indulge in it we have a serious problem. Unfortunately, along with this therapeutic bonus, we have to contend with other reactions as well. In terms of the psychoanalytic theory of drives, we can roughly classify acting-out of transference according to the two major drives in terms of their inhibition or overindulgence. In the first group we might find the prude, coward, or prohibitionist; while in the latter, we notice the libertine, bully, or masochist—as well as the individual involved in addictions or perversions. Freud summarized this as follows: (The patient) "reproduces everything in the reservoir of repressed material that has already permeated his general character—his inhibitions, disadvantageous attitudes of mind, and his pathological traits of character."[4]

The patient responds to a particular part of his image of his physician. The physician is not experienced as a whole object, as a person in himself with all varying implications, contradictions, and aspects of an individual; the patient's response is merely to the one aspect of his experience with the doctor which represents his unresolved conflicts which he merely picks out as subject for his repetition. This particular aspect of transference reactions becomes very important because it makes it sometimes difficult for the physician to know to what stimulus the patient is reacting. Where the physician may see himself as a person devoted to the helping of his patient, the patient may himself experience the physician as an attacker.

Case Illustrations

A patient presented himself with the symptom of impotence. His doctor instituted a course of prostatic massage. After two weeks of this treatment, the patient had to be admitted to a psychiatric hospital in a state of homosexual panic and paranoid schizophrenia. The patient believed that a mysterious man was going around and spreading rumors that he was a homosexual. Anamnesis revealed that the patient's impotence developed after his former lover broke up with him in order to marry another man. It was the presence of this other man that aroused anxiety about his own sexual function and caused his impotence. The doctor, unwittingly, made real the patient's feared fantansies of homosexual assault, to the point that the patient had to flee into a psychosis.

The anticipation of the patient's reaction is made more complicated by the fact that the patient himself is not only unaware of his reaction but also often unconscious of the particular aspect of the physician to which he is reacting. The following case illustrates the patient's failure to understand the nature of her transferred feelings:

A middle-aged woman was seen after she developed a rather severe depression following a hysterectomy. During the period of her convalescence from the hysterectomy she made expressions of her love to the physician and felt that the physician had spurned her and did not return her affection. One would at this point be inclined to take it for granted that it might have been either the patient's gratitude to her doctor or his own personal attractiveness that was involved in this reaction. However, neither was the case. The patient had for most of her life been very devoted to her own appearance and had invested a great deal of her own feelings in this aspect of her femininity. Prior to her operation she became so concerned about her age and "fading beauty" that she began nagging the husband and insisting on increasing reassurances of love to her. The husband did at times become so provoked with her that he called her an "old hag." One of the needs the patient had at the time was to be reassured of her femininity, particularly after she lost her womb. When one has an opportunity to understand the underlying conflicts it becomes quite apparent that it would be entirely inappropriate for the physician to accept the patient's confession at face value or to respond to it in some manner of sexual activity.

The patient who was thus acting-out her transference was unaware of the fact or meaning of such acts. The "hysterical character's" (a person who has repressed her genital sexual needs) overt seductiveness is as a rule accompanied by a complete unawareness and inability of acceptance of her seductive behavior. When the object of seduction responds with any type of overt sexual behavior, the patient has no recourse but to accuse the physician of "undue familiarity" or of attempted rape.

The patient's need to repeat various traumatic situations will include a varied and subtle spectrum of behavior. The need to provoke the physician may include the patient's need to mistreat himself by neglecting the doctor's advice, by refusing to conform with ways of behavior which an illness calls for, and particularly in the manner of keeping appointments, paying fees, and reacting to the reality of illness itself.

The Physician's Reaction to Transference Acts

Transference behavior will often be contrary to the patient's best interest or even to his recovery-wish, and many times quite inappropriate for the patient-doctor relationship. Thus the physician will be faced with frustration of his therapeutic enthusiasms. His own image of himself as a physician may be jeopardized by the behavior of the patient. This is particularly so if he takes the patient's activity for the face value rather than attempting to find out what it really means. When the patient's behavior causes unpleasant reactions in the doctor it is easier to become aware of the inappropriateness of such behavior. It is more difficult to resist involvement in an activity of the patient which flatters, pleases, or in some way gratifies unconscious needs of the physician. It therefore becomes important for one to consider the physician's reaction to behavior of the patient which, in last analysis, is inappropriate for the doctor's office.[5]

In order to be fully aware of the implications of the situation one should stop to consider that the relation between the physician and his patient represents a rather *intimate contact in which medical-ethical behavior can be maintained only in the face of continuous temptation to violate the therapeutic alliance.* Since it is impractical to list all the possible transferences of patients, or the varieties of undesirable or dangerous responses on the part of the physician, we will have to concentrate on a few basic principles involved:

1. Paying attention to his own reactions to the patient's behavior is necessary as a health measure for the doctor, and is essential in the best interest of the patient.[7,8]

2. The patient does not react to the "real" personality of his doctor but to his perception of him. Neither self-flattery nor righteous indignation need be the physician's response when this is kept in mind. Freud, speaking of one kind of transference reaction, put it as follows: (The physician) "must recognize that the patient's falling in love is inducted by the analytic (in our case, medical) situation and is not to be ascribed to the charm of his person. He has no reason whatever to be proud of such a 'conquest.' "[6] Similarly, other reactions by the patient, for example, paranoid projections, should not be taken as proof of the doctor's guilt.

3. No matter how unreasonable the patient's demands may be, and how kind the doctor's refusal to participate in the patient's need for transference, the patient will feel rejected and angry. The refusals to participate should be given *solely on the basis that these requests are incompatible with the therapeutic relation.* The doctor should then be ready to notice, and to discuss with the patient her reaction to her frustration.

4. The discussion of the patient's reaction to the "rejection" cannot be left unverbalized, or the patient may have to take revenge by leaving his doctor, causing himself an aggravation of his condition, or other untoward reactions.

5. The only way that one can be helpful to a patient who is acting in this way is to reflect to the patient in a mirror-like way the nature of his behavior and its inappropriateness. One may suggest that the patient pay attention to this symptomatic behavior as being his opportunity to become conscious of his conflicts and to attend to them. Neither the doctor nor the patient knows at this point the *real meaning* of the transference.

Problems of Counter-Transference

The ability of the physician to utilize the insight in regard to transference behavior will be interfered with by his own unconscious conflicts. If the patient's behavior touches on unresolved conflicts of his own he may be drawn into "misbehaving" with the patient. On the other hand, he may experience feelings of varying kinds toward the patient without the patient having provoked it in manifest behavior. It becomes therefore idiomatic that the greatest amount of insight on the part of the physician into his own feelings is the greatest health insurance for himself and his patient.[8] One should not, however, gain the impression that this "gaining of insight" is a one shot operation after which the doctor is immunized to such pathogenic exposure. On the contrary, a personal analysis is not an insurance for life against emotional drives and needs. One's mental health and integrity requires constant attention. There are always areas of unresolved conflict, "sensitive spots" in which our effectiveness as physicians is seriously limited. As Dorsey put it poetically—

> What we have repressed, we cannot use for purposes of identification.
> What we cannot identify with, we can only hurt ourselves with.[3]

Fortunately, there are a number of signals which warn us of dangerous exposures. The most common and important one is the physician's development of an emotional response, which is incompatible with his objective position. Paying heed to such danger signs can be of the greatest value. Whenever one is aware of intense anger, disgust, shame, sexual excitement, boredom, curiosity, or other intense emotional responses, one may be sure that this indicates that an area of his own unhealed conflicts has been exposed. He is responding with one or another form of psychic pain. It is proper to consider the intensity of one's reaction. At times it may be enough for the doctor to leave the room for a few minutes to regain his composure. At other times it may be the safest for him (and the patient) for the doctor to disqualify himself from the further handling of this particular case and refer the patient to another physician who will not be disturbed by this particular patient. Above all, it might be possible for the physician to use this warning to try to understand the meaning of the behavior of the patient.

When the doctor is not aware of his emotional responses to his patient, he may become entangled in a counter-transference reaction. The following common earmarks of such a state have been collected here from the works of Menninger, Sterba, and Petty.[9,10]

1. The fear of "losing the patient" resulting in acts which the doctor's best medical judgment precludes.

2. Carelessness in regard to arrangements as to time of appointments and manner of payment by patient (for example, encouraging the accumulation of debts).

3. The need to impress patients or colleagues with the importance of one's patients.

4. The urge to engage in professional gossip about the patients.

5. The feeling that the patient "must get well for my sake," or its opposite: regret upon losing the patient because of recovery.

6. Excessive conscious satisfaction over the patient's praises or disturbance over his criticism.

7. The urge to establish a personal relation with the patient exceeding the professional one, for example, asking favors of a patient.

8. Sudden loss or increase of interest in a case.

9. The doubting of laboratory results and need to repeat tests to allay the doctor's fear of making or discarding a diagnosis.

10. Arguing with the patient, moralizing, or blaming the patient for the failure of therapy.

The awareness of any of the above-listed reactions can be put to good use. The practical applications of this knowledge are many. By becoming conscious of these reactions, the physician can often understand his patient's transference. Such knowledge may prevent the patient's complications, such as invalidism or chronic illness, as well as prevent malpractice or other

law suits. When we put these responses to work for us, we gain new tools in diagnostic and prognostic study, as well as in therapy. Lastly, and less frequently, such responses may warn us of the development of personal difficulties. The early detection of these signs is in the best interest of each individual, and essential in maintaining one's therapeutic effectiveness.

Summary

The "patient-doctor relation" may provoke a number of unconscious reactions on the part of the patient in which the physician finds himself the innocent actor in the patient's attempt to re-enact the drama of his own conflict-weighted life. In order to be helpful to the patient, the physician must be aware of such behavior and beware of becoming involved in it. The most helpful attitude on the part of the doctor is to point out to the patient the inappropriateness of such behavior and encourage the gaining of insight about it. Where such behavior touches on the "sore spots or unhealed wounds" of the physician, himself, he may become involved in the patient's transference action. If he is insightful, he will become aware of emotional responses such as excessive anger, disgust, or other affects. In the best interests of both the physician and the patient such affects should be considered warning signals that something has been presented to him which he, the physician, is not prepared to handle at this time. A referral of a patient of this kind is considered part of wisdom.

Acknowledgment

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Platitudinous Ponderosity

"In promulgating your esoteric cogitations, or articulating your superficial sentimentalities and amicable, philosophical or psychological observations, beware of platitudinous ponderosity. Let your conversational communications possess a clarified conciseness, a compacted comprehensibleness, coalescent consistency, and a concatenated cogency. Eschew all conglomerations of flatulent garrulity, jezane babblement and asinine affectations. Let your extemporaneous descanting and unpremeditated expatiations have intelligibility and veracious vivacity, without rodomontade or thrasonical bombast. Sedulously avoid all polysyllable profundity, pompous prolixity, psittaceous vacuity, ventriloquial verbosity and veniloquent vapidity. Shun pestiferous profanity, obscurant or apparent.

"In other words, write plainly, briefly, naturally, sensibly, truthfully, purely. Keep from slang, and don't use big words."—*Detroit Free Press*, Graphic, 1926.

Psychiatric Emergencies in General Practice

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MOST PSYCHIATRY is practiced not by psychiatrists but by general practitioners and others engaged in non-psychiatric practice. Because psychiatric emergencies are unavoidable in medical practice of any sort, knowledge concerning these disturbing events is of practical value to physicians. At the Detroit Receiving Hospital there has been continuous research over the better part of the last decade into the etiology and management of psychiatric emergencies. This paper reviews some aspects of this work.

The Nature of the Problem

Any patient who develops a psychiatric emergency is much like a patient involved in any other kind of acute medical or surgical condition, in that he: (1) requires immediate attention, (2) can often do relatively little to help himself and, (3) reliance must be placed upon the technical competence of the physician in helping to re-establish any kind of stable equilibrium.

Major psychiatric emergencies may be considered in one of five general classes: (1) acute psychotic episodes, (2) suicidal threats and attempts, (3) addictive states (including alcoholism), (4) disturbed states associated with senility, and (5) attempted homicides.

Because rational therapy is rooted in an understanding of the nature and course of the disease process, a scheme of a very common mechanism of etiology will be presented which is intended to encompass this entire group. This will be followed by a discussion of treatment, particularly as it relates to general practice, although treatment principles are not basically different for non-psychiatrists than for those in specialty practice.

In considering etiology, constitutional factors are not given a paramount position. Many of the theories implicating constitutional predisposition to mental and emotional disturbances seem to serve primarily as protection for the self-esteem of the psychiatrist. If an illness is attributed to heredity or constitutional inferiority, the necessity to understand it psychologically and to offer appropriate assistance is obviated. While there can be no doubt that there are very obvious differences between individuals present from birth which are related to their capacity to withstand stress, a constricted focus on constitutional factors leads to an unjustified attitude of therapeutic nihilism.

By going one step further and examining the early family life of the patient who has subsequently developed a psychiatric emergency, one does gain evidence of factors which can be understood in psychologic terms and used therapeutically. Upon such examination a pattern of more or less gross family disorganization is found with remarkable consistency. Separation or divorce of parents, a shifting-about during infancy from one adult to another with consequent absence of a consistent and reliable maternal relationship, extensive psychopathology in one or both parents, and deplorable economic disturbances which make any healthy family life impossible—are among the commonest encountered. Since having someone to love and care for him is—to an infant child—an indispensable necessity for life itself, it is most astonishing not that so many individuals grow up to become mentally or emotionally ill, but that they manage to survive at all in spite of such overwhelming environmental hardships. Another observation is made with equal frequency: the person who is destined to develop a psychiatric emergency manages to maintain himself in a reasonable degree of homeostasis prior to the emergency through a very special relationship to one (or sometimes more than one) important person. This person seems to provide the patient with security and protection from the terrors and fears of his chaotic childhood experience. The patient's stability has become dependent in a large measure upon the course of this interpersonal linkage. So long as the intimate psychologic tie to an important figure (usually a family member and often a spouse) is un-threatened, life goes on and some real growth and achievement may take place. This achievement potential may collapse completely, however, if there is any real or imagined threat to this significant relationship. Some persons who develop a psychiatric emergency have had the capacity to develop such an important linkage, not directly to a specific person, but to a group, an organization, or a job. In this in-

stance, the power, prestige, or security that goes with the group situation serves a psychologic function similar to the more personal type of supportive tie.

We are now prepared to understand the beginnings of many specific types of psychiatric emergency. The illness itself often starts with a threat to—or actual loss of—a highly valued relationship. The common denominator seems to be the fear of loss of love, support, or security: in short, a "separation anxiety." It should be pointed out that the sense of "loss" need not be attributable to an actual event to be effective. As a common example, an adolescent suicide attempt may occur after "a funny feeling" has developed that a girl friend's affection is cooling off, even though she has taken no patently rejecting action toward him. The next event following the anxiety thus motivated, depends upon the individual's response to the threatened or actual loss. In response to any loss or frustration all people tend to experience some degree of anger or rage. It is the internal method by which this flood of aggressive feeling is managed that sets the stage for the form of the psychiatric emergency.

What possibilities are there? How can an overwhelming surge of hostile feelings be dealt with internally? There seem to be only three major channels. The most obvious, perhaps, is murder. If the important person doesn't meet the patient's needs, the latter's reactive anger can be discharged by killing the offender (or some "substitute" person) in an outburst of externally-directed, destructive aggression. The second and perhaps more common pathologic means of managing such intensely aggressive feelings is to discharge them against the "self," resulting in a suicide attempt. The third way is for the patient to back away from the conflict provoked by his own aggressive feelings and thus, at the same time, deny the threatening or actual loss. Frequently, this kind of defensive withdrawal can be accomplished only by the patient's making some gross mis-interpretation of reality, although it has the advantage of avoiding the destructive, often fatal, discharge of aggression by the other two major avenues. There seem to ge general tendencies in everyone to handle aggressive feelings in one of these three ways: turning inward, turning outward, or withdrawing. The problem in emergencies is a quantitative one. Regardless of the path the personality may utilize, if the quantity of feeling is sufficiently great, a psychiatric emergency will result.

When an emergency develops, what form will it take? To understand this, we must introduce another factor to render the sequence of events more understandable. The process of psychologic growth involves the abandoning of infantile and childish patterns of behavior in favor of more complex and adult patterns appropriate to the individual's chronologic age. In response to *illness of any sort*, more mature modes of functioning are temporarily abandoned for simpler patterns which belong to a less mature period of life. This retreat (or regression) may be minimal or very profound. The deeper this regression, the more helpless the patient, and the more crucial the doctor's understanding of the events involved. The deeper this regression the less logical the patient's behavior appears, as judged by ordinary standards. In large measure, it is the extent of this retreat and the avenue of discharge of aggressive energy which determines the clinical picture.

Illustrative Cases

With this encapsulated review of some of the more important links in the chain of circumstances leading to an emergency, several brief cases will be cited to illustrate the points involved.

The first is a case of an attempted suicide.

Case 1.—The patient is a man, aged fifty-five, who came to this country as a refugee at the heighth of the recession in Detroit. He had heard fantastic things about America and thought he would have no difficulty in finding a skilled technical job. He could not find work here. Both his wife and teen aged son did. He asked them to turn over their earnings to him, as head of the house, for disbursement. They were resentful. He became enraged and then suspicious of his family, and finally depressed. He began making veiled threats of suicide. He felt useless and unproductive. Early one Sunday morning he stated in a note left to his wife that he was going to Belle Isle. The police found him in one of the shallow lagoons, presumably trying to drown himself. He was admitted and discharged a few days later, when a friend found a job for him at a plant where he worked.

This patient was threatened with the loss of respect from his family, particularly his wife, and also with the loss of his own view of himself as an adequate man. The avenue of discharge of aggression was inward and the retreat from his usual level of functioning was very minimal. The suicide attempt was relatively superficial and he restituted quickly upon being offered the opportunity to work.

The second case is an example of a disturbed older person. The usual assumption about old people is that their mental disturbances are secondary to atrophic cerebral changes and that psychogenic factors have a minimal role. A close study of the manifestations of many thousands of these cases show that this is not

the case and that such patients, in spite of the obvious organic deficit, may fall into the same pattern of etiology already outlined for other emergencies.

Case 2.—This man, eighty-four, although senile, had no difficulty taking care of himself and performing useful household tasks. He began to become quite disturbed and confused in the usual organic fashion. He could remember nothing, roved away from the house and could do nothing for himself. His daughter had been considering moving to another state with her husband and children and it was a matter of concern to him what his own future would be if she should not take him along with her. In this case she did indeed leave him in Detroit (she had little choice about it, owing to the nature of her husband's work) and he was ultimately sent to a state hospital as a disturbed senile psychotic patient.

In this case, one sees clearly enough that the channel for expression of aggression was psychotic in character and the extent of retreat or regression was very marked and likely permanent.

Many clear-cut examples could be cited from among the addictions, but the following example will illustrate the point.

Case 3.—This man had been in Alcoholics Anonymous and abstinent for almost a decade. He was admitted in delirium tremens, the drinking bout having been set off by the fact that for the first time in his life none of his children remembered his birthday and he felt they were losing interest in him.

Here the channel of aggressive expression was dominantly self-destructive, with a deep temporary retreat or regression from his usual level of function.

One further clinical example is shown by the following:

Case 4.—A man in his early fifties was married to a woman many years his junior. They had been married for almost a decade and were seemingly quite happy. Previously he had been married and divorced. On returning home from a brief business trip, he found his wife with a lover. His reaction was alternately one of rage and depression and he brooded about it for several days, neglecting his business. After this period of brooding, he attempted to shoot the rival, but he did it in such conspicuous and silly way that the murder was prevented. When seen initially by a psychiatrist, the patient seemed totally out of contact, unaware of the way in which he came to the hospital, and only after several days did he clearly recall all the events.

In this instance, the aggressive channel was homicidal and the regression was moderately severe but transient.

Treatment

What does one do in dealing therapeutically with these kinds of psychiatric emergency?

The doctor first needs to identify the person or organization of importance to the patient, if he does not already know them. It is then necessary to discover what happened to introduce the idea of personal jeopardy—the separation anxiety. The acute situation is extremely favorable for the outcome of treatment. The essential information that one needs is not hard to obtain, since the other participants in the drama are usually readily available and eager to participate. They are often strongly motivated by their own conscious or unconscious guilt, as well as by a natural desire to help.

The doctor then talks to the patient as directly as possible about what the real situation is, as far as it can be understood, including specifically the nature of the stress and the patient's response to it. Sometimes this process of talking about the hard facts of reality must go on even more intensely with the relatives of the patient. In any case, the emotional demand made on the doctor in dealing effectively with the situation is very great, but on the other hand, demands on physicians are also great in other types of medical and surgical emergencies. Any technique the doctor may use to establish some real emotional contact with the patient is sound medicine. Different doctors may do it differently, but in making this initial emotional contact, the communication which is established with the patient is the all-important step in treatment. This can and does effectively stop the patient's retreat. The physician permits himself to be "taken in" as part of the partially defeated personality of the patient. When this happens, an important stage in the resolution of the emergency is reached. Many non-psychiatric practitioners have the capacity to do this on a purely intuitive basis and with very real success. The acute situation may, and often does, require a pharmacologic adjunct (sedation, and so forth) but no confusion should arise relative to the role of drugs. They are not curative, but adjunctive to the work of the physician who understands and deals correctly with the emergency problem. With consistent support and a thorough, repeated confrontation of the patient with the reality that must be faced, he can begin the difficult process of dealing with his feelings in a more constructive way.

Summary

A schema is presented concerning the nature of psychiatric emergencies. Attention is called to the factors of separation anxiety, aggression, and regression, in determining the manifestations of these syndromes. The crucial role played by the doctor in alleviating the condition is outlined and briefly discussed.

Newer Tranquilizing Drugs

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DRUGS to give a man a sense of peace or emotional comfort have been used since time immemorial and have included everything from alcohol, opiates, the solanaceous group through marijuana, bromides, barbiturates and, more recently, a new group of drugs which we include under the general terms "tranquilizers" or ataractics.

Just how did this come about? What was man seeking? Why did he have to avoid certain unpleasant sensory experiences, signals that came into his eyes, ears, nose, tactile system, taste, or combinations thereof? What was going on within his brain that he was seeking a respite? Was it fear of the dark, the phenomena of nature, attack of animals, by fellow man?

Within him were defenses against anxiety, the same mechanisms we all possess to handle tension. This is normal human physiology which enables a soldier to go into combat despite fear, which permits an individual to go on despite of depression after the loss of a loved one. Man could get surcease from his problems by going to sleep, provided he could fall asleep. Sleep since earliest times has been a wonderful state in which to escape, a repair station which enables an individual who is out of breath emotionally, so to speak, to catch it again. If I may quote Shakespeare briefly, "Sleep, the mother of all good; sleep, that knits the ravelled sleeve of care." But this remarkable mechanism can be decompensated, even as Macbeth learned when he added, "Macbeth shall sleep no more."

Very early man learned that the fermented grape or starchy substance could produce a chemical alcohol, which gave relief from anxious feelings. In larger doses it even produced sleep. Far back the alchemist was present early on the scene to provide drugs from various botanic substances—deadly night shade, the poppy, the hemp plant and others. In more recent times came the discovery of bromides by Ballard (1826), of barbiturates by Baeyer (1863), and most recently that group of drugs which I have mentioned above, the tranquilizers. It was Bein in 1953 who first described the peculiar property of reserpine as a sedative and hypnotic. He pointed out that animals on this substance would become tranquil and assume a resting position, they were not anesthetized and could be aroused by acoustic or tactile stimuli. This observation has been confirmed subsequently in the laboratory, and the electroencephalographic differences between barbiturate and reserpine action in monkeys was noted. The tracings of the animal under reserpine lacked the spindle and delta wave activity which is typical of barbiturate action, but the frequency of the reserpine rhythm suggested a stimulating effect on the reticular formation. In 1952-1953, Jean Delay and Peter Deniker in France, noted that the drug, chlorpromazine, had a remarkable action in patients with agitated status as well as in those presenting symptoms of confusion. They utilized this substance to manage patients with schizophrenia but soon application was found for other conditions. More recently a third substance with a myanesin-like action, meprobamate, was described as having a taming effect on monkeys and a quiescent effect on human beings. Although entirely different in its mode of action, it was said to have a certain component which resembled the quieting or "tranquilizing effect" of the other two drugs. Tranquilization thus became a non-specific term describing the three substances; later to be applied for groups of chemicals which are characterized by entirely different pharmacodynamic effects. Finally, all have become known as tranquilizing or ataractic drugs; called by some, phrenotropic or psychotropic. Chlor-

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promazine belongs to the phenothiazine group and was the first of a number of derivatives from this basic structure.

The remarkable feature of the tranquilizing drugs is their complete dissimilarity in terms of chemical structure, yet their striking similarity in many aspects in action. Thus, both reserpine and chlorpromazine reduce motor activity in experimental animals without inducing anesthesia. Hostility, if present, appears to be reduced by all three drugs, but in different degrees. Monkeys under reserpine and chlorpromazine can be handled without great difficulty but under meprobamate will resist being manipulated. The catatonic-like picture following high dose of reserpine or chlorpromazine is not seen after meprobamate, but the last in large doses will make the patient ataxic. Parkinsonian-like syndromes have occurred in certain patients after a course in reserpine or chlorpromazine but are not seen with meprobamate. Reserpine is typically parasympathicomimetic while chlorpromazine shows no particular shift in autonomic balance although it has significant autonomic effects which are rather diversified. Both drugs (in large doses) will produce hypothermia. Meprobamate has no striking effect on autonomic function. Of the physiologic effects of the drug, the threshold to electroshock is lowered by reserpine but meprobamate has a blocking action on electroshock. Chlorpromazine has a depressant effect on the diencephalic blood pressure regulation. We may also mention that serotonin, an amine which allegedly plays a neurohumoral transmitter role in mental disease, is liberated from the central nervous system and intestinal tract by reserpine but it is not affected by chlorpromazine or meprobamates. It has been pointed out by many investigators that while it is impossible to find a basis in experimental pharmacologic evidence, yet the similarity of the tranquilizing action is such that both reserpine and chlorpromazine may be used interchangeably in many conditions. Meprobamate, on the other hand, is useful chiefly in the states of anxiety and tension associated with muscle spasm.

The difficulty is augmented when one moves from the laboratory of the experimental animal to the area of man. Thus, one may set up a simple experiment in which five men are lined up at a bar. They are of equal weight and height, 160 pounds each, 5 feet 10 inches tall and of comparatively similar body build. A bottle of bourbon whiskey is set before them. They all have jigger glasses of the same size and each man takes five drinks. What are the effects? Man No. 1 becomes increasingly aggressive and finally offers to fight anyone in the room. Man No. 2 becomes increasingly friendly and wants to talk with the other four, if they will only listen. Man No. 3 becomes ardent and begins making passes at the waitress. Man No. 4 becomes depressed, sits with his chin in his hands, staring straight ahead. Man No. 5 gets sleepy and passes out.

Why the difference? They all took exactly the same substance. Why five dissimilar responses? As is well known, alcohol like any other drug of its kind can only depress, it cannot stimulate. We may use an analogy in a simple mechanism known to all, an automobile. If we were to exert a depressive action, by this I mean a retarding action, on the accelerator, we would slow the car. If we were to impose an equally depressing or retarding action on the governor which prevents acceleration of a car, the car would actually go faster. In other words, we would be retarding the retarder and therefore permitting speed-up.

The brain is made up of circuits or loops which are very elaborate. They feed backward or forward, reverberate, and send or receive from other circuits. Thus the brain is a system of balances and counterbalances which enable the smoothing of motion, transmission of sensation, and formulation of judgments.

A movement like the flexing of a forefinger is not "simple." If we were to stimulate the hand or finger area of the motor cortex with an electric current, the forefinger would move, but not smoothly. There would be a quick jerk. Actually, we could not move the forefinger unless we were aware of it, and the motor cortex must receive signals from some part of the sensory cortex, particularly the parietal lobe, in order to initiate the movement. The motor cortex is nothing but a way station, an internuncial, so to speak. It feeds down through the pyramidal tracts and finally reaches the region of the anterior horn cell. But again, an impulse in this pathway will induce only a jerk of the finger, not a smooth movement. Many tracts feed into the spinal cord, the tectospinal, the rubrospinal, the reticulospinal, the vestibulospinal and so on. They do not end directly on the anterior horn cell. They, with their fellow, the corticospinal tract, end along interneurones in the so-called internuncial pool, where they are met by certain synaptic resistances. As a result there is a smoothing of the neural impulse with finally a gradual feeding-out to the anterior horn cell. Even the last is not a simple system. The anterior horn cells

are made up of large fibers and small ones, the so-called gamma loops, all of which contribute to smooth motion and muscle tone.

This comparatively uncomplicated description pertains only to the wiggling of one finger. Think of how elaborate the brain mechanism must be in what we subsume under the general term "behavior." Think of all the activity that goes on in our brain, asleep or awake. The number of circuits are infinite, the cortical and cortical-associational group; the diffuse thalamic projection system with its feeding out of all of the somatic-sensory and viscero-sensory impulses; the reticular-arousing system which enables us to stay in the state of wakefulness or consciousness; the limbic system with its role in the handling of feeling experiences, emotions—actually a storehouse of previous experiences and "what to do about them." Add to these the autonomic nervous system and the neural humoral system, the brain in relationship to glands like the hypophysis, thyroid, adrenal, and the like. All combine into a very complex dynamic network with feeds into and feeds back; there is an intake and an output. These internal communication circuits are loaded with engrams, neural pictures of life's experiences, all functioning at different levels of awareness, and each pattern is highly individual.

I think that the concept of level of awareness needs a bit of elaboration. For example, all of you are watching me and listening. Now that I call it to your attention, you become aware that your lumbosacral region is pressing into the back of the seat. Certainly this part of you with a pressure of 100 pounds was feeding signals into your nervous system, but these were coming in at a certain level. The signals were being filtered by the reticular formation of the brain stem which sorts information exactly as a digital computer combs data, but the former is much more complex than our most elaborate electronic analyzers. Were we not to have this sorting system, we would be overwhelmed by stimuli coming from without. We simply could not handle the flood of impulses pouring in to us through every sensory modality. Suppose there were a splinter in your seat and it was digging into your skin. Certainly this new signal, which is coming in at a different intensity, would reach consciousness whereas sitting in a smooth comfortable chair does not reach awareness until I call it to your attention. This gives you an idea of the differential which can occur in one system alone, the reticular formation of the brain stem.

I review this, not to throw out large doses of neuroanatomy and neurophysiology, but to give you an idea of the complexity involved in the evaluation of a drug, if we are to have a true understanding of it. Into this elaborate mechanism of wires, relays, subcenters, we throw a chemical substance—alcohol, barbiturates, bromides, tranquilizers—and we say, "The drug acts on the brain." Where on the brain? Are all brains the same? I have already mentioned that the engrams are as different as are people. Therefore, five men at the bar, with five anatomically similar brains, but with five dissimilar sets of life experiences, have five different reactions to the same drug. The fundamental action of any of these drugs, be they alcohol or reserpine, is the depression of part of the circuitry of the brain. The result is release, and what is released is that which is available. In short, the drug pulls the lid off the Pandora box of the nervous system and whatever is contained in that box proceeds to tumble out. All lids do not come off the same way. The one that is drawn back by barbiturates, which depresses high cortical activity and produces sleep, is quite different from that removed by the tranquilizers which work through the reticular formation and which, in ordinary doses, do not affect high cortical activity.

Dosage is another factor. A small dose of alcohol, by depressing cortical associational circuits that participate in the process of anxiety, tension, and the like, release the person, so to speak, so that functionally he is better. We have proved this recently in our laboratory. However, larger doses slow down reflex activity, interfere with motoric execution, impair judgment, and finally scramble the entire cerebral response.

One cannot evaluate drugs in human beings without taking into consideration the so-called placebo effect. In late 1955, an interdisciplinary team of a psychiatrist, an internist, and an anesthesiologist at Northwestern University Medical School performed a carefully designed experiment on "The Effect of Rauwiloid on Preoperative Anxiety." Thirty patients on the surgical service were selected at random. Operative procedures to which they were to be subjected varied from varicose vein ligation to abdominal-perineal resection. Most of the patients required general or spinal anesthesia, although five were operated under local. Rauwiloid was given six days prior to surgery in a concentration of 6 mg. per day. Half of the patients received the active drug; half were given an identical, but bland, pill prepared by the same pharmaceutical house. Neither the doctor, the nurse nor

the patient had any idea of exactly what was being administered, a true double-blind experiment. The code was broken at completion of the study. Each patient's self-assessment was evaluated. He was interviewed by the psychiatrist at six days and one day before and one day after operation. He was also interviewed regularly by the nurse and anesthesiologist. The observations of the last two were either anecdotal or so deviant that they could not be utilized for integration into final results. Data on twenty-nine patients of the thirty could be quantified at the end. One patient had to be canceled from the experiment because of marked blood pressure fall. There was absolutely no difference between the two groups, between those receiving the active drug and those taking the inert substance. The patient whose blood pressure dropped precipitously was taken off the medication at the insistance of the chief of the surgical staff. When the study was ended it was discovered that this particular patient had been on the placebo. It was interesting that in the placebo group, two patients had a significant drop of blood pressure, ten remained unchanged and two had an increased blood pressure.

A striking aspect of the outcome is that twenty-eight out of thirty patients, by their own rating, considered themselves improved by the medication. This was in comparison with patients who were not in the experiment. Since the sole difference between this group of patients and any other thirty patients in surgery was the fact that there was a high level of communication between patient and doctor, the only conclusion that could be reached was that the subjective improvements in the patient resulted from patient-doctor relationship. The placebo was merely part of the language of communication. It would seem that all patients got an idea from general contact with the doctor, although not expressed overtly by the latter, that they were being handled in a way to alleviate their preoperative anxiety. In this relationship they obtained information about the nature and timing of the surgery. This was very reassuring to all of them and was apparently the most effective therapeutic agent in the test.

This experience is not new. Studies by others would indicate that placebo effects are not imaginary, nor are they results of suggestion. The investigations of Stewart Wolf have been particularly revealing, and his conclusions would indicate that the responsible mechanism for placebo responses is connected with circuits in the cerebral cortex. All placebo experiments, in order to eliminate suggestion, must be blind because the physician, too, must not know whether he is giving a strong drug or a control. Thus, one of Doctor Wolf's favorite examples is that of a patient who had suffered from chronic asthma for twenty-seven years with almost continuous attacks for seventeen. He had been a useful subject on whom to test new drugs. Finally a product of a pharmaceutical house seemed to be effective. When he was given the agent he was free of asthma; when it was stopped the asthma returned. When the doctor substituted a placebo without the patient's knowledge, the asthma was not relieved. Shifts from agent to placebo, and from placebo to agent, were carried on several times with consistent results, always in favor of the agent. When the company was approached for an additional supply of medication, their representative acknowledged that they had had so much trouble with positive enthusiastic reports that in this instance they, too, had sent a placebo. The doctor knew nothing of it, nor the patient, who was doing beautifully on a bland substance even though he failed on the doctor's own placebo. Apparently the latter was presented in some manner by the doctor which may have left the message that it was an inert substance.

In late 1942 and early 1943 during World War II, I met the best "tranquilizer" that I have even encountered, a young nurse who had a remarkable ability to put a ward of anxious soldiers to sleep. This young woman, who we may call Miss R., never used drugs. She became the toast of the Fifth Army; her reputation spread rapidly, and at night in our ward I would always hear the call, "Miss R., come tuck me in; Miss R., come straighten my pillow," and this she would do. She would tighten a blanket, she would fluff up a pillow, she would tuck a soldier in here and there, she would pat one man on his seat; she might lean over and give another man a light kiss on his cheek, at his request, and in a short time, thirty or forty men would be sound asleep. Not dreaming of battle, but dreaming of Miss R. I am sure.

This tranquilizing of people by a loved one or by some symbol is as old as man. Who among you has not heard the call, "Mommy or Daddy, come tuck me in," and when that act is completed, little Bobby, who has been bouncing all over the bed, goes to sleep. How many times have you seen an older child, even in late adolescence, call down as you open your house door at midnight, "That you, Daddy? Good night." He will admit to you the next morning that he could not sleep until you got home, but the moment you

opened the door he became drowsy and was able to fall asleep. How many devices are used for tranquilization—hot milk, Ovaltine, a bunch of grapes, even crackers.

The question then arises, "Shall we use drugs?" and the answer is, "Of course, where the situation demands it." Certain general rules must be kept in mind. Aging brains, for example, do not tolerate powerful sedatives well. These produce confusion. Clow has shown that if 100 confused, psychotic old people are placed in a good hospital setting which is friendly and considerate of all their physical and emotional needs, given reassurance repeatedly and taken off all drugs, I repeat, *all drugs,* at least 60 per cent will clear. An old person who becomes confused at night is much better off with a 15-watt baseboard light which enables him to orient himself if he awakens at 2:00 in the morning to go to the toilet, than with a drug to knock him out so that he will sleep all night. A drug only adds a daytime confusional state to the nighttime sensory deprivation bewilderment. Certain drugs, like seconal and nembutal, when taken in large doses over a long period of time, may have a dangerous sequel. If the individual is suddenly taken off medication, he may develop a withdrawal syndrome, with convulsions and psychosis. I have seen this many times, and the condition was recently described by Harris Isbel of the United States Public Health Service at Lexington Hospital for the Narcotically Addicted. One has only to see the effect of large doses of barbiturates on the electrocorticogram to realize that a disturbance in brain rhythm may ensue when, after prolonged intake, the drug is suddenly discontinued. If a patient has a convulsive diathesis and he is on large doses of phenobarbital, the sudden removal of the drug may cause him to go into a status epilepticus. In short, the barbiturates, while commonly used, are not entirely benign. Bromides in large doses may produce intoxication and descriptions of this state go back to the middle of the 19th century when the drug-induced confusional state simulated the then-common general paresis. Many a diagnostic error was made by the unwary. We still see bromide psychosis not infrequently, because substances containing bromides may be sold over the druggist's counter.

The effect of the drug depends on the level of the symptom to be relieved. If a patient starts with intense pain, morphine is about 75 per cent effective. A placebo given that patient is about 35 per cent effective. In other words, the placebo equals 50 per cent of our most powerful drug, morphine. If the patient has only moderate pain, morphine is about 52 per cent and a placebo is only about 40 per cent effective. As the pain becomes less severe, the placebo benefit drops to 29 per cent. If a patient is very anxious, any drug is about 60 to 70 per cent effective and the placebo ranks close to this figure. A large wound in a soldier, his safe ticket home, is often a powerful tranquilizer. He complains of no pain, he does not ask for drugs. Weeks later, with the wound almost healed, and the prospect of return to duty looming, anxiety and sleeplessness set in. He begs for sedatives for the day, sleeping medication for the night.

Therefore, where do we stand with these so-called tranquilizing drugs—the reserpine group, the phenothiazine derivatives, the meprobamates? I shall not even begin to attempt to review the literature on these. Two years ago there were almost 6,700 articles written on chlorpromazine alone. There have been many symposiums on these drugs—those of the New York Academy of Science, the American Association for the Advancement of Science, the Association for Research of Nervous and Mental Diseases, and the International Conference in Psychiatry in Zurich, Switzerland, 1957. Their mode of action has been described in these publications and I believe that it is worthwhile owning these books so that references on the important experimental work going on in this field are available at hand. It is essential to keep in mind that these drugs may exert their clinical effects of quieting or tranquilizing without the severe depression or the heavy sedation characteristic of other drugs, like the barbiturates or opiates. Some of the hyper-reactivity of the tense or anxious patient may be due to excessive transmission of sensory information along neural pathways without effective selection or control. Drugs like chlorpromazine, by increasing reticular input and conduction and thus enhancing this remarkable filtering mechanism that I have described, may act to reduce the inflow of information which is of no importance to the organism and which serves only to disturb.

On the other hand, such drugs should not be used arbitrarily only to control a symptom. A patient who is vomiting should not be given chlorpromazine to control vomiting without going about learning why he is vomiting. I have seen several instances of brain tumor where the vomiting caused by the neoplasm was treated with this drug and no systematic attempt made to learn the cause for the symptom. On the

other hand, the post-occipital muscular pain called "headache" by the person who is under tension, yields much more effectively to meprobamate than to codeine. A hypotensive patient who is tense and anxious is much safer with reserpine than with chlorpromazine which may augment the blood pressure drop; but the patient with an agitated depression may do better on chlorpromazine than on reserpine because the latter has been known to precipitate or aggravate latent depressions. Chlorpromazine in large doses may produce a Parkinsonian-like state, but this is easily reversed by stopping the drug, and one should always keep in mind that among the phenothiazines, chlorpromazine is the most likely to produce liver damage and jaundice.

One cannot pick up an article on the tranquilizing drugs without reading their effect on psychotic patients, that tremendous group of neglected people who fill more hospital beds than all other patients combined. Many of you have read reports like the following: "In this study of the effects of the drug, eighty-five patients were treated; 50 per cent showed a decided improvement and 75 per cent benefited to some extent."

This report is not describing chlorpromazine or any of the other phenothiazines; it is not describing the results of reserpine or any of the rauwiloid products; it is not describing meprobamate. This is a 1926 report in the *American Journal of Psychiatry* on the use of bromides in psychoses in a State hospital. I have seen similar reports in mid-nineteenth century French and German literature on bromides and opium.

We may properly ask then, "Has anything new been added?" and the answer is a categorical "Yes." In the past ten years we have become familiar with a large group of drugs which enable us to handle many conditions which heretofore we had treated with more sedative, more depressing, more hypnotic, and more confusing drugs. Our patients are clearer now and are able to go about their business more effectively. Yet the very volume of the drugs that are sold frightens one. Too many patients start with a doctor and then continue treatment on their own. They obtain the drug over the counter or by prescription and take more and more until they reach tremendous doses. I have seen dosages up to 4,000 mg. of chlorpromazine daily. I learned that some patients admitted to the psychiatric unit at Bellevue Hospital in New York have gone up to 11,000 to 12,000 mg. I heard of one instance in Texas, which is never to be outdone, where a patient was taking almost 15,000 mg. daily!! Too many patients are prescribing these drugs on their own. There are dangers, there are limitations, and the proper precautions should be established. Similarly, there are many instances where a doctor dealing with a functional problem handles the symptoms through the use of a tranquilizing drug rather than sitting down with the patient and learning what is causing the anxiety. This sets up the vicious cycle of making the patient dependent on a drug and does not ever come to grips with the basic emotional difficulty underlying the symptom.

Therefore, to summarize, the tranquilizing drugs are very useful and, comparatively speaking, are safe. They are not miracle drugs, our newspapers and lay magazines notwithstanding. They are therapeutic substances, and thus are welcome in our medical armamentarium. They are to be employed in symptomatic treatment; they are not curative of specific conditions in the sense that quinine can be used for the cure of malaria or penicillin in pneumonia. They merely handle the disturbance in the neural communication system. They are useful in that they render the patient more available for approach by the physician who can better communicate with the patient and get to the underlying cause. In short, these drugs are tranquilizers, facilitators, but they are never a substitute for a full doctor-patient relationship.

Love of Country

"It is of infinite moment, that you should properly estimate the immense value of your national Union to your collective and individual happiness;—that you should cherish a cordial, habitual, and immovable attachment to it, accustoming yourselves to think and speak of it as of the Palladium of your political safety and prosperity; watching for its preservation with jealous anxiety; discountenancing whatever may suggest even a suspicion that it can in any event be abandoned, and indignantly frowning upon the first dawning of every attempt to alienate any portion of our country from the rest, or to enfeeble the sacred ties which now link together the various parts."—George Washington

Current Research Concepts In Schizophrenia

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SCHIZOPHRENIA, one of the most serious and prevalent of the mental illnesses, remains in many ways a disease of speculative theories. The clinical definition of this illness or syndrome is still open to considerable debate among psychiatrists, and the problem of establishing an etiologic basis remains even more elusive. The illness has remained an enigma despite much basic research concerned with underlying pathophysiologic and psychodynamic mechanisms as well as the empirically-oriented treatment research. Many disciplines have been concerned with research in schizophrenia, such as genetics, biochemistry, physiology, psychology, sociology, anthropology, epidemiology, psychoanalysis, and clinical psychiatry, but in their intensive scrutiny of the disturbance much confusion continues to exist. Many investigators believe that schizophrenia is a final common pathway related to a number of etiologic factors. Others postulate that the majority of schizophrenic patients may fall into a unitary concept of illness with an as-yet-undiscovered primary cause.[1]

One of the most impressive aspects of the schizophrenic illness is the patient's sensitivity to stress, particularly of an interpersonal nature. Many of the symptoms of this illness such as withdrawal, social isolation, autism, and paranoid projection can be viewed as defenses against such stress. The affective dissociation, regarded by Bleuler[2] as one of the fundamental symptoms of the illness, appears to have the significance of obtaining an emotional isolation from human experiences, particularly those which may have any stressful significance, real or symbolic. With the occurrence of stress, an associational breakdown characterized by disturbed patterns of thought and verbal expression readily becomes apparent. Internal stimuli may be projected into the outside world and experienced as hallucinatory phenomena. The pathologic mechanisms involved in this increased sensitivity to stress require continuing investigation with new research approaches.

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Sociocultural Studies

During the late eighteenth and the nineteenth centuries there was a tendency to relate the incidence of mental disorder to the degree of civilization and to idolize the life of the primitive as being free from disabling psychic disorders. More recent investigation has concerned itself with the discovery of differences in the incidence and form of mental disorder in various cultures, and has attempted to relate such differences to social and cultural factors. In any one culture these differences may be relatively small, and, therefore, their effects on mental health elusive. By studying many different cultures of tremendous variation in pattern throughout the world one may note differences in the incidence and form of mental disorder. The results of such studies have considerable social, cultural, and therapeutic significance.

Early during this century Kraepelin[3] directed his interest toward comparative psychiatry to determine if dementia praecox were a disease of civilization and its unpleasant accompaniments. He gathered data from psychiatrists over the world and concluded that the disorder was not related either to race, climate, food, or any general circumstances of life, and contended that it was basically a biogenetic disorder. Other early studies made by anthropologists on mental disorder (and particularly schizophrenia in primitive cultures) emphasized that there was little or no evidence of such disorders.[4-7] Nearly all subsequent studies[8-16] have described manifestations of schizophrenic behavior among primitive peoples. On the whole, schizophrenia is the major functional psychosis recorded among all populations, non-literate and literate alike. However, schizophrenia does tend to be poorly defined clinically among primitive peoples and the thought content varies from one culture to another. The Bantu schizophrenic patient[17] has delusions of being poisoned and bewitched, auditory and visual hallucinations with predominantly mythologic content, and delusions of grandeur in being a chief or witch doctor. In the Western culture during the sixteenth century, it was not uncommon for the schizophrenic

person to feel possessed, visited by an incubus or succubus, or tortured by the devil and witches. Present-day schizophrenic patients from Western societies are concerned about influences through telepathy, electricity, radioactivity, television, and spying from the F.B.I. or the Communists. Much magical and religious content may also be present, but related to particular cultural and social patterns that the patient has experienced.

The interesting study by Goldhamer and Marshall[20] on the incidence of functional psychoses in Massachusetts over the past 100 years appears significant in terms of cultural changes occurring during this period and their possible relationship to mental disorder. From their study they concluded that there was no increase in the incidence of functional psychoses in the past century. The disparity in admission rates between the nineteenth century period and the present day depend on the larger number of psychoses among people in the older age groups rather than an increase in the incidence of schizophrenia.

A number of pertinent ecologic studies[21,22] on mental disorder have been made on our society; there is agreement that high rates of schizophrenia are concentrated in the center of the city and decline in all directions toward the periphery. Characteristically, the central areas show a greater amount of lowered social and economic factors. This is in contrast to manic depressive illness where rates are more evenly distributed throughout geographic regions.

Many methodologic problems have been demonstrated by all the studies in this field.[23,24] A number of variables are involved in mental illness in any culture. First, there is the need for definition, location, detection, and diagnosis of the illness. The course of the illness, whether acute or insidious, and age and sex factors may influence incidence figures. The presence or absence of treatment facilities is important, and incidence figures may be exaggerated by neglect. The social class of the individual should be specified; also the folklore myths and rituals of the particular culture and the attitudes toward mental illness in the community are important.

From these studies one can conclude that schizophrenia is a universal illness and, characteristically, the most common functional psychosis among all cultures. The incidence figures for this illness throughout the world are inconclusive and many methodologic problems will have to be solved before definite valid rates will be available. The fundamental symptoms of schizophrenia are the same throughout the world. Accessory symptoms such as delusions and hallucinations vary from one culture to another, and are often involved in the magico-religious thinking of the society.

Psychodynamic Factors

Psychodynamic studies remain fundamentally oriented as an extension of the principles of psychoanalysis. Freud early realized the significance of psychodynamic factors in the genesis of schizophrenia, which he first reported as a disturbance of libido function in his famous paper on Schreber.[25] Here he reported that an unconscious homosexual conflict leads to the use of the paranoid projective mechanism. Later Freud[26,27] emphasized the occurrence of ego breakdown and disintegration in schizophrenia; many of these concepts were further elaborated by Federn[28] and others.[29,30] Sullivan[31] and Fromm-Reichman[32,33] concerned themselves with the severe interpersonal traumata experienced by the schizophrenic early in life. These traumata result in subsequent inability to establish relationships with other people because of the patient's overwhelming conflicts related to hostility and dependency. Early in the life of the schizophrenic individual, experiences of warp and rejection are significant in producing intense conflicts of dependency and aggression. Weak ego development and autistic self-depreciation result. These writers have emphasized the communication aspects of these conflicts in the manifest content of schizophrenic symptoms.

Increasing interest has been paid to the impact of the early mother-child relationships on the development of the personality. Spitz[34-36] has clearly shown that a disturbed early relationship, particularly the absence of the mother or a maternal figure, has an overwhemingly disastrous effect upon the psychologic as well as physical development of the child. If mothering does not occur, the child is much more susceptible to any physical illness and may later show learning difficulties or even mental deficiency. It seems apparent that sensory stimulation and close maternal care are necessary for the development of the personality.[37] These observations have not demonstrated that schizophrenia develops from these particular parental relationships, but certainly imply that such factors may have a very disastrous effect upon the development of the individual.

The body image and its relationship to both normal psychologic functioning and psychopathology has been the subject of serious scrutiny.[38] A constantly maintained, correctly interpreted, interoceptive sensory in-

put would seem essential for accurate evaluation of reality. In the development of psychoanalytic concepts of schizophrenia, Federn and Schilder placed central emphasis on disturbances in the body image as being the core of the schizophrenic process. Following their example, three English psychoanalysts[39] observed a ward of chronic schizophrenic patients over a period of many months. The patients' confusion about identity was clearly evident, as illustrated by their inability to distinguish where their body boundaries ended and those of other people began. Their fears of being swallowed up by and fusing with other persons were often expressed and were interpreted as being related to their lack of body definition. Fisher and Cleveland[40] reported a study comparing a group of chronic schizophrenic patients with normal subjects and with patients suffering from rheumatoid arthritis. From psychologic test indices they constructed a "barrier score" which referred to body boundary delineation. Chronic schizophrenic patients characteristically had low barrier scores. Studies of the effects of sensory isolation[41] and psychotomimetic drugs[42] which inhibit, facilitate, or scramble sensory input have clear relevance to this phenomenon.

Several interesting and carefully conceptualized studies of schizophrenic patients and their families have been made by the Mayo and Yale groups. In the Mayo study[39-40] twenty-seven schizophrenic patients and their families were studied by collaborative research in which extensive work was done with the patients and their parents. It was found that the schizophrenic patient was exposed repeatedly to a number of severely traumatic and overwhelming assaults of a sexual and aggressive nature by the parents. The severe traumata impaired personality development, and in response to subsequent precipitating factors, many of the developing symptoms (such as delusions and hallucinations) represented in a striking way the assaultive behavior of the parents. They conclude that in schizophrenia there is an introjection of the hostile parental aggressor by the patient with attempts to repress and deny the importance and meaning of the parents' behavior. As the illness becomes overt there is a projection of this feeling onto the outside world and a reliving of the earlier conflict.

Multiple techniques have been used by the Yale investigators[46-51] in an effort to recreate the personalities and the atmosphere of the family groups of schizophrenic patients. To carry out this research, repeated interviews and psychologic tests on schizophrenic patients and members of the family have been done. Not one of the families has been well integrated. It is interesting to note that 60 per cent of the patients had at least one parent with mild schizophrenic or clearly paranoid symptomatology. Chronic alcoholism, severe obsessive compulsive neurosis, passive dependent personality disturbances, and other gross psychopathology were common familial problems. Many distorted relationships occurred within the family setting. Irrational intrafamilial systems of communication occurred that distorted or denied the intermittently valid interpretations of the environment. Marital relationships were all seriously disturbed and there were repeated threats of separations, coercion of one parent by the other, interrogation, and criticism. Imitation of irrational parental behavior and partial identification with the dominant parent appeared to play a significant role in the development of accessory symptoms. It is the impression of this group that the basic schizophrenic process is a reflection of the abnormal family organization. Schizophrenic symptoms may represent developmental failure in personality organization as much as disorganization in the sense of regression.

These studies demonstrate the significance of the role of early psychodynamic factors in the development of schizophrenia. To what extent these factors represent the primary etiology of the illness at present is difficult to say. Similar factors are seen in the development of other mental disturbances, but the intensity of such conflicts may be greater in schizophrenia.

Genetic Factors

A hereditary aspect in schizophrenia has been emphasized for a number of years. It is only with the recent work of Kallmann[52-54] and Slater[55] that evidence implicating the genetic factor has been presented. Kallmann has studied families of schizophrenic patients and schizophrenic twins. His conclusions are that children born of one schizophrenic parent have a 16 per cent probability of developing schizophrenia and the children of two schizophrenic parents, a 68 per cent probability. Siblings of schizophrenic patients have a 14 per cent probability, while the probability for two-egg twins, when one is already schizophrenic, is 16 per cent. Among one-egg twins, when one has the disease, the probability that the other twin will develop it is 86 per cent. Morbidity, therefore, consistently increases with the increase in the closeness of the blood relationship. Kallmann has stated that schizophrenia is probably related to a mutant recessive gene which may cause some type of specific enzyme deficiency. He has stated that his genetic theories do

not explain schizophrenia in its totality and that psychologic factors interacting with the genetic factors may be very significant. Slater believes that a number of genes of small effect, half of which are common to any two brothers or sisters, play a significant role in the production of schizophrenia. The greater the genetic penetrance, the less the need for external or environmental factors in causation. The lesser the genetic penetrance, therefore, the greater the need for external environmental factors in producing the illness. At the present time, however, from the available data it seems premature to talk about biochemical genetics of schizophrenic illness. If such biochemical defects having a genetic basis can be found, the hypothesis concerning the genetics of schizophrenia can then be more clearly defined. At present much is questionable about the work and further investigation is necessary.

Biochemical Factors

Intermediary carbohydrate metabolism has had recent emphasis in biochemical studies of schizophrenia. With the development of new techniques in the use of radioisotopes, intracellular phosphorylation has been extensively studied in the schizophrenic population. In 1955, Nagy and Gerty[56] reported differences between normal subjects and schizophrenic patients in intracellular phosphorylation after they were stressed with insulin. The Lafayette Clinic group[57-60] postulated that there was an energy deficit in schizophrenia and measured the specific activity of adenosine triphosphate (ATP) in a control group and a schizophrenic group. The resting rate of ATP turnover in the schizophrenic group was greater than in the normal group. After being stressed with insulin, the specific activity of ATP in the schizophrenic group was reduced while among the normal subjects it increased adaptively to meet the stress. With the use of labeled glucose these investigators have demonstrated a blocking of the control of the hexose-monophosphate shunt in schizophrenic patients, indicating that again under stress the schizophrenic patients cannot shift from the synthetic to the high energy or Emden-Meyerhof part of the cycle to meet their need for increased energy output. Thus a basic defect in energy mobilization has been demonstrated which may explain the often-reported inability of the schizophrenic patient to meet stressful situations. These findings should be evaluated cautiously inasmuch as they may well be secondary to the prolonged inactivity and withdrawal or irregular dietary habits associated with the disease rather than being etiologically significant.

Much excitement occurred when Akerfeldt[61] announced that the blood of schizophrenic patients oxidized N'N-paraphenylenediamine more rapidly than normal blood. This was presumably related to increased oxidase actively associated with elevated levels of the copper-binding globulin, ceruloplasmin.[62] Abood and his co-workers[63,64] also reported that when normal subjects were given hallucinogens their ceruloplasmin levels (as measured by oxidase activity) rose, apparently in an effort to detoxify the substance. The Tulane group[65,66] stated that ceruloplasmin was high in schizophrenia as a defense against the disease and that those patients with the best prognosis had the highest levels. Tempering enthusiasm about the significance of ceruloplasmin and the increased oxidase activity of schizophrenic blood is the fact that the Akerfeldt test is highly dependent upon blood ascorbic acid.[67] When schizophrenic patients are placed upon adequate diets with vitamin supplements, their Akerfeldt test cannot be distinguished from the normal. In addition, Goodman and his associates,[68] utilizing a more precise immunologic technique, discovered that ceruloplasmin in schizophrenia was neither higher nor lower than that of normal controls and other patients with a variety of physical diseases.

Neurophysiologic Factors

Abnormalities in the electroencephalogram of schizophrenic patients, ranging from slow dysrhythmia to high frequency low amplitude records, have been described by a number of investigators,[69-73] and are said to be found in 20 to 80 per cent of all patients. However, other studies show no more deviations in the EEG than would be expected in a normal population. Depth electrode studies by Heath[76] and Jacobsen[77] purport to show paroxysmal spiking, particularly in the septal area of the brain of the schizophrenic patient. Whether these findings represent artifact of electrode placement remains to be determined. Rodin and his co-investigators[78] described a group of patients with schizophrenic symptoms who manifested temporal lobe spiking on their electroencephalograms. They suggested that a new diagnostic entity, temporal lobe schizophrenia, be established. The discovery of the reticular activating system by Magoun[79-81] led to a rash of premature conclusions that this exceedingly important area concerned with the maintenance of alertness, attention, and the control of afferent inflow was somehow involved in the schizophrenic deficit. Nothing experimentally conclusive has been demonstrated.

The Model Psychoses and Sensory Isolation

The experimental production of schizophrenic-like symptoms, primarily with psychotomimetic drugs, has drawn increasing interest. DeJong initially used this technique to produce catatonia in animals using bulbocapnine in 1929.[82] Mescaline[83] has long been known to cause a severe delerioid psychosis with a resemblance to schizophrenic-like phenomena. Research in this area received considerable impetus with the discovery of lysergic acid diethylamide (LSD 25) which in microgamma amounts produces a thought disorder associated with visual hallucinations of fantastic quality.[84-88]

That a compound chemically similar to many naturally occurring amines could in physiologic amounts cause severe perceptual disturbances led to speculation that inborn errors of the metabolism of these amines (adrenalin, serotonin, and noradrenalin) might be related to schizophrenia. Comparisons were made between schizophrenia and a known disease of amine metabolism, phenylpyruvic oligophrenia; Hoffer and his group[89-91] proposed that in the schizophrenic patient adrenalin was degraded to the hallucinogen adrenochrome. They have reported high levels of adrenochrome in the serum of schizophrenic patients but this has not been substantiated by other investigators.[92]

Because LSD blocks the effects of serotonin on peripheral receptors, Wooley and Shaw[93] theorized that its ability to produce psychosis was dependent upon serotonin inhibition. Brom-LSD, however, has the same effect upon serotonin without its psychotomimetic qualities, raising a serious question about the validity of this hypothesis.[94] Studies of the effect of LSD on certain psychologic variables, carbohydrate metabolism, and synaptic conduction have failed to demonstrate its mechanism of action.[95] Crucial to the problem would be the understanding of how the psychotomimetic drugs either facilitate or block interoceptive or exteroceptive sensory input.

Recently a new schizophrenomimetic agent was discovered which seemingly has bridged the gap between drugs and sensory isolation as producers of experimental psychopathology. Sernyl 1 (1 phenyl cyclohexital) piperidine monohydrochloride was initially used as an anesthetic by Greifenstein until he, together with Meyer,[96] observed a high incidence of postoperative psychoses. It was studied as a psychotogen by Luby and his associates[42] and was considered to reproduce the primary symptoms of the schizophrenic process. Its mechanism of action has also remained obscure, yet it seems likely that the blocking of sensory input, particularly that associated with proprioception, has an important relationship to its psychotomimetic properties.

Sensory isolation as a procedure for inducing disturbances in thinking and emotionality was developed by the McGill group.[97] Alterations in body image, inability to sustain directed thinking, fluctuations in the experiencing of time and space, the evocation of affectively-charged personal experiences, visual and auditory hallucinations, and slowing of the electroencephalogram occurred in subjects under sensory isolation for twenty-four to forty-eight hours. Lilly[41] described a profound psychotic-like experience when he remained submerged in water at body temperature for a two and one-half-hour period. Patients with bulbar polio placed in respirators have been observed to have hallucinations of a particularly compelling nature involving kinesthetic, visual, and auditory modalities.[98,99] These patients demonstrate the importance of kinesthetic input, emphasized even more by the fact that the effects of sensory isolation can be dispelled more quickly with movement than anything else.

The Toxic Substance

The search for the toxic substance, postulated by Bleuler and Kraepelin, has been renewed during the past ten years after falling into disrepute with the development of psychodynamic concepts of schizophrenia. The Tulane group has reported the extraction from the serum of schizophrenic patients a substance, presumably protein, which they call "taraxein.[100,101]" When injected into volunteer controls, a psychotic response ensues, characterized by difficulty in thinking and depersonalization. When given to monkeys with electrodes implanted in the septal area, they show behavior resembling catatonia and develop slow waves in their EEG's. It should be mentioned that other centers in this country have not been able to duplicate this work,[102,103] although Swedish[104] groups have reported experimental success with taraxein. Rather than being a simple protein it would seem that taraxein is a mixture of as-yet-unrefined globulin components. Winters and Flataker,[105] using whole serum, found that rope-climbing rats lost their agility when injected intraperitoneally with serum from schizophrenic patients.

Plants and tissue cultures have been incubated with this material in an attempt to assay growth inhibition or acceleration. The results again have been controversial.[106] Luby and co-workers[107] so far have been

unable to demonstrate differences between schizophrenic blood and normal blood using several standard plant bio-assay tests exceedingly sensitive to the presence of indolic compounds. Federoff,[108] using cultures from strain L mouse cells, reported toxicity highest with the serum of schizophrenic patients as opposed to the serum of normal subjects and surgical patients. Similarly, Martin and Kost[109] demonstrated marked effects of schizophrenic serum on tissue cultures of HeLa cells, even suggesting that their technique might be used as a diagnostic test. Unusual indolic compounds have been discovered in the urine of schizophrenic patients with paper chromatography; McGeer and his associates[110,111] reported a number of unusual amines not found in normal urine. Cafruny and Domino[112] showed a decreased incidence of a hydroxyindole-like material in the urine of schizophrenic patients. The importance of diet in such studies cannot be overestimated, as evidenced by Kety's[113] observation that these so-called abnormal indoles are related to coffee ingestion.

Related to the toxic theory is the promising work of Bogoch[114] on spinal fluid neuraminic acid, a compound derived from macromolecular brain ganglioside. Schizophrenic adults were reported to have the same levels of neuraminic acid as seven-year-old children, strongly suggesting a biochemical maturational deficit. The function of neuraminic acid is unknown but it may be involved in the maintenance of the blood-brain barrier. Thus metabolites, which in normal subjects never pass this barrier, may find easier access to the schizophrenic brain and thus produce symptoms.

Summary

There are almost as many theories about the etiology of schizophrenia as there are patients. They range from the exclusively psychodynamic to the metabolic-genetic, with vigorous adherents of both. A unitary concept of the disease is being replaced by theoretic constructs which consider schizophrenia to be a "final common pathway" syndrome with multiple etiologies comparable in medicine to cardiac or renal decompensation. Sociocultural investigations have demonstrated comparable incidence rates for schizophrenia in primitive and Western societies. Research during the past decade has emphasized the role of pathologic family interaction in the development of schizophrenic symptoms. In particular, the transmission of irrationality from parents to children and the chaotic organization of the schizophrenogenic family have been reported. The twin studies strongly suggest a genetic mode of transmission with the exact mechanism as yet to be defined. Recent years have seen renewed interest in biochemical and neurophysiologic concepts of mental disease. The sensitivity of the schizophrenic patient to stress and his inability to adaptively increase his energy output has drawn increasing attention to intermediary carborydrate metabolism. A defect in the mobilization of adenosine triphosphate and in the control of the hexose-monophosphate shunt may occur. The attempts to isolate toxic substances such as "taraxein" or adrenochrome continue in many centers with conflicting and variable results. Study of the metabolism of the catechol amines has yet to show differences between schizophrenic and normal subjects.

It should be emphasized that the various hypotheses about the etiology of schizophrenia are not necessarily incompatible with one another. For example, severe interpersonal stress undoubtedly has many significant associated metabolic consequences. The period in the patient's life at which the stress occurs may also be critical. One cannot deny the genetic potentiality in each organism to master and adapt to stress. This may be reflected in both overt behavior and in biochemical processes. The grave error in research in schizophrenia may lie in an unwillingness to conceptualize research approaches as involving interrelations among many frames of reference—whether they be psychodynamic, psychologic, or biologic in nature.

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Education

"I grow more intolerant of fools as the years roll on. If I had a son, I was saying, I would take him from school at the age of fourteen, not a moment later, and put him for two years in a commercial house. Wake him up; make an English citizen of him. Teach him how to deal with men as men, to write a straightforward business letter, manage his own money and gain some respect for those industrial movements which control the world. Next, two years in some wilder part of the world, where his own countrymen and equals by birth are settled under primitive conditions, and have formed their rough codes of society. The intercourse with such people would be a capital invested for life. The next two years should be spent in the great towns of Europe, in order to remove awkwardness of manner, prejudices of race and feeling, and to get the outward forms of a European citizen. All this would sharpen his wits, give him more interests in life, more keys to knowledge. It would widen his horizon. Then, and not a minute sooner, to the University, where he would go not as a child, but a man capable of enjoying its real advantages, attend lectures with profit, acquire manners instead of mannerisms and a university tone instead of a university taint."—Norman Douglas in *"South Wind."*

Indications for the Use of Tranquilizer Drugs In Emotional Disturbances of Childhood

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THE PAST DECADE may well be recorded in history as *the tranquilizer era.* Without question, the widespread use of this group of drugs testifies to the impact they have had both on general medical practice and on psychiatry. There is no area anywhere in medicine where so much seems to be going on at one time, and where finding one's direction in establishing a rationale for treatment in the midst of the multitude of new drugs and barrage of literature becomes increasingly difficult. By this time, it has become increasingly apparent that these drugs do not constitute a panacea for the psychiatric ills of the human race. However, they have been demonstrated to be a major weapon in our therapeutic armamentarium in dealing with psychiatric disturbances both in adults and in children.

The place of the tranquilizer drugs in the treatment of emotional disturbances of childhood seems at this point much less well defined than it does with adults. In general, the tranquilizers have been less helpful with children than with adults. An evaluation of results with children is difficult because of the multitude of drugs that are currently available and the conflicting reports in various studies. So many of the reports have been uncontrolled or have been based on heterogenous diagnostic or symptomatic groups so that comparison of one drug to another is very difficult. Great variation in what constitutes an active dose for a child has further complicated things. More often it has become necessary to begin a child on moderate doses of a drug, increase it until undesirable side effects appear and then reduce the dosage in order to determine the optimum therapeutic level.

General Considerations

The intelligent treatment of childhood emotional disturbances with tranquilizing drugs requires that the physician be clearly aware of what he is treating and what the drug will be able to do, as well as what it cannot do. The physician's judgment is open to question when he prescribes such medication for symptomatic relief without having first thoroughly studied both the physical and emotional problems that the youngster presents and has at least some understanding of what is causing them. In almost every instance, the tranquilizers should be an adjunct to, and in no way a substitute for, psychotherapeutic help and needed environmental changes. It seems grossly unfair to give a child or his parents the idea that the child will need to take a drug of this sort for the rest of his life or to prescribe such with the idea that one always can hide the symptoms long enough for the emotional difficulty to be outgrown spontaneously.

It should be kept in mind that the tranquilizers are useful in most instances only when aimed at symptoms that are indicative of psychomotor acceleration, that is, emotional states and states of physical activity characterized by an increased rate of activity. This will mean then that, among the emotional disturbances, they can be of help in children with anxiety and, to a lesser degree, in children presenting problems of aggressive outbursts. They are not helpful, and, in fact, can be harmful when there is a state characterized by diminished or impaired emotional responsiveness such as withdrawal or depression. Likewise, considering changes in motility, these drugs will be effective in conditions characterized by hyperactivity or hypermotility and are not helpful where there is diminished, retarded, or impaired motor activity.

Clinical Situations

There are five groups of psychiatric disorders where the symptoms of anxiety or increased psychomotor activity are apt to be prominent. These include: (1) stress reactions, (2) anxiousness, (3) aggressive reactions, (4) psychosis, and (5) organic brain damage. In each of these categories (which are based more on symptomatology than diagnosis) drug therapy may be of great value at some time during their management.

The first of these, the stress reactions, are known in psychiatry by the rather elaborate term of transient

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situational personality disturbances. They refer to symptoms developed by a child who has a reasonably intact personality structure. Symptoms appear in response to some immediate situation or stress in the environment with the assumption that with the removal of this stress, equilibrium will be restored and the symptoms will subside. In many common everyday situations, such as a move from one house to another, a change of schools, an acute illness, or an admission to the hospital (particularly when this is for a surgical procedure), one is likely to encounter some sort of symptoms in the child, reflecting his anxiety over the new situation. Most of these symptoms are so mild as to really require no medication. Many of these events are planned for, such as admission to the hospital for a tonsillectomy, and on these occasions one should rely primarily on proper emotional preparation of the child and use tranquilizers only as an adjunct. A study illustrating the point was done recently at the Children's Psychiatric Hospital (at the University of Michigan).[4] The usefulness of chlorpromazine in preparing emotionally distubed children for a frightening and perhaps painful dental procedure was evaluated. The conclusion of this study was that the development of a friendly working relationship between the child and the dentist was more effective than the medication could be. A brief clinical example may illustrate a situation where drugs were useful.

Illustrative Case

Seen in psychiatric consultation was a ten-year-old boy who had been admitted to the hospital for skin grafting of burned areas on his legs. The boy's history indicated a reasonably good emotional adjustment and he had undergone his surgery without undue levels of anxiety. During the postoperative period which involved painful changes of dressing, the boy became increasingly apprehensive, was restless, had difficulty sleeping, and became progressively more belligerent toward members of the nursing staff—with this culminating in his biting a nurse when she came to change his dressing. After some discussion, the consultant was able to indicate to the boy the relationship of the aggressive behavior to his fears about the painful changes of dressing, and convey an understanding and acceptance of such fears. The one interview with the psychiatrist and the use of one of the tranquilizers were helpful in allaying the boy's anxiety and enabling him to cooperate better for the necessary medical treatment.

A second type of situation where these drugs may be indicated are those that could be characterized simply by the term "anxious child." There are rather significant differences in the way that children and adults handle their anxieties. This difference is one that sometimes even physicians who work with children a great deal will tend to overlook because they are thinking in terms of their own frame of reference. While many children can and do experience the subjective feeling of discomfort which adults have called anxiety, more often the child is not going to sit quietly with this uncomfortable feeling and just worry about it. Instead he will do something in response to it—this something involving hyperactivity or aggressive behavior. The child with anxiety that is severe may give one the impression that he is about to fly apart in all directions at once. He may be constantly on the go, moving from place to place, unable to settle down to anything very long, showing difficulty in concentration and usually showing an increased rate of speaking, called pressure of speech. His thoughts may jump from idea to idea quite rapidly also. Other children are so anxious that they are shy about saying much, especially in unfamiliar surroundings. Such children with extreme anxiety show their fearfulness in other ways. The very things they talk about are apt to be heavily colored by real or imagined fearful situations, such as a great concern with natural occurrences like thunderstorms or tornados. The parents, or perhaps the child himself, will report unusual and excessive fears of animals, high places and the like, and very often there is a history of nightmares or night terrors. The child seems to be aware of his anxiety and one sees evidences of attempts at control. The child will give the impression of struggling to maintain himself as if he felt he were sitting on a keg of gunpowder.

Many of these children are excellent candidates for psychiatric treatment and should be referred for such help if their symptoms do not respond quickly to other measures. The tranquilizer drugs become important here as they are able to interrupt the vicious cycle which is often set up. Many anxious, restless, neurotic children are overly sensitive to criticism and failure. Unable to function adequately because of their anxiety level, they find themselves (with increasing frequency) failing to handle school or play situations, all of this leading to more anxiety. Tranquilizer drugs may give the child better control over his tensions and enable him to do and feel better with his playmates, his schoolwork and his family—all things that will increase his gratifications and encourage his confidence in himself. If the physician's evaluation points to this kind of problem, he may well begin a trial of one of the tranquilizers in an effort to break up the vicious cycle. This would be

in addition to other therapeutic efforts, such as attempting to modify harmful parental attitudes. If the child shows no response after several weeks, the problem is probably more severe, and psychiatric referral should be considered.

Children with chronic aggressive reactions usually show manifestations of disturbance more intermittently. There are periodic outbursts of temper tantrums, sassiness, rebelliousness, or outbursts of explosive or impulsive behavior. The child with this kind of difficulty usually has a history of such behavior from his pre-school years and, in evaluating the home, one is impressed that the parents in their management of the child during his early years, have been either too demanding and punitive, too inconsistent, or have failed to make reasonable demands on the child. In talking with the child with this sort of difficulty, one often gets the impression that he seems to be "fighting back" at what he sees as unrealistic demands placed upon him. This sort of child is more apt to blame others for his difficulty and show poor tolerance for any sort of frustration. Other children within this group, however, particularly those who have had little in the way of demands and firm controls in their formative years, behave in a completely infantile and omnipotent manner, reacting quickly to any frustration and showing the attitude that the world is supposed to jump at their beck and call.

The tranquilizers are of limited value with these chronic aggressive children who are more deeply disturbed than those in the two groups mentioned above. Such drugs may be helpful in an emergency situation by quieting an agitated, destructive child. Inasmuch as anxiety is often a part of the child's symptom picture, a trial like that outlined for the anxious child is in order. Generally, the more uncomfortable the child, the more likely will he respond to such a program. Many of these children, unfortunately, do not respond to treatment approaches available to the family physician and will require referral.

Tranquilizer drugs have shown perhaps the greatest usefulness as an adjunct to the treatment of psychosis in childhood, particularly in the early stages. These children may be seen as acute emergencies presenting extreme agitation, fearfulness, and destructiveness. The response of these children to one of the phenothiazines, administered parenterally, is often dramatic and enables the child to be responsive to further psychotherapeutic and environmental help. A less acutely disturbed psychotic child frequently presents a picture much like that described above for the anxious child. Children in the early stages of a psychotic process are apt to go one of two ways. That is, they tend to either slowly withdraw into excessive fantasy, becoming quieter, more unobtrusive children, or they try to handle the impending break with reality by a number of neurotic mechanisms which have the character and appearance of those described for the anxious child. In the early stages, it is only the observation of the peculiar and disorganized kind of thinking that makes a diagnosis of psychosis possible. These children whose hold on reality is tenuous, and whose struggle to maintain control of their impulses requires tremendous effort on their part are often greatly helped in this endeavor with one of the tranquilizer drugs. Because of the chronic nature of their problems, they may require medication for a longer period of time.

Children with some types of organic brain damage show extreme degrees of increased motor activity, distractability, inability to concentrate, and impulsive behavior. While anxiety is a frequent part of the symptom picture in these children, it usually does not have the overwhelming and fearful quality that it does in the anxious or psychotic child. More often the child responds to it rather than feels it subjectively. Certain children in this group show improved behavior when on anti-convulsant medication. With brain-damaged children, the tranquilizers are of use as an adjunct to an over-all treatment plan that would emphasize, primarily, changes in the child's environment which would provide him more structure, stability, and freedom from excessive stimulation. In this way, the child is helped to develop his own controls and better compensate for his neurologic deficits.

Summary

This paper has tried to present a rationale for the use of tranquilizer drugs in the emotional disturbances of childhood based on, first, an accurate appraisal of the physical, emotional, and environmental factors producing disturbance in the child; and second, an appreciation of the symptomatic action of tranquilizer drugs. Several groups of clinical situations are described with the place of tranquilizers in the over-all treatment plan indicated.

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Some Problems in the Treatment of Emotionally Disturbed Children

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AS PHYSICIANS, we are accustomed to approaching a problem by attempting to define and delineate the problem. Simultaneously we become acquainted with the person with the problem as well as their environmental setting. After exploring the roots of the problem in the past, we formulate a diagnosis and speculate about the prognosis. The foregoing is then used to outline a treatment plan.

Let us approach some of the problems inherent in the treatment of emotionally disturbed children in much the same way today. We shall begin by delineating the problems into (1) individual clinical ones, and (2) community problems.

As clinicians we invariably have the responsibility of deciding whether therapeutic intervention is indicated. We may be dealing with a predictable transient phase of development that would be indicative of psychopathology only in an older individual. For example, we expect two-year-old children to be somewhat phobic, but are concerned about the same symptom in a nine-year-old. Mild compulsive behavior in a nine-year-old might be of no more concern than phobias in a two-year-old.

We have to be able to adjust to the difference between the reasonable adult who may request assistance and the child who rarely wants help when he in fact needs it. We are most frequently consulted about emotionally disturbed children who upset those about them while feeling no discomfort themselves. Much less often do we have an opportunity to help the "too good" inhibited youngster who in reality may be more ill than the troublesome acting-out child.

If treatment is indicated, we have to choose between in-patient and out-patient therapy. The bulk of the out-patient treatment in Michigan is done in the eighteen child guidance clinics and their branches.* Most of the in-patient therapy is done in the six state hospitals**, the Lafayette Clinic in Detroit, Hawthorne Center at Northville, and the Children's Psychiatric Hospital at the University of Michigan Medical Center.

Regardless of the type of treatment offered the youngster, we generally have to help his family also. In fact, there are instances in which our efforts should be concentrated on the environment:

Illustrative Cases

John, at nine years of age, was the youngest of four children. His father was the chief of police in their community. His mother was a successful and contented homemaker. It was three months after John had started fourth grade that the visiting teacher at his school consulted me about John's classroom behavior. She related that towards the end of the first week of school John started to clown. This had progressed to the point where his immature and bizarre antics precluded any academic work for him and made it most difficult for his classmates. This was in marked contrast to his previously excellent adjustment. The visiting teacher was appropriately impressed by the fact that his behavior outside of his home-room remained acceptable. He continued to do well with his family, Cub Scouts, playmates and in school at gym, music and manual arts. The visiting teacher summarized by saying that he was wild only in the presence of his class-room teacher, who was described as a seasoned and respected teacher.

In a subsequent interview with John's teacher, I was struck by her interest in John's family. She had known and liked his older siblings even though they had always been in "the other fourth grade." She was pleased when John was assigned to her class because they were "such a wonderful family." Much later in the interview she inquired if John's behavior was not typical for the children of policemen. In drawing her out about this, she told me that her own father had been a one-man police force in her home

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This paper is based on remarks delivered at the Annual Dinner Meetings of the Grand Rapids Child Guidance Clinic, January 27, 1958, Muskegon Area Child Guidance Clinic February 5, 1958, and the Battle Creek Child Guidance Clinic, February 4, 1959.

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*Battle Creek Child Guidance Clinic, Central Michigan Child Guidance Clinic, Children's Center of Wayne County, Flint Child Guidance Clinic, Grand Rapids Child Guidance Clinic, Huron Valley Child Guidance Clinic, Jackson Child Guidance Clinic, Kalamazoo Child Guidance Clinic, Lansing Child Guidance Clinic, Macomb Child Guidance Clinic, Muskegon Area Child Guidance Clinic, Northwest Michigan Child Guidance Clinic, Oakland County Child Guidance Clinic, Petoskey Child Guidance Clinic, Port Huron Child Guidance Clinic, Saginaw Valley Child Guidance Clinic, Twin City Child Guidance Clinic, and Upper Peninsula Child Guidance Clinic.

**Kalamazoo State Hospital, Newberry State Hospital, Northville State Hospital, Pontiac State Hospital, Traverse City State Hospital, and Ypsilanti State Hospital.

town. She and her siblings felt their father's position precluded anything short of exemplary behavior. She recalled a persistent desire to rebel, the gratification of which she had successfully suppressed.

I tentatively suggested that it might be possible that she was *unconsciously* encouraging John's misbehavior and vicariously enjoying it. I asked her not to pass immediate judgement on this possibility. I proposed that she give it some thought in the interim before another interview.

At our next interview she greeted me eagerly, stating that she had examined my suggestion from every possible angle. She was sure it did not apply to her and John because since our last interview his behavior had changed so dramatically for the better.

George, aged seven started awakening several times a night shortly after his father, a soldier, was transferred. Initially their new physician felt that the move was upsetting and that his sleep would once again become restful after the passage of time. When this did not prove to be so after several months, the physician discovered that George, his three-year-old sister and one-year-old brother were all sharing their new apartment's only bedroom with their parents. At their previous home each child had an individual bedroom. The physician suggested that the parents sleep in the living room and the children share the bedroom. This environmental alteration resulted in relief of George's sleep problem.

In contrast to these two examples of environmental manipulation, most psychotherapy enables the child through the vehicle of *self*-understanding to further develop his potential. This is accomplished by liberating for more constructive use psychic energy that is expended in defending against fantasied dangers. The youngster is generally unaware of these unreal dangers, as well as his fear of them and his defenses against them. With the awareness that psychotherapy encourages, he can evaluate the usefulness of his defensive maneuvers and relinquish the unnecessary symptomatic ones. The medium of communication is the child's play as well as his verbalizations. The child gains support from the consistent understanding and accepting relationship with the therapist. (The Big Brother organization is an example of relationship therapy in pure culture. It is indicated for boys who are deprived of an opportunity to relate to an adult male.) Additionally, there are varying degrees of remedial educational guidance and opportunities for emotional release in most therapeutic undertakings. In a brief survey, it is impossible to detail an example of the usual sort of psychotherapy. Therefore, I will limit myself to an example of "release therapy" wherein the aim is exclusively the freeing of pent-up emotions:

Jane was a happy, well nourished three-year-old only child when her mother was confined for delivery. Although Jane was well cared for by her grandmother during her mother's absence, her appetite became finicky. After mother and the new baby came home, Jane ate less and less until her intake diminished to a few sips of milk a day. Concurrently, she manifested absolutely no signs of sibling rivalry. As her food intake had decreased, her sweetness to the baby and consideration for her mother had increased.

In view of her age and the acute traumatic onset of the anorexia, I decided to utilize release therapy. Instead of inviting Jane to play with toys of her choice as one would ordinarily do in psychotherapy, I directed her to play with specific toys, which I had previously selected. They were a little girl doll, a baby doll, mother doll, father doll, baby bottle, toy crib, and toy table and chair set as if for a meal. I had some cookies placed on the side.

Initially she did little more than look at the toys. Later she fingered them tentatively. In subsequent visits her play became increasingly animated. During the fourth visit she had the little girl doll attack the baby doll and smash the bottle. In the next visit the little girl doll also attacked the mother. While doing this, Jane reached over for a cookie. Her intake at home increased concurrent with this emotional release. Her behavior at home became less docile.

The magnitude of the broader community problems are best defined by recalling some statistics so well known that I doubt that we need recite them. No matter which we would select they would invariably underscore some frustrating experiences we have all shared. The availability of treatment for emotionally disturbed youngsters does not begin to meet the demand for help.

This overlaps with the second part of our approach —the person with the problem. Too often an unfortunate search for the culprit responsible for the so-called "mess in mental health" takes place at this time. We have all heard governors accused of failing to provide for adequate mental health budgets. Some people prefer to incriminate legislators for refusing to appropriate sufficient funds. Others say the general populace would refuse to tolerate the increase in taxes. There are others who retort that even if there were sufficient funds there wouldn't be enough trained personnel to utilize them. Thus, it's the medical schools, other psychiatric training centers, schools of social work, university departments of psychology, schools of nursing, ad infinitum, who are delinquent in their responsibilities. Some look elsewhere and state that it is impossible to adjust to a society such as ours. I have even heard it said that the difficulty is the result of too many people letting too many things bother them and thereby needing psychiatric help.

By this time I imagine we all feel a kinship with the confusion felt by the mother who was asked by

her son at the end of an active day, "Mommy, was I a good boy today?" His mother, not wishing to interfere with his self-concept while, desperately wanting to do something about his mischievousness retorted, "You're never a bad boy—you're always a good boy —although you did an awful lot of bad things today." He was not satisfied: "Mommy, wouldn't you like it better if I were always a bad boy who did only good things instead of always being a good boy who did only bad things?"

The next item on our agenda is the environmental setting of the person and his problem. For the sake of brevity, I shall neglect the vital question of the emotional climate of the individual home and the community-at-large. One aspect of the environmental setting that is germane to every community faced with the problem of the excess of demand over supply of treatment for emotionally disturbed children, is how to attract and keep professional help after the positions have been created and the funds allotted. I am afraid that mental health professionals often seem like difficult prima donnas. We seem to require a stimulating atmosphere where we can enjoy an interchange with people who share our individual scientific problems. Too few of us are pioneers. Lacking that, we seem to want more money so that an apparently anomalous situation is created. The community that is about to pioneer in such an endeavor has to be willing to pay higher salaries than the community in which such services are well established and the citizenery is convinced of their value. More important than confreres or income is the need to feel that we are accomplishing something with our skills. The majority of us are more content doing a lot of good for fewer patients than doing something inadequate for large numbers. The community has to tolerate this peculiarity, if you will, and also protect us from the pressure of their overwhelming needs until we develop more efficient techniques.

This would seem like an appropriate time to explore the roots of the problem in the past. We do not have to go back very far because the treatment of emotionally disturbed children is relatively new. The custodial care of mentally defective children was the principal endeavor of child psychiatry until recently. Several historic events around the turn of the century presaged the change. In our individual work with children the most important was the development of *dynamic* psychiatry. Sigmund Freud in Vienna and Adolf Meyer in this country, contributed a great impetus to the development of child psychiatry by their appreciation of the influence of the early years of life on future emotional development. Around the same time, Binet and Simon in Paris developed psychometric tests in an effort to estimate innate intellectual endowment. Just before the turn of the century, juvenile courts were established so that children who broke the law, were not dealt with in the same manner as adult criminals. Dr. William Healey, a pioneering psychiatrist and psychoanalyst, applied dynamic psychiatric principles in his work with Chicago's delinquent children. It was not until the third decade of the twentieth century that the first child guidance clinic, as we now think of them, was established in Boston.

Shortly after the turn of the century, a law student named Clifford Beers was hospitalized for emotional illness. After recovery he devoted his energetic brilliance to the betterment of emotional health. His autobiographic "A Mind that Found Itself" created quite an impact. He founded the organization that is now called The National Association for Mental Health.

Just this past year, subspecialty certification in child psychiatry was established by The American Board of Psychiatry and Neurology, Inc. The requirements for examination are four years of residency training followed by two years of experience in child psychiatry, and certification in psychiatry.

Diagnostically, we do have problems, but we do not have a "mess" that we have to blame some one for. Our situation is similar to that of the rest of medicine. We are younger. The first physicians were created, in part, by the demands of the ill. The subsequent development of specialists seems to be the result of a comparable impetus. The mentally ill, especially the young, are less effective in expressing their needs than any other group of patients. Thus, the response to these needs has been delayed.

Prognostically, statistics make it look as if our children's emotional problems are increasing. Most observers feel that this is largely a consequence of increasing diagnostic acumen. I do not say this to lull us into complacency. On the contrary, I take issue with the elder statesman who felt reassured when an archeologic excavation unearthed an ancient tablet demonstrating that many centuries ago people were equally as worried as our parents were and as we are; that the future is gravely imperiled because of the shortcomings of the younger generation. When we consider the technologic advances that have accrued through the ages, should we not be concerned over

this lack of progress in human relations? Perhaps the persistence of the worry about the younger generation is symptomatic of a chronic deficiency in constructive communication between adults and youth.

Our last task is the formulation of a treatment plan. Clearly, therapeutic intervention is indicated. We need to train more mental health professionals. We need to sharpen our tools—constantly improving our techniques of treating emotional problems and developing the facilities required for modern treatment. We must increase and refine our efforts at prevention. In this realm, the family physician's role is paramount. It might be nihilistically argued that we cannot hope to prevent what we are still clumsy in treating. This should not deter the physician, for there are a host of diseases that we know how to prevent far better than we know how to treat.

Lastly, we should not destructively waste our energies looking for someone to blame for the manifold problems inherent in the treatment of emotionally disturbed children. Mental health is everyone's affair.

Health Careers Program Initiated by Council

Much effort has been expended by the staff and members of the Health Careers Committee. Thousands of Michigan students have seen health career films, obtained health career booklets and heard inspiring talks by members of the various professions represented on the Committee as well as by staff personnel.

Repeatedly the students and counselors have urged us to try to develop a scholarship or loan program for students interested in going into a health career. Surveys show that more than 50 per cent of the talented students in high school are not going beyond because of the lack of funds.

An all-out campaign to be known as a "Bridge to a Health Career" will be announced in the near future. This program will be an all-out drive through women's auxiliaries and other organizations in every Michigan community to see that an adequate supply of youngsters are informed of opportunities in a health career and that those students that need financial assistance to continue their education are given the assistance and cooperation deemed essential to attain their vocation.

Many students and counselors recommended that it would be well to try to enlighten students in Junior high schools about the health career opportunities.

An illustrated health career booklet on "The Health Team in Pharmacy" was developed during the past few months in cooperation with and under the guidance of the Careers in Pharmacy Committee of the Michigan State Pharmaceutical Association. Parke, Davis & Company and Upjohn Company were so impressed with the possibilities of this booklet that they agreed to make a joint grant sufficient to print 20,000 booklets. They will be distributed to students and vocational counselors in all schools. Don Meredith of the Upjohn Company, George Bender of Parke, Davis & Company, and John Butts, Executive Secretary of the Michigan State Pharmaceutical Association will help develop the material.

The Michigan State Dental Association and the Michigan State Industrial Nurses Association have also authorized the Council to proceed on similar booklets. Eventually the Health Careers Committee hopes to be able to have all health careers covered.—JOHN A. DOHERTY.

Psychosomatic Compliance in an Infant

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THIS PAPER details the origin and fate of a dermatologic lesion in a male infant; from its inception at the age of six months until its resolution at the age of nine months, subsequent to the successful resolution of unconscious emotional conflicts by his mother.

The mother, an articulate, well-educated woman, came for psychotherapy complaining of a wide spectrum of symptoms, the most significant (in relationship to the subject of this paper) being her intense anxiety, feelings of inadequacy in all spheres of activity, and a compulsive need to be superior to others. Her first child, a girl, was three years old at the time of her son's birth. The mother had fantasied before his birth that her second child would be a girl, and had not seriously considered any other outcome. When, in the delivery room, she had learned of the newly delivered child's sex, she had "burst into bitter tears;"—a mystery to herself and of considerable alarm to the obstetrician. He had questioned her as to their cause but she had been aware of no thoughts which could have been responsible for her behavior. After approximately fifteen minutes of inconsolable weeping she had been administered a sedative and she went to sleep. Both she and her husband had been "delighted to have a boy," though she privately entertained some reservations, believing that "a boy will be too difficult to handle—I won't know what to do with him." She named her son after her youngest brother of whom she was especially fond.

The mother was the oldest in a sibship of three, her two brothers being three and six years younger than she. Her father had wanted his first child to be a boy and had not been hesitant in reminding her of his disappointment during her childhood. She had been far from neglected during childhood but her brothers were clearly her parents' favorites.

She related how, as a child of three, she had "out of curiosity" interrupted her mother while the latter was breast-feeding her younger brother. Her mother had scolded her for this interference and had sent her from the room. Never again did she intrude or ask questions about the scene she had witnessed. She gave an account of mutual genital fondling on one occasion with her next younger brother when she was six and he three years of age, but had no recall of the impression this experience made upon her.

Just prior to seeking psychotherapeutic help, an exhibitionist had exposed himself to her—to which event she had experienced simultaneous fascination and revulsion. Several consultations with her family physician having proved insufficient to resolve this disturbing inconsistency of feeling; she asked him to refer her to a psychiatrist.

Of her family constellation she once said, "I always have the feeling that the oldest one should have been a boy. If things had just been different. An older brother would have brought home his friends and it would have been so much easier to get a man." (Prior to marriage she had been preoccupied with the fear of spinsterhood.)

When her son was six months old he developed a "rash." For the following two months this subject came up increasingly in her associations in psychotherapy and she began to blame herself for his skin lesion with increasing anxiety concerning it. When I suggested it might be helpful if more detailed information about her son's skin lesion and his relationship to her were provided, she became quite angry and declared that she wasn't to be "put off." She was sure she was somehow responsible for the eczema but this was her therapy and not her *brother's.*

The infant's "eczema" had first been observed by her pediatrician during a routine physical examination when her son was six months old. The lesion had been described by him as an eczema involving a small area on the flexor surface of the left arm at the bend of the elbow. During the following two months it became progressively larger and eliptical in outline; the long axis coinciding with the skin crease. Though the mother referred to the lesion as "weeping" it was in reality only moist with minimal crusting and had never required a dressing. The lesion was so placed that when the arm was flexed on the forearm there was nearly perfect coaptation.

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It varied considerably in color, sometimes appearing pink and at others a fiery red. These changes in appearance were related to various events, some of which will be described in detail. In addition, a generalized rash had developed which involved all areas of the body except the face. These lesions were rather different than the antecubital one, being irregular in outline and varying in distribution and size, macular, often confluent with scaling, at times becoming fiery red and at others fading completely. There were no subjective symptoms insofar as could be determined. The intensity of these lesions seemed to increase during and after meals and "After I have thrown him on the wool rug in the living room."

Without *conscious* intent to misinform, she led me to believe that her pediatrician had suggested an elimination diet to determine the basis of the child's presumed "allergy." She had substituted skimmed milk for whole milk and had eliminated all solid foods from his diet except boiled rice. One by one various foods were to be added and the response noted. Both skin lesions had, subsequent to this rigorous dietary limitation, become increasingly severe. It was at this point that I had suggested the possible value of more detail about her relationship with her son.

It was her custom during meals to seat all of her family at the table, her son excepted. As they ate he was provided with a clear view of the dining table activities. He would, contrary to all expectation, not protest his exclusion, but sit silently as close to the restraining bars of the play pen as he could, staring at the scene before him. After her husband and daughter completed their meal and left the kitchen, the patient would bring her son to the table and devote herself entirely to feeding him. She remarked on how eagerly he ate when finally it came his turn. She followed this order of eating at the table because she found it convenient and did not wish to be interrupted at her own meal by tending to the needs of her son. She related that she was always the first to have finished and had always been intensely annoyed at any interruption while she was eating. By her adroit management of the meal situation, any interruptions which might have arisen had been virtually eliminated.

It was usual that the skin lesions became fiery red during this period of the day, which observation had led her to assume an allergic etiology. Part of her desperation was the fact that not only did the skin lesions not clear up under this hypoallergic regime but had become considerably more severe. She had been emphatic that her son learn to eat as an adult and had been unsuccessfully trying to wean him from the bottle. In contrast to having breast-fed her daughter for several months, she had not even attempted this with her son. When he awoke crying at night she assumed that this was because he was wet and was puzzled when this proved not to be the cause of his distress. She would walk the floor with him trying to comfort him. This was sometimes effective in putting him back to sleep but when his crying would persist or when he would awake a second time she would prepare a bottle for him, leaving him crying in his crib while she did so. She was offered an interpretation to the effect that her behavior represented an acting-out of unconscious wishes to deprive her younger brother of the maternal breast from which she had been displaced in her infancy. I then discovered that the elimination diet had actually been her own idea. She had suggested this regimen to her pediatrician who had concurred and had, in addition, prescribed special soaps, lotions, and ointments to be applied to the rash.

Upon my recommendation, she subsequently brought her son to the table at meal times including him as part of the family. After the child's first experience with this arrangement, the widespread macular lesions faded and in a week all trace of them had disappeared. The patient spontaneously stopped trying to find a "responsible allergen." She fed him at the table henceforth and decided not to rush weaning but to let him decide for himself when he was ready to give up the bottle entirely. When he awoke crying at night she carried him with her while she prepared a bottle. He began sleeping through the entire night after she had done this several times.

The lesion on the left arm, however, remained, apparently stabilized and chronic, varying only in degree of erythema. The patient had used and continued to use a variety of hypo-allergenic products in his daily care. In the course of trying to obtain a more accurate picture of the nature of the remaining antecubital lesion, I asked what it felt like when she touched it. She revealed that she had never touched it and moreover, had carefully avoided doing so. When pressed further for descriptive material she said, "When I hold up his arm I look at it *covetously*." She insisted this was not a slip of the tongue. She knew the actual definition of the term but had also believed that it was synonymous with "surreptitiously" and had employed it in the latter sense.

When changing her son's diapers she had always encouraged her daughter's attendance as a means of "keeping an eye on her." The little girl took up a position at the foot of the bed where she could clearly view her infant brother's genitals, doing so with obvious interest and fascination.

The patient had once heard a story of a little girl who had cut off her younger brother's penis with a pair of scissors. The mother, in her rush to drive the mutilated boy to a doctor to have his penis sewn on, had run over and killed the little girl who had been responsible for the whole affair. The patient was always scrupulously careful of scissors, never permitted her daughter to play with them, and kept the one pair she possessed on a high shelf even she could not reach without standing on a chair.

After an interpretation was offered that she had coveted her brother's penis and had wished to obtain one for herself by castrating him, she remarked that the physical appearance of the "weeping" lesion on the left arm had charateristics clearly similar to the female genitalia. She understood the reason for her scrupulous avoidance of tactile contact with the antecubital lesion after recalling her mother's prohibition against masturbation. Through identification with her daughter, whose name was the same as her own, she had been vicariously gratifying voyeuristic wishes originally directed toward all the males in the family of her childhood.

Prior to the time of the development of the arm lesion, her son had "fussed" so much when she had attempted to diaper him in the customary supine position that she had finally permitted him to have his way and lie on his stomach. It was only when he lay in this position that she could change his diapers without his protest. Occasionally, when she was busy with other duties, her husband would change the child's diapers. At my request she inquired and thereby learned that with his father her son permitted diapering in the conventional position without any difficulty.

Immediately after the foregoing interpretation the child no longer protested the supine diapering position, nor, according to the patient, showed any subsequent interest in lying prone during this procedure. The arm lesion promptly subsided and vanished by the time the child was nine months old.

The fantasy that her second child would be a girl becomes comprehensible when we recognize the repressed wish to deprive her younger brother of his penis. The "bitter tears" which came when she learned of the birth of a son were, I suggest, further expression of the affects she experienced upon the discovery that unlike her brother, she did not have a penis. Her fantasy: "a boy will be too difficult to handle, I won't know what to do with him" further reflects her repressed infantile feelings toward him. The memory of interrupting her mother when the latter was breast-feeding him gives some indication of her envy of her brother's position in life and, perhaps as well, her wish to replace him at her mother's breast. The mutual genital fondling with her brother during childhood augmented her penis-envy and fostered her wish, already present at the oral level, to appropriate for herself that which he possessed and she did not.

She sought therapy when the continued repression of her penis-envy had been threatened by the sight of the exposed genitals of an exhibitionist. The contradictory feelings of fascination and revulsion which she experienced on this occasion are possibly identical with those she experienced when she discovered her brother had a penis, though this must remain a speculation. Her infantile wish to castrate her brother and her fantasy of the punishment for such a wish seem barely disguised in the recalled story of a little girl who cuts off her brother's penis and is killed by her mother as the latter rushes to the doctor to have it replaced. Her phobic attitude about scissors seems too evident to require further comment.

What has been briefly discussed to this point is but the background for the more significant factors yet to be dealt with. The specific response, both behaviorally and psychosomatically, of this infant to these psychic determinants present in his mother must now be considered. Her conscious feelings toward her youngest brother were very warm and loving, one indication of which was her naming her son after him. Other than commenting upon the extraordinary "good looks" of the oldest of her brothers, she had nothing to say of him. It is not difficult to conceive how this had come about. His "good looks" refer to his penis and her lack of conscious interest in him as an adult corresponded to her infantile wish to remove him from the scene. The clinical description of the dermatologic lesion is not very satisfactory. The term "eczema" is probably very loosely applied and certainly the patient's description is not that of "eczema." In any event, these objective dermatologic changes in response to the mother's unconscious attitudes is the significant issue. This child could not talk and it is not clear how much he could understand. At best his knowledge of language must have been very rudimentary. The patient herself vaguely

suspected her responsibility in the production of these lesions. Her special dietary measures served to ward off recognition of this responsibility as well as to further her unconscious desire to deprive her brother, represented by her son, of milk. True to the principle of over-determinism this procedure served as a kind of self-imposed retribution for this unacceptable wish, for she had to prepare double meals, constantly guard her baby against contact with alleged allergens, and suffer a great increase in anxiety. The taunting of the child at meal time, forcing him to watch while she ate, was in revenge for what she felt her youngest brother had inflicted on her when she observed him nursing at the breast. Her lifelong characteristic of anger at being disturbed during a meal is a further manifestation of her infantile wish to remain at her mother's breast without being interrupted by the advent of a younger sibling. That these skin lesions were not due to allergy might be indicated by the history of their occurrence and disappearance. There was an apparent connection between them and the status of the unconscious conflicts in my patient. The specificity of the diapering position the infant assumed with the mother but not with the father is very interesting. I think the mother can be believed when she said she tried to have the child lie on his back and that he protested so greatly that she permitted him to roll on his stomach because this was the only position in which he would lie quietly. There is, nonetheless, the possibility that she unconsciously conspired with him in this symptomatic act, a view which is supported by her evident voyeuristic conflicts which might be expected to be defended against by avoiding as much as possible the sight of a penis.

The evidence presented suggests the following psychodynamic formulations: the generalized skin rash occurred in response to the mother's unconscious wish to starve her son, the representative of her younger brother. The antecubital lesion appeared in response to her castration and penis-envy impulses, likewise originally directed toward her brother (and probably her father as well). Though the same organ, the skin, was subject to this psychosomatic compliance, the clinical appearance of the two lesions was distinctly different and each disappeared independently of the other in specific relationship to the resolution of specific unconscious conflicts.

The generalized dermatologic lesion never reappeared, entirely in keeping with the trend of the patient's associations which hereafter indicated resolution of the oral conflicts related to infantile rivalry with her brothers. The antecubital lesion appeared once again at a later time in the patient's therapy in relationship to other determinants but as in the first instance, in relationship to penis-envy. The specific infantile fantasy which she recalled, was one where her younger brother would get burned by boiling water and that the subsequent scarring would reduce his genitalia in size to match her own. Her recognition of this castration wish toward her brother and its function as an infantile solution to penis-envy eventuated in the immediate disappearance of her son's antecubital lesion. The child is, at this writing, three years old and it remains to be seen if this pattern of psychosomatic compliance will be repeated in the future.

It is fundamental that mental conflict in one person cannot produce symptoms in another and one must not assume that the conflicts of this child's mother produced the psychosomatic symptom described. Rather, the child reacted in the way he did because of the circumstances in which he found himself. Included in those circumstances, and most importantly, was the emotional state of the mother and particularly her unconscious conflicts. When some of the circumstances of this child's life changed, that is—when his mother resolved her emotional conflicts, the child then responded differently than he had before these changes came about. Symptoms are defensive in nature and from the mother we have learned precisely what this infant was defending himself against. This case report represents an instance where somatic symptoms reflected in a surprisingly specific way the unconscious conflicts of a parent, and arose against the dangers the child experienced from this threatening segment of his environment.

A case of psychosomatic compliance in an infant to the unconscious neurotic conflicts in his mother is reported. Two separate and distinct dermatologic lesions were the infant's somatic response to unconscious conflicts at two separate levels of psychosexual development. They appeared and disappeared in precise relationship to the content of these conflicts which they mirrored.

MSMS prides itself that no member has ever been refused his "day in court"—an opportunity to be heard, regardless of subject.

Some Factors Affecting Early Child Development

Their Relation to Disturbances in Children in the First Two Years

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A CHILD'S developmental history includes the sequences of his motor, social, and personality behavior, as he grows. His growth in all these areas occurs within, and is conditioned by, the "climate" provided by the people with whom he forms his significant social relationships—primarily his parents, or their surrogates, and any others in close and continued relationship with him. It follows that the child's development can be understood only in relation to the climate in which it has occurred. For a normal and constructive development to take place, the child's social climate must provide an atmosphere in which (1) the child's interest is aroused, (2) physical warmth and care are provided, and (3) a balance is provided between limitation of and support for appropriate independent behaviors as the child becomes capable of them.

It is obvious that the child's development is inextricably interwoven with his family life, and that disturbances affecting family relationships, particularly any which undermine the ability of mother and father to carry their roles adequately, must have an adverse effect on the child.

Much might be said about social changes which are creating new problems in family life. Suffice it to say here that we are seeing more children, at a younger age, with greater degrees of disturbances. An increasing proportion of this group is made up of children with chronic handicapping illness, mental defect, or physical anomaly. Prior to the development of antibiotics and other revolutionary life-saving techniques, many of these children would have died. They now survive, but the stresses surrounding their lives, particularly the associated failures in adequate mothering, seem to be causing increasingly severe emotional disturbances. At the same time, medical and psychologic research is revealing more clearly the crucial importance of the first year of life, and of the interaction between a child and his mother during this period. It is quite possible that the developmental processes whereby a human infant seeks contact with his mother and becomes attached to her are the most critical processes of early development. Increasing evidence points to the possibility that permanent damage to the future ability of a child to love and to learn may occur during the first year of his life.

Understanding the complications of childhood emotional disorder imposes an increasing responsibility on the pediatrician or generalist but the importance of assuming this responsibility becomes clear when we note that such knowledge bears upon almost the entire medical care of children today. The following list of childhood disturbances, grouped according to time of appearance, reveals the scope of the pediatrician's task:

I. *Developmental Disturbances of the First Year*
[Usually classified in clinics as: (1) Failure to thrive, (2) Fever of undetermined origin, (3) Feeding problems, (4) Nutritional problems. May be subdivided by etiology.]
- A. Deviation secondary to conditions of:
  1. Infectious or metabolic disease
  2. Prematurity
  3. Congenital defect with and without surgical remedy
- B. Primary tension disturbances
  1. Instability and excessive crying (colic)
  2. Sleep-pattern disturbance
  3. Gastrointestinal problem of poor intake, rumination, vomiting, excessive stooling, and constipation
  4. Eczema and non-specific "allergies"
- C. Primary deprivation syndromes
  1. General developmental failure
  2. Inanition; prone to easy infection
  3. Prolonged monotonous movements
  4. Apathy and lack of object relation

II. *Disturbances of Nine to Eighteen Months*
- A. Failure of feeding sequence: inability to wean, remaining on liquid food, anorexia
- B. Oral tension disturbance; excessive thumb or hand sucking, pica

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C. Failure of muscular sequences: does not stand, crawl, or try to walk
D. Failure of social relationship: little smiling reaction, inability to play, failure of beginning vocalization and speech
E. Reactions of irritability and withdrawal: rocking, head-banging, aversion to being touched and comforted
F. Anal tension disturbance: constipation and negativistic withholding, diarrhea and beginning colitis
G. Respiratory: breath-holding to point of syncope, beginning functional asthma

It will be observed that between 1½ years and 2½ years we begin to think of a child's responses much more in social and behavioral terms than in biologic terms. Thus irritability manifestations of crying, whining, and bizarre or hyperactive behavior are generally perceived as having "purpose," namely, "he does it to attract attention," or, "he does it to annoy." During this period it is usual that strong attempts are made by the parents to introduce social discipline. Efforts are made to curb destructive or dangerous behavior and to have the child accept bowel and bladder training. Likewise, there are increasing pressures exerted on a child to speak sensibly, to act in a friendly way toward others and to give up outmoded infantile traits. Thus we may see, clinically, continuations of previous disturbed patterns, but with the child having more capability for action that affects others, and with his behavior complicated by his reaction to the pressures mentioned. In this age range, for instance, frank unmodified infantile traits are possible, and usually mean a state of greater disturbance. More frequently, infantile patterns come to be used selectively and negatively against parental pressures.

III. *Disturbances: Eighteen Months to Two and One-half Years*
(Relatively Minor or Unmodified Pattern from Previous Age or Regression to Such Below:)
A. Failure to develop in motor behavior, speech behavior
B. Infantile irritable behavior as hyperactive with impulsive movement
C. Feeding disturbance—selective anorexia, excessive thumb-sucking or pica (lead paint, hair, industrial toxins)
D. Withdrawal from strangers and other children
E. Specific irritability such as sleep disturbance, head-banging, self-injury, wandering reactions such as getting lost; accident prone
F. Constipation and unwillingness to be trained
G. Development of fears

IV. *Major Psychosomatic Conditions*
A. Milk anemia
B. Severe asthma or eczema
C. Severe constipation to encopresis, pseudo Hirschsprungs disease
D. Severe ulcerative colitis

V. *Major Disturbances of Behavior*
A. Phobic behavior
B. Psychosis
C. Ingestion of noxious substances or development of accident prone pattern
D. Tantrum behavior to the point of self-injury: trauma or physiologic injury

It will be noted that this age group shows for the first time a group of important major conditions, corresponding to severe adult mental states. Such conditions as infantile psychosis, major psychosomatic conditions, and accident-prone conditions may become either irreversible patterns, or directly incompatible with life.

Let us now look more closely at some factors affecting the social climate of the infant's life, which may lead to any of the above-listed types of reaction and disturbance. Obviously, the child's mother carries the most important relationship with the child during his first two years. As previously mentioned, anything which undermines her ability to carry her role as mother, and to provide the constructive social climate necessary for the child's development, must have an adverse effect on the child.

To give adequate mothering, a woman needs to feel comfortable in *other* roles important to her, as well as in that of mother. In general, she must be relatively happy as a female, as a daughter of her own parents (but a grown-up daughter, able to be a separate person), and as a wife. A general satisfaction with her own life enables her to give to her baby and to respond to his needs in a realistic and supportive fashion. Any deep dissatisfaction or unhappiness tends to lead the mother to misuse of the child for *her* needs. She does not see and respond to him as he is, but as her own overwhelming needs make him seem to her. The child then reacts to this pressure, or neglect, or unsuitable treatment of whatever form, with patterns of behavior which such treatment calls forth, but which are not the normal behavior of a healthy child. Usually the mother is not satisfied with the child's reactions, and another phase of destructive interaction begins as she tries to cope with the results of the damage she has already unwittingly caused. It is obviously superficial to "blame" the mother for the child's troubles. She is a human being, responding to her own life situation, as the child is to his. In general, she will be a good mother if she is able to be. The pediatrician's task is to seek to understand the source of her inadequacy and to see that the situation is remedied. Fortunately, in many cases, the physician's support at a crucial point in the mother's experience with her

baby is enough to enable her to overcome the fears and problems which might otherwise undermine her ability to function as a good mother for this child. In cases of older children, where destructive interaction is already established, the physician may be able to help the parents see their relationship to their child (and probably to each other) in a different light, so that the destructive treatment of the child is given up. If this is beyond the scope of the pediatrician, referral of parents and child for psychiatric therapy becomes necessary. Such referral is much more likely to be carried through when the physician gives full support to the parents for such a move.

From experience with many mothers and disturbed children, we have come to recognize three basic types of situations which result in "mothering conflict"—that is, situations in which the mother's own problems and needs cause her to handle her baby in terms of her own disturbed feelings, and prevent her from responding appropriately to the baby's basic needs, and thus from providing a social climate in which the child can develop normally:

1. Situations in which the child is seen by the mother as a substitute for a person lost to her—a man, her own mother, or someone else of comparable significance in her life. Such loss may be recent, through death or separation; or may be a sense of loss persisting from the mother's childhood, because of an unresolved separation conflict with her own mother or father. In the latter case, the mother will have symptoms of loneliness, dependency conflicts, and fantasy restitutions.

In this situation, the mother moves in *too* closely and constantly over-stimulates the child because of her own overwhelming emotional needs. Reactions in the child are usually complications in the first six months, of vomiting and diarrhea, beginning hyperactivity, startle of persistent nature, and sleeping problems.

2. Situations in which the birth of this child is associated in the mother's mind with feelings of being lost, overwhelmed by her own inadequacy or unworthiness, or mistreated by another. Basically, these women are in conflict regarding their own female sexuality. Having a baby, and undertaking the great responsibility of caring for it, emphasizes the predicament in which they feel themselves caught. Following are several examples of situations of this type:

•Pregnancy is felt as a shameful state, showing weakness, inability to live up to mother's ideals, or the result of being forced by superior male strength.

•Pregnancy, child-bearing and rearing represent acceptance of mother's negative predictions; of becoming "ordinary," as opposed to "special;" of lost opportunities for self-realization and creative reward as an individual; the beginning of becoming a drudge, an inferior housewife; of becoming dependent on a man for support. In general, this mother feels herself caught in a situation which represents loss, defeat, and unreward.

•Pregnancy, child-bearing and rearing precipitate the problems of a pseudo-mature woman. These new responsibilities arouse the mother's underlying feelings of inability, stupidity, inadequacy. She is threatened with becoming disorganized and exposed as inadequate, in a situation in which marriage and social support have been achieved by some appearance of maturity or status.

•Conception and pregnancy are initiated out of defiance to mother and to social authority; the assumption of care of the infant is in conflict with the essentially hostile, aggressive meaning of having the child.

•Conception, pregnancy and child-rearing were undertaken with assumed social support, as from mother of the subject and from her husband, and ordinarily would increase the dependent claim on these relationships ("I'm doing it for you"). But conditions suddenly change—her mother becomes otherwise preoccupied, her husband is unfaithful, there are financial reverses, and so forth. In general, a state of loss is brought about by a contingency which surrounds continuance of the responsibility with a feeling of loss, rather than one of gain.

•A particular pregnancy is accompanied by a sudden awareness of a problem—such as feeling that suddenly one really has more children than one can care for; the amount of work is really greater than one person can accomplish; one really does have to *care* for children as well as to bear them; one must choose between abstinence, contraception or too many pregnancies; one planned to have one's children while young and then go places, but it has not worked out that way; it was believed that if she was a good girl, all would be taken care of, but the thought of how much work is involved suddenly reveals the illusory nature of that belief.

In general, this is on the order of the straw that breaks the camel's back: the reality of child care becomes infinitely more burdening and a source of loss, not only because of the current experience, but because of re-evaluation of the past—"Too many kids—too much work—for what?"

•A situation in which feelings are similar to those just described, but they are more clearly in relation to a real emergency or sudden increase in responsibility—such as illness of one's husband, trouble with another child, unexpected changes such as having to move, a multiple pregnancy. The result is the same as above—a feeling of loss in connection with having this baby: too much to do, too little support, too many kids, too much burden, given these circumstances.

Particularly in the situations described under the last two categories (and often in relation to the others described), the mother comes to perceive herself as permanently damaged physically by having had this child; her health is never the same, she has many operations, she sustained permanent laceration and change in pelvic organs. For these mothers, the physical experience of labor and delivery may epitomize the precepitation of a change in feeling about child-bearing and child-rearing, from one of reward to one of inevitable cost and loss.

3. Situations in which the mother feels she has lost, or will lose, her child because of real or imaginary defect in the child

- as a consequence of wishes or content of thought during pregnancy, having to do with abortion or rejection of the role;
- as a consequence of damage to mothering capacity through incestuous wishes, previous abortions, criminal abortions, etc.;
- as a consequence of damage presumed to affect the fetus because of pregnancy diseases—pyelitis, toxemia, bleeding, general health;
- as a consequence of trauma, falls, "not taking care of oneself";
- as a consequence of physical appearance of the child, not necessarily defective, but perceived as defectiveness or unpleasantness by the mother;
- actual defect or health state of the child threatens loss through the child's inability to function normally, and perhaps through death.

Mothers in this third category usually tend to withdraw as much as possible from direct contact with the child—to protect themselves from the guilt, pain, and sense of loss which the child arouses in them. They attempt to cheer themselves with exaggerated emphasis on all normal developments in the child, and yet are not reassured. Their babies often have uncomplicated early courses; and the mothers are genuinely vague about the actual times at which new functions appeared before eight to twelve months of age. These mothers habitually describe their children as showing precocious brightness, alertness, quick development of functions, and later for self care; or if actual defect is present, they gloss it over. Also, when there is real defect, the mother may attempt to deny it by denying the real identity of this child, and making him a substitute object for prior losses, such as for feelings of having been abandoned by her own parents. In such a case, the mother's behavior becomes too close, as in category I.

The problem in all three categories is the *distortion* of the relationship between mother and child. The mother is unable to perceive accurately the needs of the child, and to encourage and support normal development in the child. The *need* and *readiness* of the *child* does not sufficiently determine that which the mother *supports* and that which she *opposes*, especially in respect to dependence-independence behaviors. If a child is not helped to find a balance (and a constantly changing balance, as he grows) between his need to be dependent and his need to take over increasing self-direction, his behavior at any point may precipitate conflict. His mother may find the dependence she fostered becoming irksome; or the behavior which his mother supported is not acceptable or rewarding in relation to any of the other human beings with whom the child has increasing contact.

Basically, every mother needs to have her sense of success and self-worth reinforced by her ability to gratify her infant's needs, and by seeing her baby develop. If her own problems, of whatever nature (and the situations listed by categories do not imply that any mother may be "classified"—most mothers show a mixture of different characteristics) distort her handling of her child and trouble ensues, she is painfully aware of her failure. Such pain may be too great to be acknowledged, and may be hidden under defense mechanisms such as withdrawal, anger, or rigid discipline and control. The basic feeling is guilt, and the pediatrician must be aware that in dealing with mothers in almost all of these situations, he will be dealing with pervasive guilt formation and a variety of defenses against the pain involved.

(An exception may be seen in those cases in which the life of the child is threatened in the neonatal period. In such cases, exploratory and aggressive behavior in the child is prohibited by both mother and family. The need to avoid further disturbance in the mother predominates in the family outlook; the limitation in the child's development which follows is seldom viewed as a problem by the family for this reason.

Mothers whose infants show symptoms of gastrointestinal distress, crying and irritability, sleep disturbances, et cetera, during the first six months are pervasively guilty. Some, just under the level of consciousness, are aware that they are using the infant too much for their purposes, rather than his. Others are aware that they have involved the infant in their unhappiness, but feel a mixture of guilt and powerlessness to change.

For the most part, however, the guilt is too painful to the ego for admissibility, and we know of its existence only through the mother's defensive behavior. Projection and displacement are common. For example, the infant may be perceived (erronenously) as defective in some function, and/or the physician may be blamed for poor diagnosis and for being unhelpful.

There is another basic factor which may act to distort the mother's treatment of her child. A woman, during pregnancy and the early period of neonatal care, is in a state of intense maturational flux herself. She has no life experience comparable to this except, inversely as it were, her own experience as a child, with *her* mother. The constant finding in all pregnancy studies is that the social tie to the own mother is deeply involved *in what is felt toward the infant* and *from the infant*. Thus, when a woman lacks a sense of support and approval from her mother, the infant is reacted to as though he were her mother. That is, if the infant's behavior is negative, the mother feels as though he were accusing or rejecting her. David Levy found, for instance, that 80 per cent of a group of women with first babies brought to be nursed in a hospital setting reacted with anger toward a sleepy baby who would not nurse. Only the highest 20 per cent on Levy's mothering scale were able to be sufficiently patient and tolerant to stay with the need to arouse the infant. This is direct evidence for the belief that states of bias in maternal attitudes may act from the beginning to obscure the actual state of the infant and to distort the meaning of behavior, that it, these infants were sleepy, they were not behaving critically or hatefully toward their mothers.

Thus we see how in many instances some combination of a mother's past experience, together with current events, may make her highly vulnerable to what is or seems like a negative response from her infant, and a sense of failure in infant care ensues. The more upset the mother is, the more dulled becomes her capacity to interpret accurately even the simplest changes in the infant's physical state. Thus, some women misperceive almost every change in the infant and will get into enough difficulty initially, with the result that a rising crisis is perceived and more intensive defensive maneuvers are required to cope with it. It is in this context that support patterns are quite meaningful, since it appears that for the majority of women who get into any difficulty with their infants, there is some degree of regression as a reaction to the stress; they are realistically more dependent and require help because they are less able to exercise judgment and patience. Whatever their maturity level, they tend to become more immature. In such a situation, support may make the difference as of night and day between two types of subsequent course of events. With support, the mother may be quickly enabled to gain (or regain) sufficient confidence and feeling of adequacy so that her fears subside, she can "see straight" and carry on a healthy relationship with her child. Without support, her regression may proceed through various states of inability to cope, to dissociative, and extreme withdrawal reactions. If there are other caretakers around, the infant may thrive; if there are not, the results may be quickly catastrophic, as some of these panic reactions do not even permit a mother to tell when her baby is in a moribund state.

Of all the defenses which a mother may use to cover up her pain and guilt when she feels unsuccessful and unrewarded in her relationship with her baby, the two which appear to cause the greatest damage and destructive interaction are overt anger, and rigidly controlled and disciplined hostility. In situations where the mother is driven to the use of such defenses, it appears that she has been left without any effective support for her own needs. There may actually have been no one to help her; or her behavior may have alienated those who might have helped; or she herself could not trust those who might have helped her. The ability of the infant to make the mother feel guilty may then become involved in an interaction in which maternal affects such as anger, hate, and rage, are directed at the infant in relation to caretaking procedures. When such feelings are being released continuously in infant care, where the mother feels deeply threatened and where supports are lacking or where life circumstances tend to bind the mother unremittingly to this stimulus from the infant, we can look for a development of more severe symptoms in the child. The mother may come to feel the child so accusing and threatening that she has impulses to destroy it, and may temporarily abandon the child in defense against her impulse. The two major fears of children, those of being killed or injured, and those of being abandoned, actually correspond to such attempts of the mother to cope with feelings of being overwhelmed.

We seldom get much of a direct glimpse of these feelings in action, because by their very nature they take place in solitude, in the isolation of the mother-infant combination. We do see many evidences of them, however, in self-destructive syndromes in children, and in the effects of these syndromes on any

adult. In all of the early severe psychosomatic disorders we find some evidence of the severities of this type of interaction. The asthmatic child, the eczematous child, the child with colitis, with anorexia, and the child who swallows all kinds of foreign bodies and who has accidents—are frequently found to have been exposed at an early age to feelings of hate and destruction, which they "play back" subsequently to the parent and in other relationships. Then the parent is threatened anew, by these echoes of previous states of disturbed interaction.

It is worth noting here that these powerful and dreaded feelings which the infant can arouse in the mother are contagious both for fathers and for physicians. These men may themselves be brought, by the influence of the mother's feelings, to acts of panic or of disengagement, to save themselves from being overwhelmed. The mothers demand some kind of identification with themselves in their driven state of fear and hate; the father, physician, or others in close association fear being involved in these feelings, and certainly fear being the recipient of them! Husbands are threatened by being made to feel they are not helpful, not good, not able to support—in fact, that they are not masculine. Physicians are threatened by being required to prove their competency under conditions of assured failure. It is little wonder that they tend to escape if possible, and if not, to submit to giving the mother almost anything she wants regardless of what is the objective state of affairs with the child.

(Other types of parental coping mechanisms, such as phobias, obsessional mechanisms, and psychotic withdrawal enter into infant care in various ways. Most severe personality disorders of chronic type in women appear simply to result in the child's being cared for by someone else—which has the virtue of improved prognosis for the child, in any event.)

Thus we see that once a destructive pattern of interaction is established between a child and his mother, all of the other relationships in the family are forced to support it. Also, because of the mother's "shameful," painful feelings around the basic causes of the disturbed reaction patterns, these causes are "sealed over." It is much easier to ascribe the child's difficulty to organic causes (which are generally secondary to the emotional problem), or to other "external" occurrences which seem outside of family control. An accurate developmental history for a child, under these circumstances, is almost impossible to obtain. The mother cannot give an unbiased history for the child —even to begin to attempt to do so would mean some breaking down of her strongly-built defenses. And the father, were he to attempt it, would not only be attacked by the mother, but would wreck the relationship he has built up with her through assuming the role she demanded of him. We understand broadly that the child is being sacrificed for the sake of the mother's mental health. Even if it were possible to break through the family defenses for the sake of the child, such procedure is by no means assured of success, since the condition in the child may have become irreversible. If this is not the case, it is evident that the child would need to be separated from his parents for a lengthy period of treatment, and it is unlikely that the parents will agree to such separation, or maintain support of it. Often little can be done, until the child breaks completely and so involves the community, or until the child dies.

There is another form of destructive parent-child interaction which is less destructive (that is, the child is less acutely disturbed than in the situation described above), but which is equally impenetrable. These are the situations in which a child's problem behavior is especially adapted to his relation with his mother, and while it causes trouble in school and elsewhere where the child is "on his own," such troubles are less distressing to the mother than would be any change in her child's behavior. In some instances, this begins in an original fear of loss of the child. Whatever the origin, the child is conditioned to behave in a way which protects the mother against feelings of loss, or failure or guilt, which she could not tolerate, and this behavior-system has the father's support. In most such cases, there is no problem in obtaining a developmental history. The problem arises at the point of greater engagement in a treatment process—it becomes clear that the family has no willingness to bring about any basic changes in their interrelationships, and treatment is impossible.

There are a number of permutations to this type of adaptive state in family interaction. In many, the child's symptoms, as mentioned above, are not as distressing as would be any alteration in the *status quo* of the parental relationship, that is, the child's behavior expresses something which is "wrong" in the mother's life, and "wrong" or unsatisfying in her relationship with her husband. The parents can live with each other because the child carries the problem.

An experimental and structured separation may be used as a test of the rigidity or movability of the parental defensive system. Even in cases where parents would not ordinarily assent, this may be brought

about by the necessary admission of the child to a hospital for treatment. At such times, the whole family pattern is temporarily disorganized and the alert pediatrician may find a tremendous opportunity for intervention in an otherwise impenetrable case, and for having the possibility of change in the family pattern tested out. This may be done during the child's initial period of hospitalization in collaboration with the child guidance clinic, but a problem then arises of referral to a suitable agency for follow-up treatment. As described above, in the most difficult cases voluntary treatment is not likely to be carried out. We must therefor consider the possibility of bringing in some form of social authority, if effective action is to be taken.

It is one thing to generalize from past experience about the types of situations which cause conflict in the mothering role; and to generalize about the types of childhood disturbances which may occur as a result of the interference with, or lack of support for, the normal developmental sequences in a child. It is another thing to begin with the disturbed child and try to reconstruct his history, so that we can understand sufficiently the origin of his problem and secure guides for treatment. As indicated above, the more difficult the problem, the less likely are the parents to be able to give an accurate history of the mother-child relationship. The child, of course, can give us little direct help. However, if we can generalize to some extent about what happens to any child as a result of inadequate mothering during the crucial first years, we may then have a foundation, to which we may add what we can infer from the child's symptoms and from what information *is* available from the family.

Let us then take another look at what happens in the child's early social climate to make him more vulnerable to physical and emotional disturbances, and to distort his normal development. If we examine the implications of the three basic types of mothering conflict cited, we must conclude that all have the basic potentiality of rendering the tie to the mother of less value protectively, for the anxiety provoked in the child by newness, strangeness, and states of change.

In the situation where the mother withdraws from close contact, and where the closest tie is with some other person, it is unlikely that this will be a steady contact for the child. Instead we usually find *inconsistency* of the presence of the mother-figure during the critical period of identification and of introjection of the protective functions of this relationship. It is true that during the first four to six months there is little object specificity—one face may elicit the same response as another from the infant. However, we know from the work of the child development group at the National Institute of Health that an infant is gradually building up cues which are specific to the sounds made by the mother as well as to her appearance. It seems quite likely that an infant can be cued to several significant adults as protective objects. But problems result when these protective objects are *not* steady. If they are not there, and the child is left to experience various states of stress-stimulus in the presence of a less protective object, we are likely to have a vulnerable child who is inherently more prone to episodes of disorganization under stress.

In the situation where the mother withdraws and there are *no* interested caretakers, we find obvious environmental retardation and failure to thrive. When caretakers are available, but employed on other jobs so that they may not be present to protect the child in moments of stress, we may predict the probability that this will result in some defect in the stress-coping mechanism of the child. (There are implications in this for placement during the first two years of life.) The simplest coping device that a child may have under these circumstances is avoidance of the new or of any situation anticipated as stressful. There is always the chance, however, that some double bind may occur which can result in catastrophic disorganization.

The point is frequently made in the conclusions of studies in child development that while, on one hand, parental attitudes are extremely important as determinants of direction taken by the child in his development, there is on the other, no simple cause and effect relationship between any particular parental behavior and a specific outcome of personality in the child.

The one factor which emerges most often is that of the timing and appropriateness of parental behavior during particular phases of child development. It is this aspect of parent-child interaction which points most surely to the reason why specific advice to parents is seldom of any enduring benefit. We can tell parents how to behave toward their children but we cannot tell them how to respond selectively to the manifest needs of the child at a given time. One gets the impression that some of the most popular books on child care have succeeded because they helped the parents to feel more "understood" rather than because they provided a prescription for behavior at all times and under all conditions.

The task of the physician is to help parents do the

right thing at the right time and failing this, to recognize when the parent and child are in serious trouble with each other.

Physicians are, in effect, dealing with parent rearing as well as child rearing. The value of the physician's role in ameliorating parent-child disturbance arises first from his understanding of where the two are consistently getting into trouble and then placing the weight of his support in the right place at the right time.

The important thing about developmental histories is the supportive aspect of the doctor-parent relationship in which the information is collected. It has been our experience that when the relationship between physician and family is good, it will withstand many errors in knowledge and technique. It might equally be said that all of the conditions discussed in this paper may be fully recognized by an attending physician, but will be of no value because of deficiences in the working relationship between parent and physician.

Physicians, like mothers, frequently wish to have blanket instructions to cover all possible difficulties which may come to color parental child-rearing behavior. This presentation is not intended to make such a provision. It is rather that of providing a background of information as a reference frame which will enable the physician to place himself in a position to exert a more constructive influence upon child rearing.

The increasing number of children being added each year to the population and the changes in the causes of serious illness in children are posing a new array of important problems to be faced by the practitioner.

As may be inferred from the range of possibilities mentioned earlier, the physician's role may be the only natural support available to some mothers during periods which may be critical for the future of the child.

The primary purpose of this presentation is to call attention to the importance of this growing area of medical responsibility.

Wayne Postgraduate Courses

Ten postgraduate training courses will be offered in the fall semester by the department of psychiatry of Wayne State University College of Medicine. Most of these courses are co-sponsored by the Wayne County Chapter of the Michigan Academy of General Practice.

Registration for these courses may be made at Office of the Registrar, 1401 Rivard, Detroit 7.

The courses will include Psychiatric Aspects of Medical Practice, Child Psychiatry and the Family Physician, Psychiatric Aspects of Obstetrics and Gynecology, Psychiatric Aspects of Dentistry, Pastoral Psychiatry, Psychotherapy in Medical Practice, Psychiatric Aspects of Internal Medicine—Case Presentations, Psychiatric Aspects of Surgery—Case Presentations, Psychiatric Aspects of Pediatrics—Case Presentations, Some Aspects of Applied Psychiatry.

For further information about any of these courses, call Henry Krystal, M.D., director of postgraduate training, Wayne State University.

Plea for Age

Urging an overhaul on our approach to the problems of our older citizens, Frederick Swartz, M.D., Lansing, urged that we cease coining new words to apply to older people and invite them back to live with the rest of us. Dr. Swartz addressed the 48th annual meeting of the American Podiatry Association meeting in Chicago in August.

"Study has shown that there are no problems which are peculiar to the aging. With perhaps the possible exception of retirement. For example, in 1954, an average year, statistics showed that nationwide some 95 children died of coronary diseases—diseases usually thought of as affecting the aging. And coronary disease appears throughout the statistical table in every five-year age group from birth to five years on up.

In offering a few words of advice in dealing with the subject, Doctor Swartz suggested that we forget our efforts to pigeon-hole everyone by age group and simply recognize them as living people like everyone else.

"To the Glory That Was Greece and the Grandeur That Was Rome . . ."

This quotation from Edgar Allen Poe is used to symbolize an unfortunate trend in the attitude of the lay public toward its medical profession in this era of materialism in scientific development. The decrease in respect and high regard accorded the medical profession until recent years must be the source of concern to the thoughtful physician. Too often one picks up a magazine or newspaper and finds an article written in such a way as to imply discredit to the medical profession.

Only a few years ago, the practice of medicine was the goal of many of the highly qualified high school and college students. Even as recently as fifteen years ago, the applications for medical school were many times the number who could be accepted. A high percentage of these applicants were "A" students. Approximately a third of the students now applying for admission to medical school have an all-"A" record. The physician and his profession appear to have obscured much of their glory; fields such as physics and chemistry have been attracting the highly qualified student.

It is well worthwhile to examine possible reasons for this change in mental attitude towards the Doctor of Medicine. Recently a lay article appeared listing a number of different and important civic programs which organized medicine had opposed and yet which eventually came to be established. In general these programs are now supported by organized medicine and are considered to be of value to the American public. The article, obviously biased, nevertheless emphasized the fact that organized medicine had opposed these developments on the basis of the danger of "socialized medicine." The significance in terms of public relations of this kind of implication of medical shortsightedness is particularly important, perhaps more so than most of us realize. It is vitally important that each physician make a careful personal evaluation and then appoint himself as a committee of one to improve in every way possible public relations with the medical profession. This type of activity should be undertaken both in professional and social activities. Each health and welfare problem proposed to us should be given careful consideration.

Three "public relations" factors would seem to be of particular significance for every physician:

1. The tendency to place a greater degree of emphasis on "scientific" medicine than perhaps is warranted, with a relative diminution in emotional investment of ourselves in our patients. The danger of falling into this trap is increased by some of the facilities at hand for our use, the "miracledrugs" such as the anti-infective agents and the psychotropic drugs. Important developments in surgery (i.e., cardiac surgery) and the extraordinary progress in the

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technical aspect of medicine are important factors which may obscure every patient's need for his *personal* physician.

2. Another "trap" is the trend toward a "more businesslike" approach to the practice of medicine. Reported high incomes of physicians and comments about insistence upon high fees reported in the press, cannot but be significant factors in the undesirable change in attitude toward the medical profession. The kindly, sympathetic, understanding support given by most physicians to their patients in financial difficulty rarely makes news, but the isolated situation makes headlines.

3. The third factor which is of considerable sifinificance is that which might be called medical sibling rivalry. This issue of THE JOURNAL is devoted to the problem of mental illness and health. During the past few years, psychiatry has broadened and developed into a field that includes the study of normal personality, the pathological aspects of human relations and the maintenance of mental health. Specialties in the field of psychiatry such as child psychiatry, industrial psychiatry, forensic psychiatry, have developed rapidly. Thus medical co-ordination and co-operation with other professions such as psychology and social work have become increasingly important. The extraordinarily rapid development in the field of psychiatry must of necessity be in direct relation to public need, but like all rapidly developing fields, psychiatry has been involved with significant growing pains. *The psychiatrist needs the intelligent co-operation and support of the physician in other fields just as other physicians need the help of psychiatrists.* For the needed benefit of all medicine the strong and often expressed opposition to the dynamic concepts of psychiatry must be cleared up as quickly as possible. A more intimate contact between the psychiatrist and the non-psychiatrically trained physician will favor mutual understanding which in the past has not kept pace with the recognition of psychiatry both by organized medicine and by the public. The problems of mental ill health and behavioral disturbances are so great and the incidence so high that they can never be handled satisfactorily other than by the medical profession as a whole.

Organized medicine has taken a strong stand of leadership in the field of mental health through its committees and commissions. It would be to the advantage of all to amplify and strengthen this type of leadership as rapidly as possible. In the May 14 issue of the *Journal of the American Medical Association,* in a very thoughtful and provocative article by Leo W. Simmons, a number of significant comments were made. To quote one of these "The limitations and complications of spawning specialization and fragmentation of services around the patient are products of our times and constitute as yet unsolved issues in interpersonal relations in the field of health care. As a natural component of specialization, interdependency of personnel results in a sharp splitting up of individual responsibility and of pinning down the blame on those who fail in the link segments of responsibility." It is obvious that this statement is of great significance. In the use of numerous consultants some of the personal interest in the patient (the art of medicine) can be lost. The increasing use of laboratory diagnostic procedures with a consequent reduction in the amount of individual physician-patient relationship and the possibility of prescribing antibiotics or drugs without careful evaluation of the patient's problem, lend themselves altogether too much to a public consideration of the physician as a "technician."

That there are overwhelming needs for more young people qualified to enter the study of medicine, and for more places for training such young people, is obvious to everyone. Perhaps each one of us can do his bit in trying to clear the way for these medical developments.

It is hoped that this new issue of THE JOURNAL will be of great interest to all members of the Michigan State Medical Society and that a special mental health issue of THE JOURNAL will be produced annually. The Committee on Mental Health of the Michigan State Medical Society wishes to express the appreciation of its members to the editor of THE JOURNAL and to the Society for the opportunity of bringing to you the material herein contained.

RAYMOND W. WAGGONER, M.D.
Chairman, Department of Psychiatry,
University of Michigan

Medicine Must Advance

Down through the ages, the history of medicine has been one of continuing progress in one field or another of medical research, medical knowledge, medical skill, medical ability to apply for the benefit of patients the things learned in past experience. That is the way the human culture has developed and in medicine it has been unusually true. Great names have appeared during the ages and are still developing in the special fields of knowledge which make up the accustomed work of the profession.

On September 27-30, 1960, Michigan medicine is staging another assembly in which new knowledge and advanced thought are being demonstrated to our membership. A program has been set up in Detroit where medicine's best teachers and research workers will present to the membership by papers, discussions and conferences, the latest achievement in the scientific field of endeavor.

Michigan has been doing this task for nearly a hundred years. In the early years there was an annual session and a small book published. Fifty-eight years ago it was recognized that better methods of communication must be developed. The profession, through its leaders, its officers and advisors accomplished a complete reorganization of the association and its method of communication; bringing new thought, new ideas, new plans and new programs to each member once a month. The scientific work of the Society was divided into appropriate sections such as medicine, surgery, obstetrics and gynecology.

Fourteen years ago, a second Clinical Institute was established so that the members now meet twice a year for practical and scientific programs, given to us by the best teachers we can select from our own state and from near or distant centers. We have recorded three evolutionary changes in the scientific aspect.

Economic Problems

We have always believed that when new problems are presented and new needs are established and recognized, the medical profession will satisfactorily solve its socio-economic problems as well as the scientific ones. Three or four decades ago these problems were those of the individual doctor trying to make a living. Most doctors had serious odds to overcome although a few were geniuses in socio-logic as well as scientific understanding.

During the 1920's and 1930's the public (our patients) went through an economic wringer in which organized relief became an actuality. Groups and societies in cities throughout the country established welfare funds and community chests to act as relief agencies. The chief activity of these organizations was caring for immediate relief. The medical profession was faced with its side of the general problem. Politicians were complaining that too many people were not receiving needed medical attention.

In Michigan, several of our county medical societies and the state medical society recognized the problem and spent more than 10 years in research, study and effort. Finally, the profession developed Blue Shield. It was a completely new concept of administering medical care to our patients and it was not perfect. The Blue Cross-Blue Shield negated the complaint that vast numbers of our people were not getting and could not get needed medical care.

The criticisms during the 1930's from politicians and from labor leaders were rather severe. Some of them labored several years with determined effort to produce a national compulsory medical insurance program. A few of our own doctors believed that by establishing a voluntary prepaid service program, the medical profession was setting up a project which the government could readily take over. The threat of national compulsory health insurance was lessened—almost forgotten. But it is again before us on the basis of care for the senior citizens, the aged, and has become a political campaign issue.

Blue Shield has functioned tremendously well—it has grown to cover half the people of the state of Michigan and in short 20-year period has paid over $425,000,000 for medical services to its subscribers, covering millions of individual cases. It has been accused of being inefficient, of not holding down abuses and of being too expensive.

The medical profession of the state of Michigan is now faced with another problem growing out of the complete and unexpected success of our efforts to supply medical services for our subscribers.

Three years ago Blue Shield asked for its first rate increase since 1950, which was only partially granted, and was delayed several months. The new M-75 plan which was started two years ago has been popular, and has given many new extended services to subscribers. This new plan has now run into financial difficulty. Numerous studies have been made by the Michigan State Medical Society, Michigan Medical Service, national Blue Shield officials and by the Commission appointed by the Governor to make a study "to determine how to make the service more inclusive and less expensive." This last study is still in process at the University of Michigan following a year of newspaper criticism, which blamed the medical profession for all shortcomings.

The financial difficulties which developed this current year required application for another rate increase, which was requested. The Michigan Insurance Commissioner held public hearings, made his own study and instead of allowing the 19.5 per cent requested, allowed 11.5 per cent for one year with the distinct instruction that this was not to be used to build up a reserve. The medical profession was in-

structed to produce solutions to "abuses" and a plan which would work to preserve the Blue Shield program, the protection of half of Michigan's population. (See "Correspondence".)

At the July meeting of the Michigan State Medical Society Council and of the Blue Shield Board at Mackinac Island, the Insurance Commissioner again cautioned The Council and other groups. He knows of the abuses that have developed; he lays much of it to neglect on the part of the medical profession, and he insists that they make this 11.5 per cent increase work for a year, as well as to produce a workable plan free of "abuses." This is a challenge and obligation not of *some* of the doctors but *all* of them, if the doctors are to save Blue Shield. Blue Shield has proved such a Godsend to our state and its population that it must be saved.

Many groups have been working and many proposals have been made, but an answer must yet be developed, and that without delay. The MSMS annual session which will convene with the house of Delegates meeting in Detroit, Sunday, September 25, and extend most of that week, must produce answers. The State Medical Society and the doctors of Michigan are on trial. They must and they will produce a workable program. Prepaid medical care has become a problem of all doctors and not just the Board of Directors of Blue Shield. That Board and its advisors have been working under handicaps, under unfair criticism and vilification not only from the advocates of socialized medicine but from some of our own members.

If Blue Shield is to be saved, now is the time. We have been specific. When the cards are down, when the going is tough, the medical profession always has and always will come forth with a new or a rejuvenated concept.

The Doctor Must Produce

The critics, the public, labor, even government refuses to recognize or admit misuse and abuse, or accept blame as applying to patients, families, hospitals and labor organizations. Blame is "obviously" on the doctor who admits the patient and discharges him.

A situation has developed which could seriously challenge solvency. Whether he likes it or not, the only person who can salvage prepaid medical care is the individual doctor—each and every one of us. We can save our program.

It is well known that not all doctors are completely sympathetic. Many have proposed changes, expansions, increased coverage and liberalization—all of which have contributed to the present difficulties.

Prepaid and medically controlled medical insurance can be saved or lost. If we lose, compulsory government insurance and care will not be far behind.

Appreciation

Our sincere thanks go to Raymond W. Waggoner, M.D., of Ann Arbor, for his invaluable help in making the selection of original papers for this Mental Health Number of THE JOURNAL. He has spent many hours going over material, in consultations with his committee, and in providing the bulk of the material for this special number.

MSMS Past President Hull Much Alive

Print shops and publishing offices are filled with gremlins, which are forever plaguing editors and printers. One of these gremlins succeeded in slipping in an extra asterisk in the August JOURNAL—and the asterisk noted that L. W. Hull, M.D., Past-President of MSMS, was "deceased."

Nothing could be farther from the truth. Doctor Hull is very much alive in Detroit, where he continues to put in busy days and happy ones. The MSMS staff humbly apologizes to our beloved past president and hopes that he will understand that errors occasionally do happen.

Best wishes, Doctor Hull, for many more years of service to humanity and medicine!

AMWA Calendar

The following activities have been arranged for the 1960-61 program of the American Medical Women's Association, Michigan Branch:

October 12—Lillian T. Majally, executive director of the AMWA, will speak, and prospective members are invited; *November 2*—Combined meeting of lawyers and doctors, the speaker to be announced later; *January, 1961*—Electronic tour and lunch, courtesy of Michigan Bell Telephone Company; *March 8, 1961*—Panel on breast feeding, with the obstetrical, pediatric and psychiatric view point, and *May, 1961*—The final social event.

Launch New Program to Encourage International Health Research

A new federal program intended to spur international health research efforts has been inaugurated. President Eisenhower began the effort when he signed into law the International Health Research Act approved by Congress.

The measure, which involves no federal appropriations and does not establish any new government agency, authorizes the government to: (1) make grants to public or private nonprofit institutions in foreign countries to establish and maintain fellowships; (2) make grants or loans of equipment, medical, biological, physical or chemical substances or other materials for use by public or private nonprofit institutions or individuals in foreign countries; (3) participate and cooperate in any international health research training conferences; (4) facilitate the interchange between the U. S. and foreign countries, and among foreign countries of research scientists, including the payment of their subsistence and travel while they are away from their places of residence; and (5) procure the services of consultants on a temporary basis.

Foreign currencies or credits available to the United States would finance the country's share of the program.

Sees Hospital Construction Expenditures at New Peak

A 4 per cent increase in private hospital construction was noted for the first five months of 1960 by the American Association of Fund Raising Counsel. Construction for that period was valued at $236 million.

Based on the five-month figures, the association forecast that 1960 expenditures for private hospital construction will reach the record figure of $675 million, $75 million more than the previous record established in 1958.

The AAFRC estimates that $300 million of total 1960 construction costs would come from private sources. "If the present pace of public support continues," he said, "and if federal aid is not curtailed, we can reasonably expect our hospitals to meet current and future needs."

Many Youths in Reserve Program

A total of 123 medical, dental, engineering, science, nurse and veterinary students from 61 four-year professional schools are now on temporary active duty with the U. S. Public Health Service as members of the Service's Commissioned Reserve.

Students are offered commissions in grades equivalent to second lieutenant in the Army. They are then placed on active duty for a period not to exceed 120 days. Opportunities for either medical or dental internships or active duty upon graduation are also available to qualified students.

The United States Pharmacopeial Decennial Convention

Pre-Convention Conference

Ground work for the 1960 convention was laid at a Pre-Convention Conference on the evening of March 28. Background, current problems, and specific suggestions were discussed by three speakers: Windsor C. Cutting, M.D., Professor of Experimental Therapeutics, Stanford University School of Medicine; George P. Larrick, Sc.D., Commissioner of Food and Drugs, United States Department of Health, Education, and Welfare; and Linwood F. Tice, Sc.D., Dean, Philadelphia College of Pharmacy and Science.

Windsor C. Cutting, M.D., commented on earlier pharmacopeias and their contributions of value, safety, and standards for drugs and pointed out that the physician practices medicine securely because of these contributions. His recommendations for problems in the coming decade included more frequent publication of supplements, possible amalgamation with the National Formulary, changes in format, standardization of dosage forms, simplification of salt designations, and identification of drugs through good nomenclature. He also stated that as an alternative to ultimate absorbtion by the Food and Drug Administration, the new form of financing the USP must be seriously considered.

George P. Larrick, Sc.D., mentioned the important role the USP played in drug law enforcement at the local level for years before the federal drug law was inacted in 1906. He stated that legal authorities believe that the quasi-legislative authority of Pharmacopeial officials would be supported by the Supreme Court, and he pointed out the value of the Pharmacopeia in the enforcement of the current food and drugs laws by the FDA—it provides a list of important drugs carefully selected by leading physicians, for which appropriate tests and standards have been established by leading pharmacists and pharmaceutical chemists.

Linwood F. Tice, Sc.D., indicated the importance of careful selection of personnel for the technical work of the revision committee. He also suggested that the solution to the growing complexity of developing standards, official tests, and assay procedures would be to use the expanded facilities of the laboratories of the American Pharmaceutical Association.

Regular Session

Highlights of the session held on March 29 were a presidential address by Allen H. Bunce, M.D., President of the Convention, and talks by Hugh H. Hussey, M.D., American Medical Association Trustee; Howard C. Newton, Ph.D., President of the American Pharmaceutical Association; and Secretary Arthur S. Flemming, LL.D., Department of Health, Education, and Welfare.

Hugh H. Hussey, M.D., indicated that the American Medical Association's scientific activity is aimed at closer liaison, cooperation, and accomplishment with other scientific organizations in medicine and its allied areas. He stressed the necessity of an independent body to prepare standards and reinforce confidence in drug quality through an unbiased Pharmacopeia. He pointed out that certain government-supported organizations are plagued by low bids from firms whose products may be of uncertain quality and which is often the reason for the low prices. If the states and communities involved can refer to published monographs instead of having to rely solely on the lowest bid, they can eliminate inferior products and assure the physician of reliable medication. He said that the USP needed to speed up procedures of publishing monographs and that the medical profession would like to see standards of identity, purity, and quality which will assure use of medication that would not result in toxic reactions. He also indicated that someone should take hold and make order of the nomenclature chaos and that the USP can do this as a leader in a cooperative and unified effort.

Howard C. Newton, Ph.D., discussed the firm foundation laid down in 1820 for revisions of the Pharmacopeia, pointing out that the primary guidelines then established are still valid and reliable. He suggested a Pharmacopeia in two volumes, one with articles and standards and the other with methods and miscellaneous information. He offered the wholehearted cooperation of the A.Ph.A. including the added service by the enlarged laboratory.

Arthur S. Flemming, LL.D., pointed out that the preeminence of the Pharmacopeia is largely due to the quality of the people who have worked on the revisions over the years and that Congress had recognized this by adopting the requirements as legal standards in 1906. He said that manufacturers of industrial products operate on a sound basis by selecting their raw materials which meet Pharmacopeia standards. The Pharmacopeia thus plays a much larger role than it formerly did. Medical research will raise and eventually solve many important problems as to test procedures, allowable tolerances, and dosages.

Final Sessions

The final sessions were devoted to discussions; committee reports, including the report of the resolutions committee and the report of Dr. Lloyd C. Miller, Director of Revision; and the election and installation of officers and the Board of Trustees.

The resolutions adopted instructed the incoming officers and Board of Trustees to:

1. Work out a better method of selecting simplified, consistent nonproprietary names for all drugs as well as a system of keeping listings of pharmaceuticals by nonproprietary and trade names up to date.

2. Standardize—if possible—and include in the USP standards on hypodermic needles and syringes, clinical thermometers, orthopedic implants, diagnostic test papers and other materials which will be placed in the human body.

3. Publish "caution" statements in USP monographs to insure USP standards are met as long as the drugs are held for sale.

Members of the new Board of Trustees include: Windsor C. Cutting, M.D., Paul L. McLain, M.D., George D. Beal, Ph.D., Patrick H. Costello, Ph.D., George F. Archambault, Ph.D., and Linwood F. Tice, Sc.D.

Officers elected were: President, Arthur C. DeGraff, M.D.; Vice President, Theodore G. Klumpp, M.D.; Treasurer, W. Paul Briggs, Sc.D. Lloyd C. Miller was re-appointed as Director of Revision.

Health Council Posters Offer Advice for Baby Emergencies

Teamwork displayed by many individuals and organizations may mean the difference between life and death for many infants and small children.

In February, the trustees of the Michigan Health Council approved unanimously plans of the Council staff to develop a Baby Emergencies poster to be distributed to Michigan parents with small children.

Brooker L. Masters, M.D., of Fremont arranged a meeting with Gerber Baby Foods Fund Trustees and they approved a grant of $3,500 to cover the cost of printing the poster.

George L. Lowrey, M.D., and Harry A. Towsley, M.D., of the University of Michigan Medical Center, offered their services in the preparation of medical information on the poster. The AMA gave permission to use their latest instructions and illustrations on Mouth-to-Mouth Resuscitation for Infants and Small Children and on Artificial Respiration. Dirk Gringhuis, cover artist for the Michigan State Medical Society Journal, did the art work and illustrations.

* * *

OVER 150,000 POSTERS are now in the process of being distributed throughout Michigan. The poster points out clearly and briefly what parents, baby sitters and others should do if an infant or small youngster is burned, bitten, poisoned, breaks a bone, cracks or knocks out a tooth, steps on a nail, swallows a foreign object, is cut deeply or suffers a convulsion.

The attractive poster provides ample place on the top to list the doctor's name and phone number, fire inhalator, hospital, poison control center, police, closest neighbor and relative so the baby sitter can call for assistance if the parents are away from home when the child is injured. On the reverse side are illustrations and instructions on how to give Mouth-to-Mouth Resuscitation and Artificial Respiration. The poster repeatedly impresses on the parents to contact the doctor as soon as possible after the emergency takes place for further guidance and directions.

Mrs. Robert McGillicuddy of East Lansing, wife of a pediatrician and former president of the Auxiliary to the Ingham County Medical Society and Mrs. Richard Walker, wife of a Kalamazoo dentist, were both so impressed with the poster that they volunteered and now are distributing several thousand posters to medical offices in the Greater Lansing and Greater Kalamazoo areas.

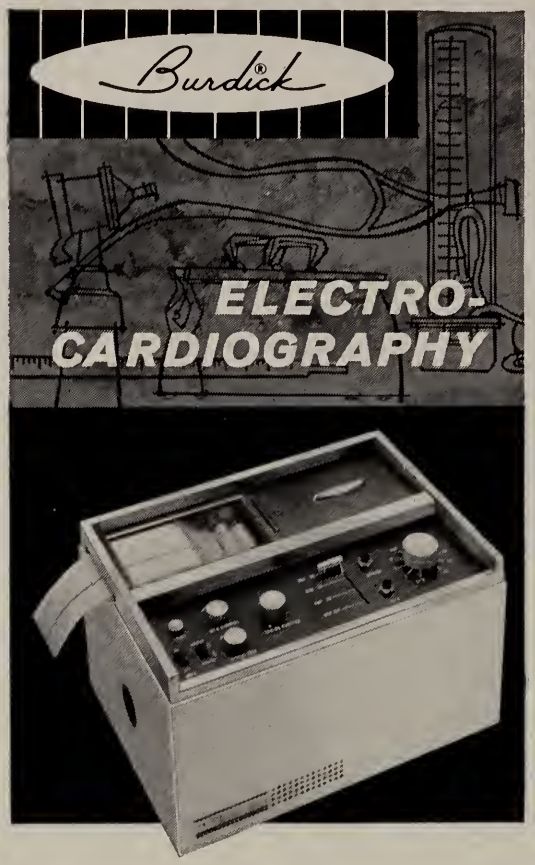
Mrs. Paul Ivkovitch, Reed City, President-Elect, and Mrs. Lorenzo Nelson, Baldwin, District Director of the Auxiliary to the Michigan State Medical Society, are also distributing thousands through medical offices, community health councils and other community groups.

* * *

MARRIED HOUSING directors at Michigan State University and Ferris Institute have given posters to over 2,500 young families on their campuses.

Michigan Farm Bureau has made a series of radio tapes and are distributing this to over 50 Michigan radio stations announcing the poster. They have also distributed it to more than 2,000 farm groups and leaders in Michigan.

ANCILLARY 1421



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The Michigan Hospital Association, Michigan State Dental Association, Michigan State Pharmaceutical Association, as well as more than 95 other member organizations of the Health Council, are cooperating in the distribution.

The University of Michigan Medical Center Well Baby Clinic as well as other departments are giving the form to young parents.

* * *

THE STATE DEPARTMENT of Health, as well as many of the city and county health departments, are using and distributing the form. The Dearborn Health Department, for example, is including it with a letter sent to all new parents as well as a letter sent when a child reaches his first birthday.

The Michigan State Police and the medical department of Ford Motor Company are distributing the form after they give first aid and mouth-to-mouth resusitation instructions to community groups and supervisory employees. Many other industries are distributing the poster to their employees through their medical and personnel departments.

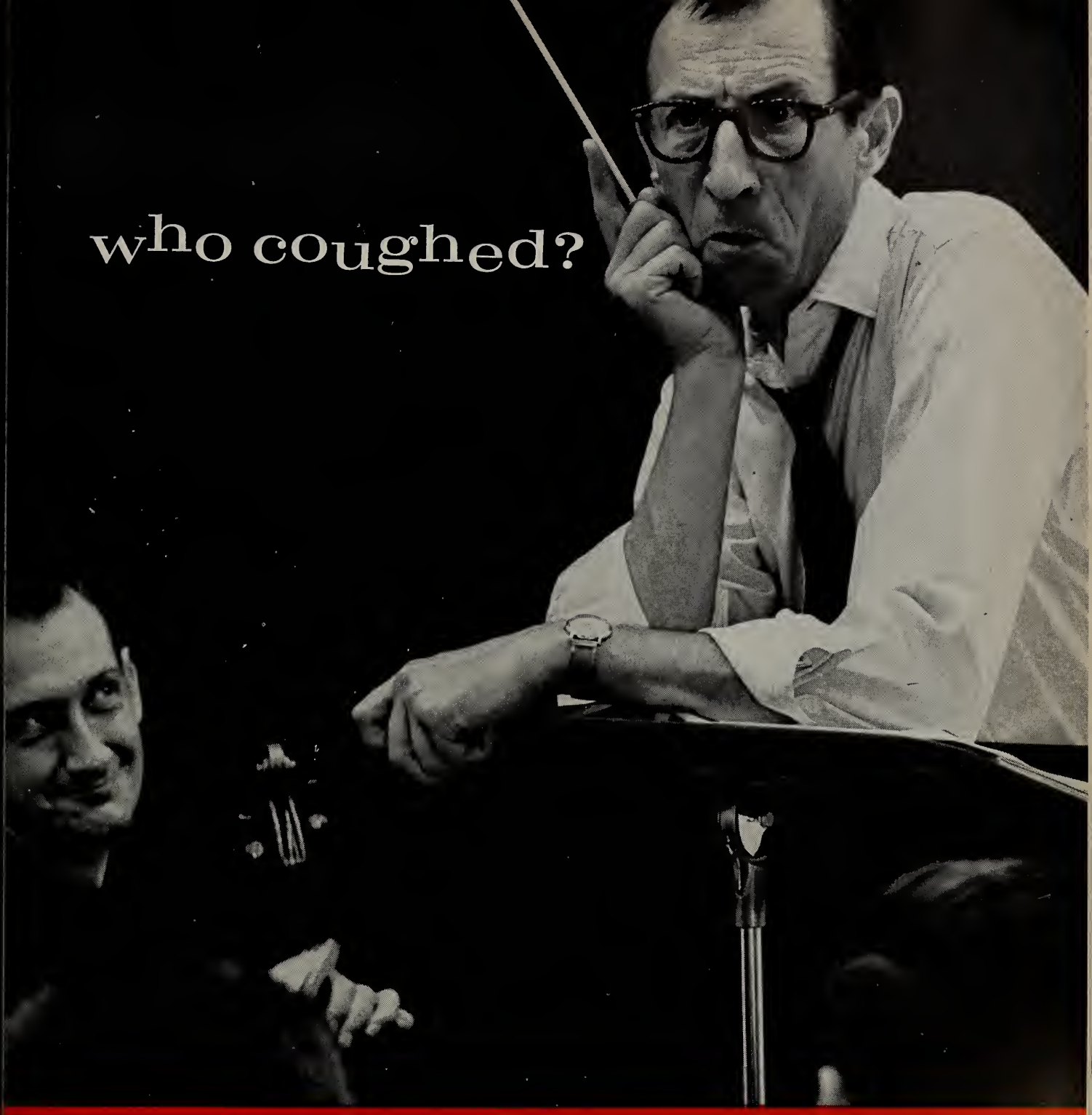
The Gerber Baby Foods Fund trustees are delighted with the project and share the hope of the Michigan Health Council that it will eventually be in every Michigan home and especially those with small youngsters.

Free copies can be secured by sending a self-addressed envelope to J. A. Doherty, Executive Secretary, Michigan Health Council, P.O. Box 788, East Lansing. Large orders for distribution through medical offices, community groups, etc., can be made in the same manner.

MMS Board Limits Directors' Terms

The Michigan Medical Service Board of Directors has passed a resolution limiting the term of office of board members to a period of two consecutive three-year terms in any consecutive seven-year period. Directors who have completed two consecutive three-year terms can again be nominated after one year has been allowed to elapse.

This action, which conforms to a resolution passed by the 1959 House of Delegates of the Michigan State Medical Society, points out that this office limitation does not apply to any person placed in nomination by the Michigan Hospital Association. The limitation may also be waived in the case of the President or any Board member serving as a representative of the public, by affirmative vote of two thirds of the Directors present at a meeting at which the matter is considered.



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Dihydrocodeinone Bitartrate	5 mg.	6.5 mg.
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MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

Celery Dermatitis

Last year, a Michigan physician, noting that celery harvesters in his community were developing severe vesicular and bullous lesions, asked the department whether or not contact with diseased celery could be the cause. As a result of this inquiry, the Division of Occupational Health, in cooperation with the Public Health Service, conducted a survey among celery farm workers in Michigan to determine the incidence and the cause of the severe dermatitis occurring among these celery workers.

Of 302 celery workers examined in a random sample, 163 displayed various stages of dermatitis along with areas of depigmentation and hyperpigmentation remaining from previous lesions. They described the disease as "celery burns," "celery blisters," and "celery itch." The celery growers were convinced that the eruption was caused by harvesting or touching plants infected with pink-rot, a fungus infection. It was suggested that photosensitivity might account for the dermatitis.

To determine the role of allergic sensitivity versus that of photoreactivity, a series of six patch tests were done on twenty-five field workers. The patch tests were made with normal celery stalks, crushed but otherwise normal celery leaves, and pink-rot celery. In addition, in the laboratory, patch tests using the same materials were done on five volunteers with no previous exposure to pink-rot celery.

These tests offered strong evidence of a phototoxic reaction. Subsequent tests demonstrated clearly that pink-rot celery contained a highly reactive phototoxic material capable of affecting normal white skin. Mexicans and Negroes are little affected by handling or cutting celery.

As a result of this and other tests, it was determined that celery dermatitis is due to two factors: pink-rot and sunlight. The infected celery tissue exudes a photosensitive material, which, when exposed to sunlight, causes the severe dermatitis.

Prevention of celery dermatitis resolved itself to elimination of the pink-rot infection in the celery plants or providing a suitable skin barrier to eliminate contact with infected plants. To date, there is no known method of controlling pink-rot, although deep plowing and/or soil applications of fungicides offer some degree of control. Therefore, it was necessary to develop a chemical sun screen capable of absorbing a known light spectrum.

Two pharmaceutical companies prepared experimental protective creams that would shield the skin from the exudate and act as a sun screen to the light spectrum. A research project is now under way to determine the effectiveness of these skin creams in the prevention of celery dermatitis. From recent reports, it appears that these preparations have produced effective results, and the celery growers are enthusiastic over the possibility of controlling a disease that has plagued the industry since the introduction of celery in Michigan and the United States.

Change in Organization

Act 13, P.A. 1959, abolished the Office of Hospital Survey and Construction, and Act 26, P.A. 1959 abolished the Michigan Tuberculosis Sanatorium Commission. These acts place responsibility for the operation of the Office of Hospital Survey and Construction and the four state tuberculosis sanatoriums with the State Health Commissioner. Both acts became effective March 19, 1960.

A Division of Hospital and Medical Facilities has been established, making ten divisions in the department. Effective July 1, 1960, Mr. Symond R. Gottlieb was appointed director of this new division.

The Michigan Tuberculosis Sanatorium Commission has been replaced by the Advisory Council on Tuberculosis Sanatoriums. The members of the former Michigan Tuberculosis Sanatorium Commission will continue to serve on the new advisory council.

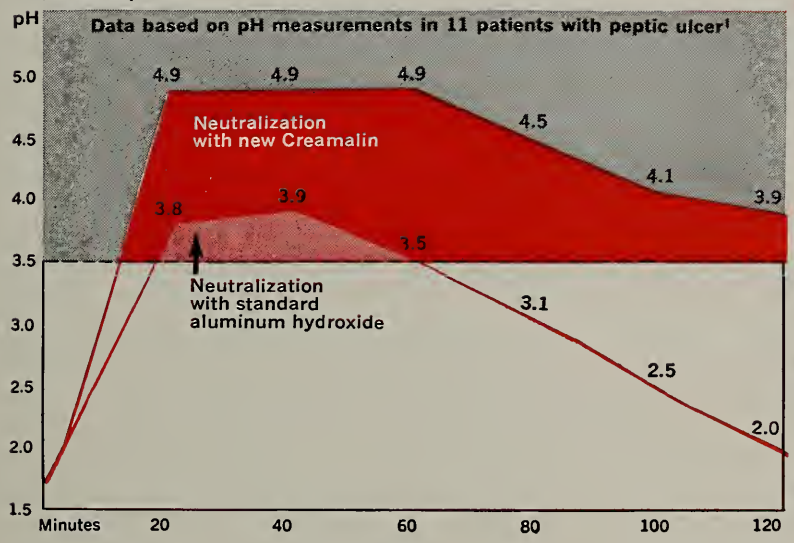
New Members Appointed to State Council of Health

The Governor has appointed the following new members to the State Council of Health:

John E. Scott, M.D., Director, Grand Traverse Leelanau-Benzie Health Department, Traverse City
Mrs. Katherine Reiman, R.N., Atlanta
Robert McCauley, Ph.D., Michigan State University, East Lansing
Wilbur J. Cohen, Ph.D., School of Social Work, University of Michigan, Ann Arbor.

At the site of peptic ulcer

Following determination of basal secretion, intragastric pH was continuously determined by means of frequent readings over a two-hour period.



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New Creamalin provides virtually the same effects as a liquid antacid[2] with the convenience of a tablet.

Nonconstipating and pleasant-tasting, new Creamalin antacid tablets will not produce "acid rebound" or alkalosis.

Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive, short polymer dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles of the powder offer a vastly increased surface area for quicker and more complete acid neutralization.

Dosage: Gastric hyperacidity — from 2 to 4 tablets as necessary. Peptic ulcer or gastritis — from 2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed whole with water or milk, or allowed to dissolve in the mouth. **How supplied:** Bottles of 50, 100, 200 and 1000.

1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: **J. Am. Pharm. A.** (Scient. Ed.) 48:384, July, 1959.

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Plastic Strips

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Obstetrical Brevits

(This column is sponsored by the Michigan Society of Obstetrics and Gynecology.)

Essentials and Responsibilities of Antenatal Care

Antenatal care for every pregnant woman should be started as early as possible regardless of age, parity, and the number of previous uncomplicated pregnancies she may have had. There is a misconception prevalent among lay people, and some physicians, that previous uneventful gestational experiences presage uncomplicated future pregnancies and deliveries. This fallacy is exposed by the well-known fact that after the age of twenty-five, the hazards of ruptured uterus, hemorrhage, toxemia, embolism, prolonged labor, prematurity and congenital defects of offspring, increase with each succeeding pregnancy. The thirty-five-year-old multipara requires prenatal care even more than the twenty-five-year-old primipara. Cardiac, renal, vascular, pulmonary, metabolic and other systemic disorders progress, and the risk from indirect and non-related causes of obstetric mortality and morbidity grows as the patient's age advances.

Many of the deaths from ruptured ectopic pregnancy could be avoided if patients afforded their physician an opportunity to recognize the condition by pelvic examination after the appearance of the first signs of pregnancy and before rupture occurs. Abortions often take place before the diagnosis of pregnancy has been made, suitable instructions can be given, and prophylactic therapy instituted. In the first trimester, all of the important structures of the embryo pass through their formative stages, and it is in this period of pregnancy that proper nutrition, avoidance of acute infections, and metabolic regulation must be assured to reduce the incidence of congenitally defective fetuses, abortions, stillbirths and premature births.

In uncomplicated pregnancies, the prenatal visits should be made at four-week intervals until the end of the seventh month, at intervals of two weeks during the eighth month, and weekly in the ninth month of pregnancy. When there is systemic disease or if complications of pregnancy arise, the frequency of the visits must be increased. Adequate prenatal care enables the doctor to learn the physical and emotional characteristics of his patient, and the patient, by observing his skill, dependability and understanding develops confidence in her attending physician.

Adequate antenatal care involves keeping a careful family, medical and obstetrical history, and a record of events since the present pregnancy was first sus-

(Continued on Page 1430)

Now—All cold symptoms can be controlled

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timed-release *tablets*

Controls congestion
with Triaminic,[1,2,3] the leading oral nasal decongestant.

Controls aches and fever
with well-tolerated APAP, non-addictive analgetic[4] and excellent antipyretic.[5]

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(phenylpropanolamine HCl	25 mg.
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Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

References: 1. Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958. 4. Bonica, J. J.: in Drugs of Choice, Mosby, St. Louis, 1958, p. 272. 5. Dascomb, H. E.: in Current Therapy, Saunders, Phila., 1958, p.78. 6. Bickerman, H. A.: in Drugs of Choice, Mosby, St. Louis, 1958, p.547.

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with non-narcotic Dormethan, possessing "amply demonstrated" antitussive activity,[6] as effective as codeine.

Liquefies tenacious mucus
with terpin hydrate, classic expectorant.

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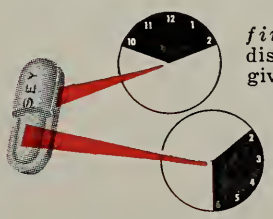

first — the outer layer dissolves within minutes to give 3 to 4 hours of relief

then — the inner core releases its ingredients to sustain relief for 3 to 4 more hours

Dosage: One tablet in the morning, midafternoon and at bedtime. Pediatric dosage chart for Tussagesic Suspension available on request.

TUSSAGESIC SUSPENSION provides palatability and convenience which make it especially attractive to children and other patients who prefer liquid medication.

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(Continued from Page 1428)

pected. In addition to a complete physical examination, special attention must be given to the pelvis and abdomen, in order to confirm the pregnancy; to determine that the conceptus is intrauterine, and that there are no pelvic abnormalities, such as tumors, malpositions or inflammatory disease which might jeopardize the favorable outcome of the pregnancy.

Proper examination of the pelvis includes bimanual examination and inspection of the vagina and cervix with the aid of a speculum and a good source of light. Adequacy of the pelvis for normal vaginal delivery, in most instances, can be determined by external and internal pelvimetry, but when inconclusives, radiographic pelvimetry is best resorted to late in the pregnancy.

At the first prenatal visit, the following laboratory studies should be made: complete urinalysis, blood count, serologic test for syphilis, determination of blood type and the Rh factor. Abnormalities revealed by these tests may indicate the need for additional examinations and therapy. The normal weight, as well as the weight and blood pressure at the time of the first visit, are taken to serve for comparison with observations taken as pregnancy proceeds. The height of the fundus is recorded. Immunization against poliomyelitis should be started at the first visit, if it hasn't already been done.

The patient is instructed regarding the physiology and hygiene of pregnancy, nutrition, exercise, rest, bathing, sexual relations, girdles, brassieres, et cetera. It is good practice to prescribe a preparation of essential vitamins and minerals to assure an adequate intake of these important substances throughout pregnancy. When complicating conditions exist, additional appropriate directions are given and the frequency of the visits increased. The patient is admonished to report immediately: (1) persistent vomiting, (2) unusual vaginal discharge or bleeding, (3) abdominal pain, (4) visual disturbances, (5) headaches, (6) a gain in weight of more than one pound a week, (7) edema, (8) dyspnea, and (9) violent fetal movements. At each subsequent visit, weight and blood pressure are recorded, the height of the fundus noted and urinalysis is performed. A gain of more than one pound per week, blood pressure above 140/90, visual disturbances, headaches, edema or albuminuria must be regarded as signs of threatened toxemia. Normal growth of the embryo is confirmed by measuring the increasing height of the fundus.

In the later months of pregnancy, the patient is instructed in the physiology of labor and the signs of the onset of labor. Prenatal education, whether given by the attending physician or in classes for expectant parents, will allay many fears and the apprehensions of most pregnant women and assure their better cooperation during labor.

These responsibilities of the obstetrician can be fulfilled only when his services are sought early in and throughout pregnancy. There is still great need for education of lay people in the importance of antenatal care.

American Board of Obstetrics and Gynecology

The next scheduled examination, (Part I), written will be held in various cities of the United States, Canada, and military centers outside the Continental United States, on Friday, January 13, 1961.

Candidates submitting applications in 1960 for the 1961 examinations are not required to submit case reports as previously required to complete the Part I examinations of this Board. In lieu of this requirement, new candidates are required to keep in their files a duplicate list of hospital admissions as submitted with their application, for submittal at the annual meeting in Chicago, should they become eligible to take the Part II (oral) examinations.

Reapplying candidates will be required to submit case reports for review thirty days after notification of eligibility. Scheduled Part I and candidates resubmitting case reports are required to submit case reports prior to August 1 each year.

Current bulletins may be obtained by writing to: Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

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Precautions: Usual sulfonamide precautions apply.

1. Boger, W. P.; Strickland, C. S., and Gylfe, J. M.: *Antibiotic Med. & Clin. Ther.* 3:378 (Nov.) 1956. 2. Boger, W. P.: In: *Antibiotics Annual* 1958-1959, New York, Medical Encyclopedia, Inc., 1959, p. 48. 3. Sheth, U. K.; Kulkarni, B. S., and Kamath, P. G.: *Antibiotic Med. & Clin. Ther.* 5:604 (Oct.) 1958. 4. Anderson, P. C., and Wissinger, H. A.: *U. S. Armed Forces M. J.* 10:1051 (Sept.) 1959.

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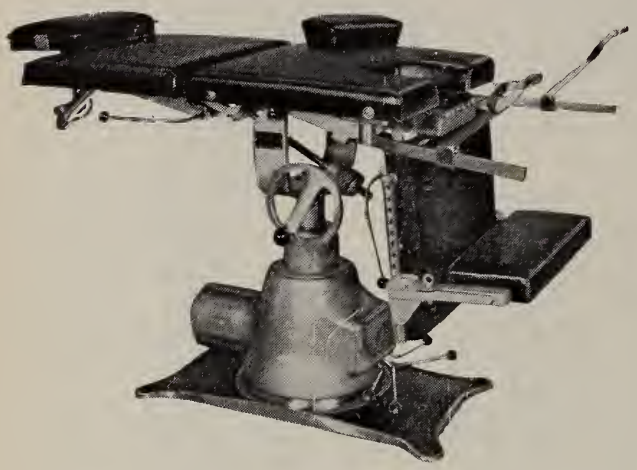

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IN MEMORIAM

E. A. BICKNELL, M.D., fifty-nine, a Detroit physician for thirty-five years, died August 1, 1960.

A native of Dunnville, Ontario, Doctor Bicknell was a graduate of the University of Toronto Medical School. He served as a major in the U. S. Army Medical Corps in World War II.

He was a member of the Detroit Athletic Club.

W. H. BROCK, M.D., eighty-six, Saginaw physician, died March 11, 1960.

Doctor Brock was a graduate of the Saginaw Valley Medical College and practiced in Midland prior to beginning his practice in Saginaw.

He was a Life Member of the Michigan State Medical Society. Other memberships included Masons, Shriners and Elks.

LEON F. COBB, M.D., sixty-three, Pontiac physician and surgeon for thirty-eight years, died July 28, 1960.

Born on a Pontiac township farm, Doctor Cobb was graduated from Ferris Institute in 1917, and received his medical degree from Wayne State University in 1921.

Doctor Cobb interned and took his residency at Grace, Booth and Detroit Receiving Hospitals. He began practice in Pontiac in 1922, and was one of Oakland County's original deputy coroners, having been appointed to that post more than twenty-five years ago.

He was a past president of the Oakland County Medical Society.

Other memberships included First Congregational Church, Pontiac Masonic Lodge No. 21, Knights of Pythias and Kiwanis Club.

ALBERT S. JACKNOW, M.D., thirty-four, a Pontiac orthopedic surgeon, died July 25, 1960.

Doctor Jacknow devoted much of his time to work in the Michigan Crippled Children's Society.

He was a 1952 graduate of the University of Western Ontario Medical School. He was on the staffs of Pontiac's St. Joseph Mercy Hospital and Pontiac General Hospital, and was a member of the Detroit Orthopedic Society.

WM. H. PICKETT, M.D., seventy-one, retired Saginaw physician, died July 23, 1960.

Doctor Pickett, prior to his retirement in 1946, had served as director of the Saginaw County Contagious Hospital. He was a 1911 graduate of Atlanta Medical College, Georgia, and specialized in public health work.

EVERETT H. REED, M.D., Detroit physician, died June 26, 1960.

He was an Associate Member of Wayne County Medical Society and of the Michigan State Medical Society. (No further information available.)

(Continued on Page 1434)

even in allergic infants

FROM A CLINICAL STUDY* IN ANNALS OF ALLERGY

Patients	200 infants and children, ages 2 months to 14 years
Diagnosis	Perennial allergic rhinitis
Therapy	Dimetane Elixir
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*MC GOVERN, J. P., MC ELHENNEY, T. R., HALL, T. R., AND BURDON, K.D.: ANNALS OF ALLERGY 17:915, 1959.

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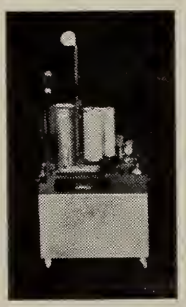

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In Memoriam

(Continued from Page 1432)

CHARLES J. SOCALL, M.D., fifty-six, a Dearbo area practicing physician for thirty years, died July 5, 196

Doctor Socall was a graduate of the University of Mich gan medical school in 1930.

He was a captain in the Army Medical Corps durir World War II.

EDWARD STEIN, M.D., forty-five, an Oak Pa eye, ear, nose and throat specialist, died July 19, 1960.

Doctor Stein was born in Detroit. He was graduated fro the University of Michigan Medical school in 1937 an did postgraduate work in ophthalmology at the New Yo Post Graduate Medical School and Wayne State Unive sity. He interned at Wayne County General Hospital.

In addition to his medical affiliations, he was past pres dent of Phi Lambda Kappa Medical Fraternity and th Detroit Alumni Club. He was a member of the board directors for the Berkley Lions club, president of the Ferr dale Stamp club, past president of the Michigan Bridg Association and was a member of the Oakwood lodg B'nai B'rith.

During World War II, Doctor Stein served in the U. Army Air Corps and was awarded the Soldiers' Medal f Bravery.

B. H. VAN LEUVEN, M.D., Traverse City, die recently.

Doctor Van Leuven was a retired member of the Michiga State Medical Society. (No further information available.

Laboratory Examinations

Tissue Diagnosis

Allergy Tests	Hematology
Autopsies	Papanicolaou Stain
Bacteriology	Pregnancy Tests
Basal Metabolism	Protein Bound Iodine
Chemistry	Urinalysis
Electrocardiograms	

Serology—Kahn and Wassermann

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Michigan M.D.'s in News

AIDS CITY PLANNING—Ralph A. Johnson, M.D., Detroit, has been appointed by Mayor Miriani to the Detroit City Plan Commission. Doctor Johnson will fill the four-year unexpired term of the late Charles G. Johnston, M.D.

* * *

NAMED TO COLLEGE BOARD—Rex A. Wilcox, M.D., of Alma, has been appointed to the Alma College Board of Trustees. Doctor Wilcox has served as president of the Alma school board and presently is chairman of the board of trustees of Alma's First Presbyterian Church.

* * *

WINS ART AWARD—Among the winners at the 23rd annual American Physicians Art Association Exhibit at Miami Beach was Theodore E. Palm, M.D., of Crystal Falls. Dr. Palm was one of two winners in the water color division with his exhibit, entitled "Street Scene."

Once again, the expansive art exhibit was held concurrent with the AMA annual meeting.

* * *

TRAMPOLINE WINNER—John S. DeTar, M.D., Milan, received two tips at the annual State AAU Trampoline Championships held this summer in Ann Arbor. The oldest performer in this AAU meet, Dr. DeTar took first place in the age group of 60 and under, and third place in the group of 18 and over. Dr. DeTar, who became interested in tram work about three years ago, has mastered about one-half of the 100 possible tricks, according to a news article in the *Ann Arbor News*.

* * *

SPEAK IN DENMARK—Two epidemiologists from Ann Arbor participated in the International Poliomyelitis Congress in Copenhagen, Denmark, in July. Gordon C. Brown, M.D., addressed the Congress on "Duration of Immunity with the Salk Vaccine," and W. W. Ackermann, M.D., on the Chemistry of Virus Infections."

* * *

CHEST PHYSICIANS ELECT—Officers elected for the American College of Chest Physicians for the 1960-61 term included Winthrop N. Davey, M.D., Ann Arbor, who was re-elected Governor for Michigan.

The following physicians from Michigan received their Fellowship certificates on June 11: Francis S. Gerbasi, M.D., Detroit, Henry J. Kehoe, M.D., Detroit, Edward J. Klopp, M.D., Battle Creek, and Nathan Levitt, M.D., Detroit. Doctor Levitt also received a certificate of merit as Past-President of the Michigan Chapter.

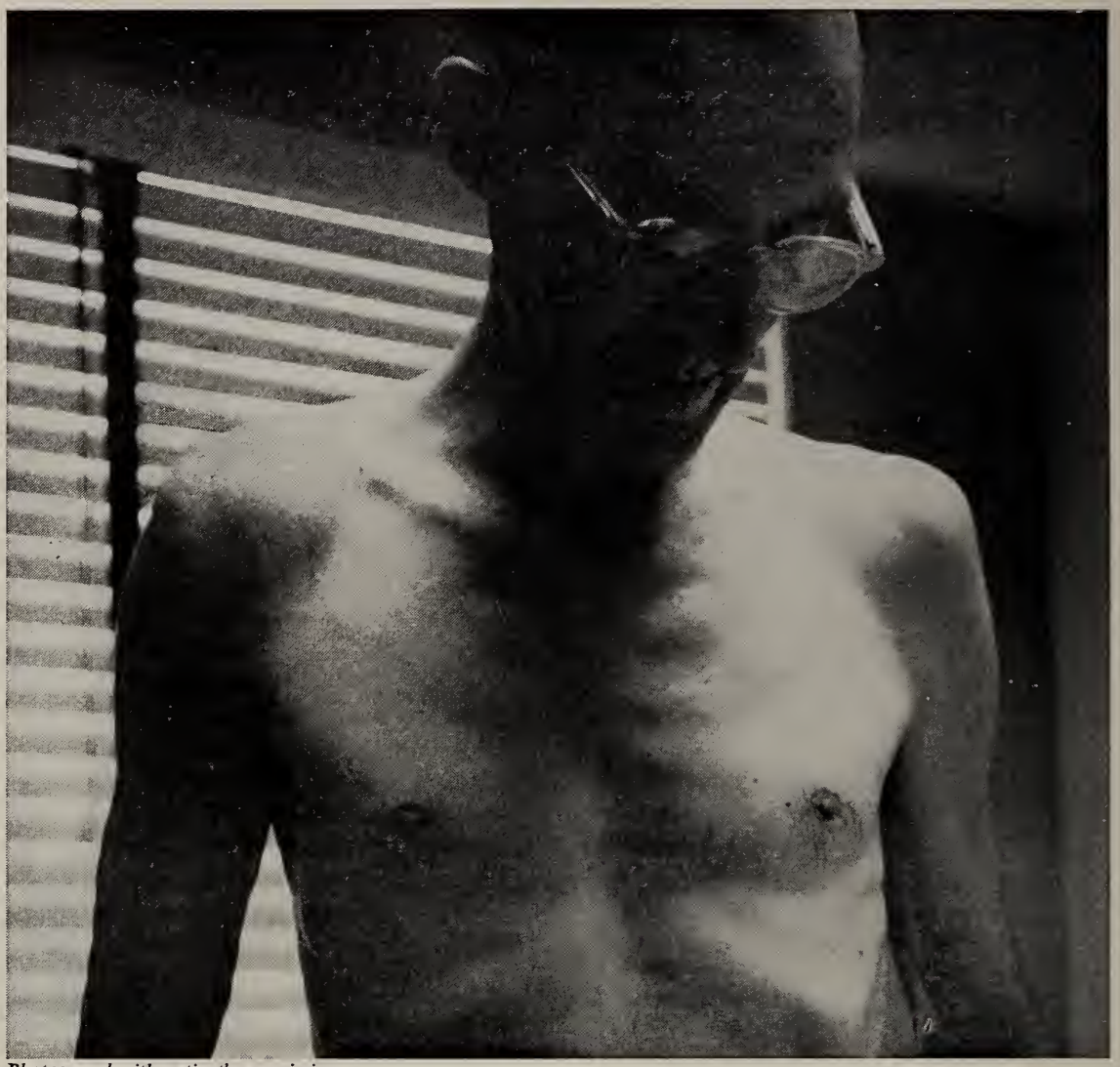
* * *

LEADS U. S. GROUP—Seward E. Miller, M.D., Ann Arbor, was chairman of the American delegation to the 13th International Congress on Occupational Health, July 25-29, in New York City. More than 3,000 attended from all over the world, including Iron Curtain countries.

* * *

HONOR WAYNE M.D.'S—Honorary memberships in the Detroit Otolaryngological Society were presented to four Wayne County doctors at the Society's recent golden jubilee dinner. The four were William S. Gonne, M.D., John W. Lawson, M.D., William S. Summers, M.D., and Walter Orr, M.D.

Contributions for this "News Briefs" department are invited from individual physicians, from county societies, and from other health organizations. Please direct your contributions to the Editor.



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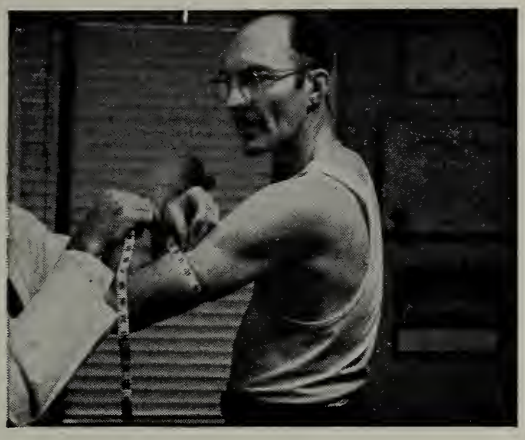
How new **Dianabol** rebuilt muscle tissue in this underweight, debilitated patient

Patient was weak and emaciated before Dianabol. R. C., age 51, weighed 160 pounds following surgery to close a perforated duodenal ulcer. His convalescence was slow and stormy, complicated by pneumonia of both lower lobes. Weak and washed out, he was considered a poor risk for further necessary surgery (cholecystectomy). Because a conventional low-fat diet and multiple-vitamin therapy failed to build up R. C. sufficiently, his physician prescribed Dianabol 5 mg. b.i.d.

Patient regains strength on Dianabol. In just two weeks R. C.'s appetite increased substantially; he had gained 9½ pounds of lean weight. His muscle tone was improved, he felt much stronger. After 4 weeks, he weighed 176 pounds. Biceps measurement increased from 10″ to 11½″. For the first time since onset of postoperative pneumonia, his chest was clear. Mr. C.'s physician reports: "He tolerated cholecystectomy very well and one week postop felt better than he has in the past 2 years."



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converts protein to working weight in wasting or debilitated patients

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(Continued from Page 1439)

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports that the following topics were covered during the month of July on the weekly Sunday morning program over WJBK-TV, in Detroit: You and Your Driving (safe driving habits), To Have Dominion (Muscular Dystrophy), Tuesday's Child (Retarded Children), Paddle a Safe Canoe (water safety), and Teaching Johnny How to Swim.

* * *

U-M CONFERENCE ON FRACTURES—The University of Michigan will offer a Postgraduate Conference on Fractures November 10-11. The course is offered on the non-operative and operative treatment of fractures of the spine and extremities. Instruction will include basic anatomical background in the treatment of fractures, including demonstrations by anatomical specimens to illustrate the principles of bone and joint deformities following fractures, neuro-vascular dangers, location of sites for skeletal traction, and anatomical approaches to the bones and joints.

Types of splints and methods of traction will be demonstrated.

Fractures in children also will be discussed.

The program will be under the direction of Carl E. Badgley, M.D., assisted by his staff in the Division of Orthopedic Surgery, and by members of the staff in other surgical specialties.

Applications may be addressed to the Department of Postgraduate Medicine, University Hospital, Ann Arbor.

* * *

LIST U-M POSTGRADUATE COURSES—The University of Michigan department of postgraduate medicine reports the following courses and dates for 1960-61. Information regarding the courses will be mailed upon request. Write John M. Sheldon, M.D., Director, Department of Postgraduate Medicine, Room 1610, University Hospital, Ann Arbor.

Courses	*Dates*
(Intermittent Courses)	
Anatomy (Thursdays)	February 16-May 25
Clinical Conferences (Wednesdays) (Including all Clinical Fields)	October 5-February 22
Internal Medicine	
Electrocardiography & Heart Diseases (Tuesday evenings)	September 27-February 7
Selected Clinical Topics (Tuesday evenings)	February 14-May 2
Clinical Internal Medicine (Thursday afternoons)	October 6-March 9
Psychiatry for Internists (Wednesdays) (12 weekly sessions omitting Dec. 21 and 28)	October 12-January 11
(Continuous Courses)	
Internal Medicine	
Gastroenterology	February 27-March 3
Cardiology (American Heart Association)	March 13-17
Diseases of the Heart	March 20-24
Electrocardiographic Diagnosis	March 27-April 1
Diseases of the Blood	April 3-7
Pulmonary Diseases	April 10, 11, 12
Allergy	April 13, 14, 15
Endocrinology & Metabolism	April 17-21
Recent Advances in Therapeutics	April 24-28
Rheumatology	April 24, 25, 26

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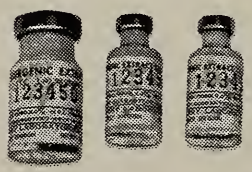

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Infertility and Endocrinology	March 9-10
Neurology, Clinical	March 13-14
Obstetrics and Gynecology	January 25, 26, 27
Ophthalmology	April 24, 25, 26
Otolaryngology	April 20, 21, 22
Orthopedic Surgery (Fractures)	November 10-11
Pediatrics	January 23, 24, 25
Psychiatry	February 20, 21
Radiology, Diagnostic	April 3, 4, 5
Radioactive Isotopes, Clinical Use of	As arranged
Basic Sciences and their Clinical Correlation and Application	September 26-June 2

(These courses are presented in a block system, making it possible not only for residents from affiliated and other hospitals to attend but, also, for practicing physicians to enroll for any or all sections. All of the sections are closely correlated and integrated with their clinical application.)

Pathology	September 26-December 16
Bacteriology	January 2-13
Biophysics	January 16-27
Endocrinology	January 30-February 10
Biochemistry	February 13-March 3
Physiology	March 6-17
Pharmacology	March 20-31
(Spring Vacation April 1-10, 1961)	
Anatomy (Obstetrics & Gynecology)	April 10-29
Anatomy (Surgery)	April 10-June 2

MEDICAL MEETINGS U.S.A.

American Medical Writer's Association, November 18 and 19, Hotel Morrison, Chicago, Illinois; Harold Swanberg, M.D., 510 Maine Street, Quincy, Illinois, Secretary.

Indiana State Medical Association, October 2-5, Sheraton Hotel, French Lick, Indiana; J. A. Waggener, 1021 Hume Mansur Building, Indianapolis 4, Executive Secretary.

American College of Surgeons 47th Annual Clinical Conference, October 2-6, Chicago.

Central Association of Obstetricians and Gynecologists, October 6-8, Kansas City, Missouri; Herman L. Gardner, M.D., 633 Hermann Professional Building, Houston 25, Secretary-Treasurer.

American Otorhinological Society for Plastic Surgery, October 9, Conrad Hilton Hotel, Chicago.

American Academy of Ophthalmology & Otolaryngology, October 9-14, Palmer House, Chicago; William L. Benedict, M.D., 15 Second Street, N.W., Rochester, Minnesota, Executive Secretary.

American Medical Association Industrial Health Conference, October 10-12, Hotel Charlotte, Charlotte, North Carolina.

Regional State Medical Journal Editors Conference, October 15-16, Phoenix Hotel, Lexington, Kentucky; J. P. Sanford, 1169 Eastern Parkway, Louisville 17, Managing Editor, Journal of Kentucky State Medical Association.

American Academy of Pediatrics, October 17-20, Palmer House, Chicago; E. H. Christopherson, M.D., 1801 Hinman Avenue, Evanston, Illinois, Executive Director.

National Safety Congress, October 17-21, Chicago; R. L. Forney, 425 North Michigan Avenue, Chicago 11, Secretary.

Postgraduate Course in Laryngology and Bronchoesophagology, October 17-29, The Department of Otolaryngology, University of Illinois College of Medicine, Chicago, Illinois;

(Continued on Page 1444)

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1. A.M.A. Council on Drugs: New and Nonofficial Drugs 1959, Philadelphia, Lippincott, 1959, p. 389. 2. United States Dispensatory (Osol-Farrar), ed. 25, Philadelphia, Lippincott, 1955, p. 1412. 3. Grollman, A.: Pharmacology and Therapeutics, ed. 3, Philadelphia, Lea & Febiger, 1958, p. 208.

Each tablespoonful (15 ml.) contains 0.33 Gm. (5 gr.) equivalent to 0.16 Gm. (2½ gr.) Theophylline U.S.P. Supplied: Bottles of 1 pint and 1 gallon.

Literature on request.

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(Continued from Page 1442)

Write Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12.

Clinical Conference on Gynecologic Cancer, October 21 and 22, The University of Texas M.D. Anderson Hospital and Tumor Institute, Houston.

American Heart Association, Inc., October 21, 25, Jefferson Hotel, St. Louis; Rome A. Betts, 44 East 23rd Street, New York 10, Executive Director.

Mid-West Forum on Allergy, October 22-23, Penn-Sheraton Hotel, Pittsburgh; Macy I. Levine, 3347 Forbes Avenue, Pittsburgh 13, Program Chairman.

American College of Gastroenterology Annual Course in Postgraduate Gastroenterology, October 27-29, Bellevue-Stratford Hotel, Philadelphia, Pennsylvania. Write American College of Gastroenterology, 33 West 60th Street, New York 23.

67th Annual Convention of Military Surgeons, October 31-November 2, Mayflower Hotel, Washington, D. C.

13th Annual Conference on Electrical Techniques in Medicine and Biology, October 31-November 1-2, Sheraton-Park Hotel, Washington, D. C.

88th Annual Meeting of the American Public Health Association, October 31-November 4, Civic Auditorium, San Francisco, California; Write American Public Health Association, 1790 Broadway, New York.

Advances in Clinical Chemistry Methods, November 9-11, Frank E. Bunts Educational Institute, 2020 East 93rd Street, Cleveland 6.

American Medical Association Clinical Meeting, November 28-December 1, Washington, D. C.

American Academy of Dermatology and Syphilology, December 3-8, Palmer House, Chicago; Robert R. Kierland, M.D., First National Bank Building, Rochester, Minnesota, Secretary-Treasurer.

Bronson Hospital Fall Clinic Day, Kalamazoo, October 27, 1960.

* * *

BRONSON HOSPITAL FALL CLINIC DAY—Bronson Methodist Hospital of Kalamazoo, Michigan, is planning a "Fall Clinical Conference" on October 27, 1960. This conference will be devoted to pediatric problems and will feature a number of outstanding consultants for morning clinics and afternoon panel discussions in addition to an evening presentation.

* * *

NEW U-M DEAN—Myron E. Wegman, M.D., secretary-general of the Pan American Sanitary Bureau and of the World Health Organization Regional Office for the Americas, is the new dean of the School of Public Health at the University of Michigan. He succeeds Dean Henry F. Vaughan, who retired a year ago.

"In Myron Wegman, we have a new dean held in high esteem in medical, public health, governmental and foundation circles throughout the country," Marvin Niehuss, vice president and dean of faculties at the University, said.

Dean Wegman received his doctor of medicine degree at Yale in 1932 and his master of public health degree at The

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ohns Hopkins University five years later. Author of more han seventy articles in professional journals, he was award- d the Clifford Grillee gold medal in 1958 for "outstanding ervice to the American Academy of Pediatrics." The new lean is chairman of the editorial board of the *American ournal of Public Health*, a contributing editor of *Pediatrics*, nd a member of the editorial board of *Advances in Pedi- trics*.

Doctor Wegman has taught in the public health departments f Columbia, Cornell and Johns Hopkins universities, and in nedicine at Yale, the School of Tropical Medicine in Puerto Rico, and at Louisiana State University.

* * *

MEDICAL SEMINAR CRUISE—The Duke Univer- ity Medical School is sponsoring a postgraduate Medical Seminar Cruise to the West Indies this fall aboard the new *Kungsholm*, Sweden's largest transatlantic liner and cruise hip, which will sail from New York City on November 9, will visit the Virgin Islands and San Juan, Puerto Rico, and will return to New York on November 18. Shipboard lectures on various subjects in medicine, pediatrics and sur- gery will be given. The instructional program will provide twenty hours credit toward postgraduate requirements of the American Academy of General Practice.

* * *

LIFE MEMBERSHIP CITATION—Ernest C. Laetz, business manager of The University of Michigan Hospital, has been voted life membership in the American Association of Hospital Accountants. Laetz received the honor and citation at the 18th Annual Institute on Hospital Accounting and Finance in Bloomington, Indiana. He was recognized for program contributions and service as executive officer and board member of the association. He was institute chairman last year.

* * *

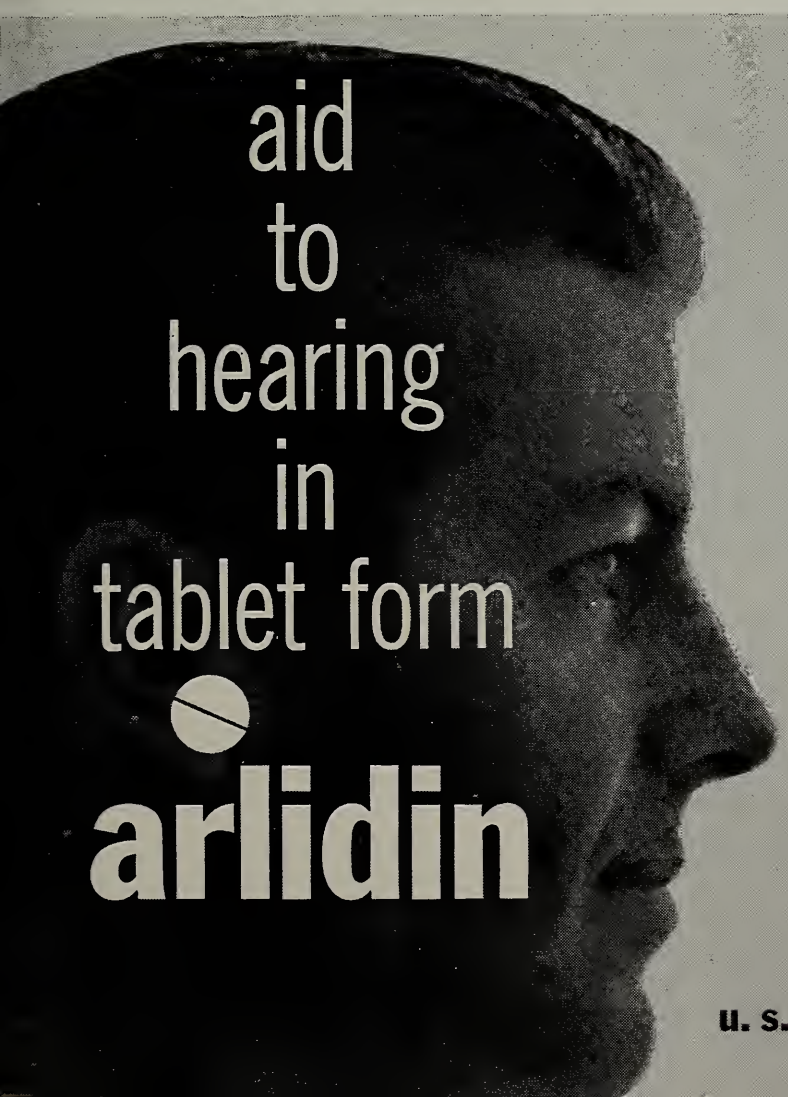
AMERICAN COLLEGE OF PHYSICIANS—The American College of Physicians has announced six Post- graduate courses and locations: Columbus, Ohio, Sept. 19-23; Kettering Institute, New York, Oct. 10-14; Salt Lake City, November; Seattle, Jan. 9-13, 1961; Columbia Univer- sity, New York, Jan. 16-20; and Oklahoma City, Feb. 20-24.

* * *

OFFER RESEARCH GRANTS—Applications for grants for medical and social research in tuberculosis and other respiratory diseases are now being accepted by the National Tuberculosis Association, through its medical sec- tion, the American Thoracic Society (formerly the American Trudeau Society). December 15, 1960, is the deadline for submission of applications for the grant year July 1, 1961, through June 30, 1962. For information, write the Division of Research & Statistics, American Thoracic Society, 1790 Broadway, New York 19, New York.

* * *

VIITH INTERNATIONAL CONGRESS—The sev- enth international Congress on Oto-Rhion-Laryngology will be held in Paris, France, July 23 to 29, 1961. For further information write: Secretariat du Congress; 6 Avenue Mac Mahon, Paris.



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1. Rubin, W., and Anderson, J. R.: Angiology 9:256, 1958.

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The basic question is whether we are to discard the system that has brought us to our present level of health care, and promises much higher levels for the future, in favor of a regulatory strait jacket that stifles initiative, bureaucratizes research, and promises nothing for the future.

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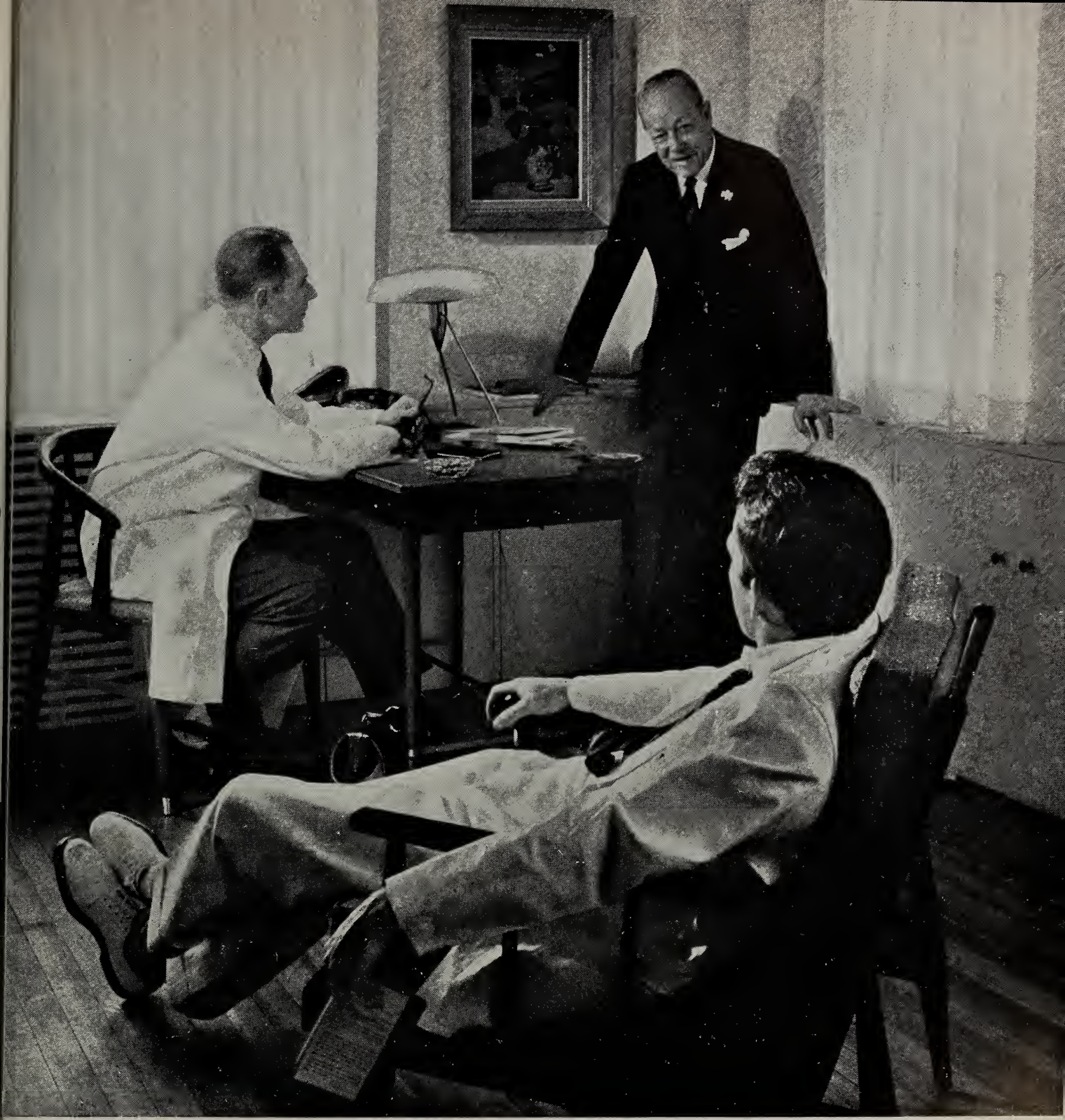
An editorial writer recently made the interesting suggestion that the pharmaceutical industry might have avoided much of the current public interest in its affairs if they had simply restricted themselves to making aspirin tablets and rubbing alcohol, competing only by debating which aspirin dissolves faster. • No one has seriously suggested a return to the "good old days" in therapeutics, but there are apparently some who would like to destroy the system that has produced for us the finest medical care in the history of the world. Whether they attack the freedom of the patient to choose his physician, the freedom of the physician in the practice of his profession, or the freedom of the pharmaceutical industry is immaterial. • If the desideratum is simply maintenance of the status quo in health care, medicine might well have rested on its 19th century laurels and the pharmaceutical industry on aspirin tablets and rubbing alcohol.

This message is brought to you on behalf of the producers of prescription drugs as a service to the medical profession. For additional information, please write Pharmaceutical Manufacturers Association, 1411 K Street, N.W., Washington 5, D. C.



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COMMUNICATIONS

Commissioner Blackford's Letter

Mr. L. Gordon Goodrich
Executive Vice President
Michigan Medical Service
Dear Mr. Goodrich:

The Michigan Department of Insurance has reviewed the request filed with us for an increase in subscribers' rates under the various Michigan Medical Service contracts. As noted in your letter of May 3, 1960, the adjusted rates submitted result in an over-all increase of 19.5 per cent as projected for a two-year period commencing July 1, 1960.

Our examination of the books and records of the Michigan Medical Service has established the fact that the financial position of your corporation is serious and that there exists a need for adjustment of rates to meet this emergency situation.

Recognition has to be given to the fact that health care costs have increased tremendously in recent years along with higher utilization of health care services. At the same time we must consider the ability of the individual subscriber, particularly the senior citizen, to purchase the services made available through your plan. While we recognize the seriousness of your financial plight, we do not believe that the subscriber should bear the full burden of resolving the immediate financial crisis.

For this reason, I cannot approve your Board's request for increases based on a two-year projection. Instead, we have applied the annual claim increment factor and other assumptions utilized in your computations to determine that a one-year projection would amount to 11.5 per cent. This does not include the 3.5 per cent allowance to rebuild surplus, contained in your projection, which we feel compelled to disallow.

If you will submit to us a schedule of rates based on 11.5 per cent, approval will be granted effective July 1, 1960, to run for one year. However, our approval for a rate increase is qualified by the requirement that your Board institute such action as may be necessary to develop a program that will minimize rising costs to your subscribers. On or before July 1, 1961, it will be the responsibility of Michigan Medical Service to present to this Department a program that will develop a more stable rate and benefit structure.

The Department is aware that many of our citizens hold to the opinion that pre-payment plans have been abused in such areas as discriminatory pricing policy, payments by Blue Shield for services not rendered, and excessive use of diagnostic services. We are not in a position to determine the extent and relative importance that should be assessed to these factors, but careful review of these, as well as other areas, should be undertaken and procedures established to prevent misuse or abuse. However, our approval for a rate increase is qualified by the requirement that your Board institute such action as may be necessary to develop a program that will minimize rising costs to your subscribers.

In view of our increasing birth rate, reclining mortality rate and increase in population because of immigration from other states, it is apparent that we shall experience for some

(Continued on Page 1450)

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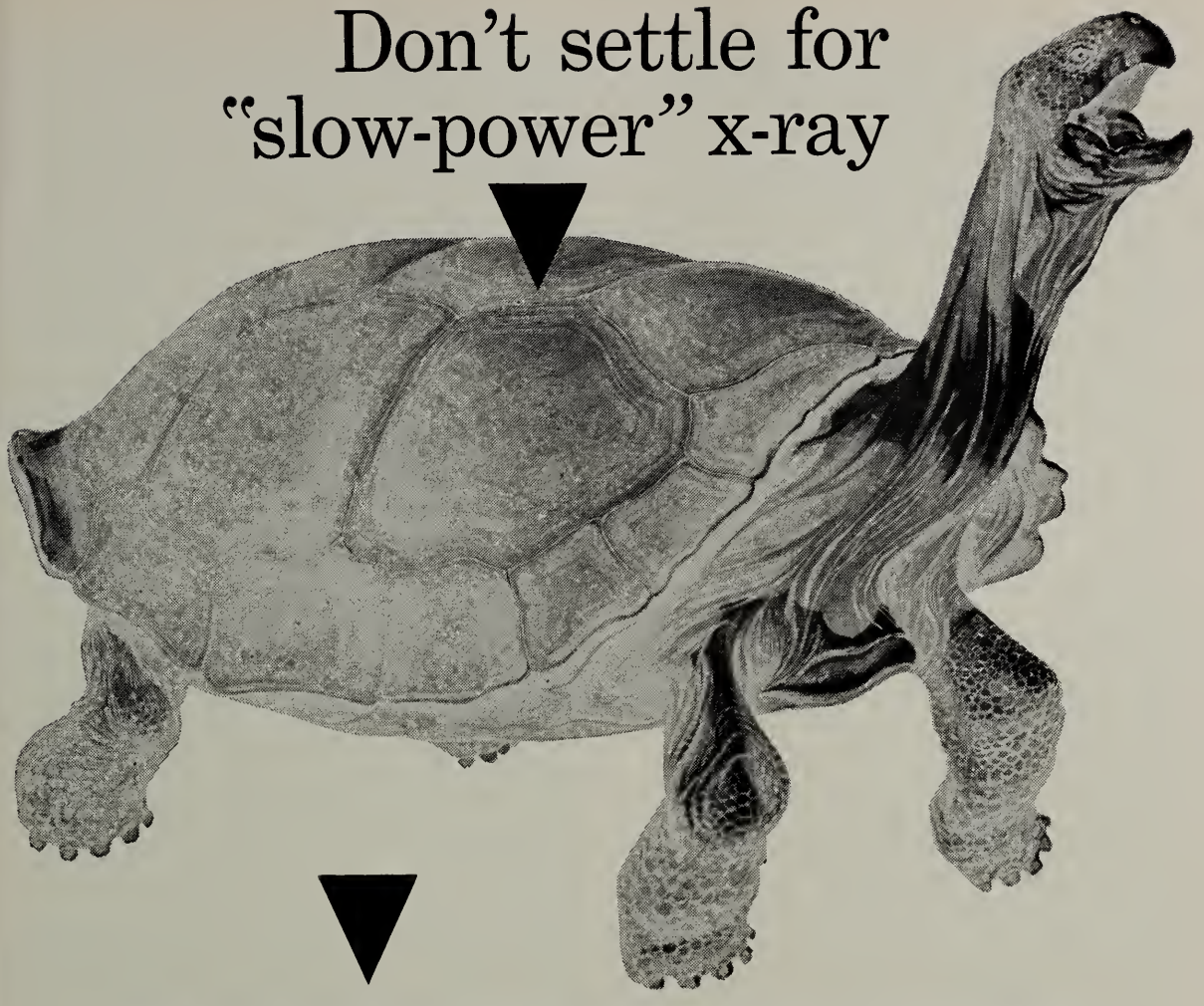

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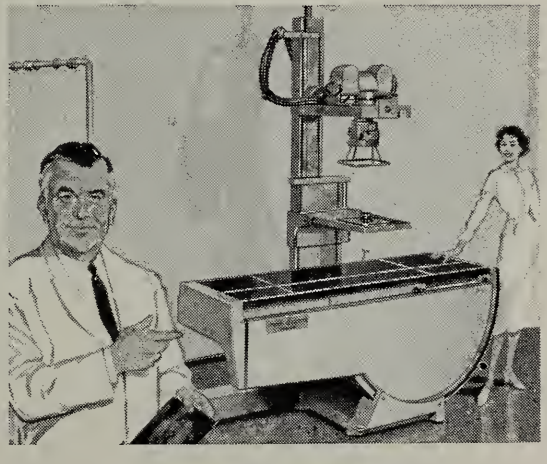

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(Continued from Page 1448)

time to come an increasing demand for medical care and the use of medical care facilities. It is imperative that we provide to our citizens the assurance that health care will be made available to them, when they need it and at the lowest possible cost.

Because approximately one-half of Michigan's population participates in the Blue Shield Plan, it is important that you work with those persons most intimately concerned with the services your plan provides. Any program developed should be through the cooperative efforts of the Michigan Medical Service and other groups including the medical profession, trade union organizations, employer groups and representatives of the general public. I am sure you will find them responsive to the obligation to work together in making the Blue Shield Plan operate effectively and with such economies as may be possible.

June 15, 1960

Sincerely,
FRANK BLACKFORD
Commissioner of Insurance

Wilfrid Haughey, M.D.
The Editor, Journal of the Michigan State Medical Society
Dear Dr. Haughey,

Thank you for sending the three copies of your May issue, incorporating the extracts from my article "Old Age; The Completion of a Life Cycle." I think the issue is an excellent one and congratulate you on presenting it.

There is one minor error so far as my description is concerned, which is that my qualifications are given as M.D., F.R.C.P. The latter is a great distinction to which I have not yet attained, and lest it should be thought that I wish to sail under false colors, I would be grateful if you could make a small amendment, to be published in your next issue, to the effect that my qualifications are M.D., M.R.C.P.

With my renewed thanks and kind regards,

Yours sincerely,
T. N. RUDD, M.D., M.R.C.P.
Consultant Physician, Geriatric Unit

Shirley, Southhampton
June 21, 1960

Dear MSMS Member:

I should like to call your attention to an investment opportunity that pays 3¾ per cent per annum.

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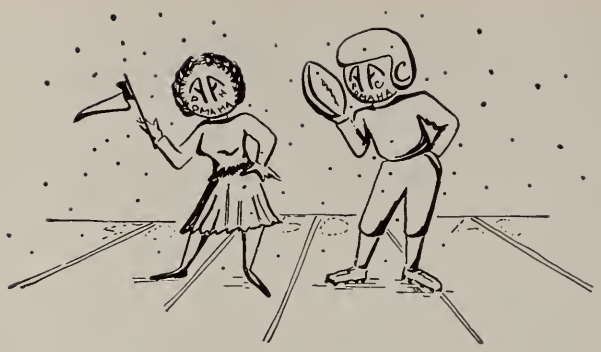

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The Doctor's Library

Acknowledgments of all books received will be made in th column, and this will be deemed by us as full compensatic to those sending them. A selection will be made for revie as expedient.

ENCYCLOPEDIA OF MEDICAL SYNDROMES. By Robe H. Durham, M.D., F.A.C.P., Physician-in-Charge, Divisio of General Medicine, Henry Ford Hospital, Detroit. Fore word by T. R. Harrison, M.D. Professor and Chairmar Department of Medicine, Medical College of Alabama Birmingham. New York: Paul B. Hoeber, Inc., Medica Division of Harper & Brothers, 1960. Price, $13.50.

The word syndrome and its technical meaning signifie the usefulness of this new book in a new encyclopedic field Groups of diseases, groups of symptoms, groups of abnorma circumstances or conditions may (many or a few) be groupe into a few frequently recurring conditions which is not specific disease but is recognized as a "syndrome." Th tendency or the disability or the occurrence may give name to the particular group of conditions under considera tion. There is probably no limit to the items which ma be considered.

Dr. Durham, the author, is the director of internal medi cine in Henry Ford Hospital in Detroit. He and his friend have gathered together almost 1,000 condition syndromes which are collected with short but revealing description references to other names and references to places in litera ture where the description may be found.

This work is original, not a rewriting of anything and probably most of these syndromes cannot be found listed in any dictionary or textbook. This has been a gigantic task and well done. It should be a very valuable reference book especially to the diagnostician or the student. Another Michigan-produced book.

YOUR HEART. A Handbook for Laymen. By H. M. Marvin, M.D., Associate Clinical Professor of Medicine, Yale University School of Medicine; Past President, American Heart Association; former member National Advisory Heart Council (U.S. Public Health Service). 335 pages. Garden City, New York: Doubleday & Company, Inc., 1960.

This excellent volume is written for the layman interested in, or himself afflicted, with heart disease.

The anatomy and physiology of the heart, the more common types of heart disease, surgical and medical treatment, and diagnostic procedures are well presented. Unfortunately, there are too few illustrations. There is some repetition in the chapters dealing with the various heart conditions. This was done intentionally by the author. The reader is in this way adequately informed by reading only the chapter dealing with his specific condition.

The author has the ability—the talent to simplify without seeming to "talk down" to the reader. The language is

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non-medical for the most part with medical terms subtly introduced and clearly defined.

A fine glossary is appended.

The book is doubly valuable to the busy physician. A life-saver, perhaps for the patient, it increases the patient's understanding of his condition, treatment and prognosis, thereby assuring his co-operation and assuaging his many fears. A time-saver for the physician, it eliminates the need for repeated detailed explanation to the patient and his family.

This book should definitely be on the office bookshelf for patients to borrow and read.

L.P.S.

EXPERIMENTS AND OBSERVATIONS ON THE GASTRIC JUICE AND THE PHYSIOLOGY OF DIGESTION. By William Beaumont, M.D., Surgeon in the United States Army. Facsimile of the original edition of 1833 together with a biographical essay, A Pioneer American Physiologist, by Sir William Osler. New York: Dover Publications, Inc. 1960. Price, $1.50.

This stiff paper covered volume is a facsimile of the original publication by William Beaumont in 1833, listing all of his observations and experiments and studies with a preface and introduction and beginning on page 31, preliminary observations, experiments, microscopic examination, in all occupying 275 pages. In addition, at the beginning of the book, is an essay by William Osler, M.D., a pioneer American physiologist, who presented the address at the St. Louis Medical Society, October 4, 1902.

This is a very interesting and historically valuable book of a special interest to Michigan for several reasons. Beaumont did his work at Mackinac Island in Michigan and much of the research work in bringing this material up to date has been done here in Michigan. The Michigan State Medical Society has been instrumental in acquiring this property, originally the American Fur Company, and restoring it to its original form. We recommend this book for interesting reading material.

HELP-BRINGERS: Versatile Physicians of New Jersey. By Fred B. Rogers, M.D., Temple University School of Medicine, Philadelphia, Pennsylvania. Foreword by Henry A. Davidson, M.D., Editor, *Journal of the Medical Society of New Jersey*. New York—Washington—Hollywood: Vantage Press, 1960. Price, $2.95.

Doctors of medicine, more or less, have other interesting avocations and sometimes even entirely different methods of life or activities. This book describes the life and activities of twelve New Jersey physicians who were many other things. One was a friend of Benjamin Franklin; others were a Tory satirist, a general, a governor, a congressman, a poet, and so on. The stories are most interesting and encouraging, as showing that the medical man, in addition to being a worthwhile physician, has many other occupations.

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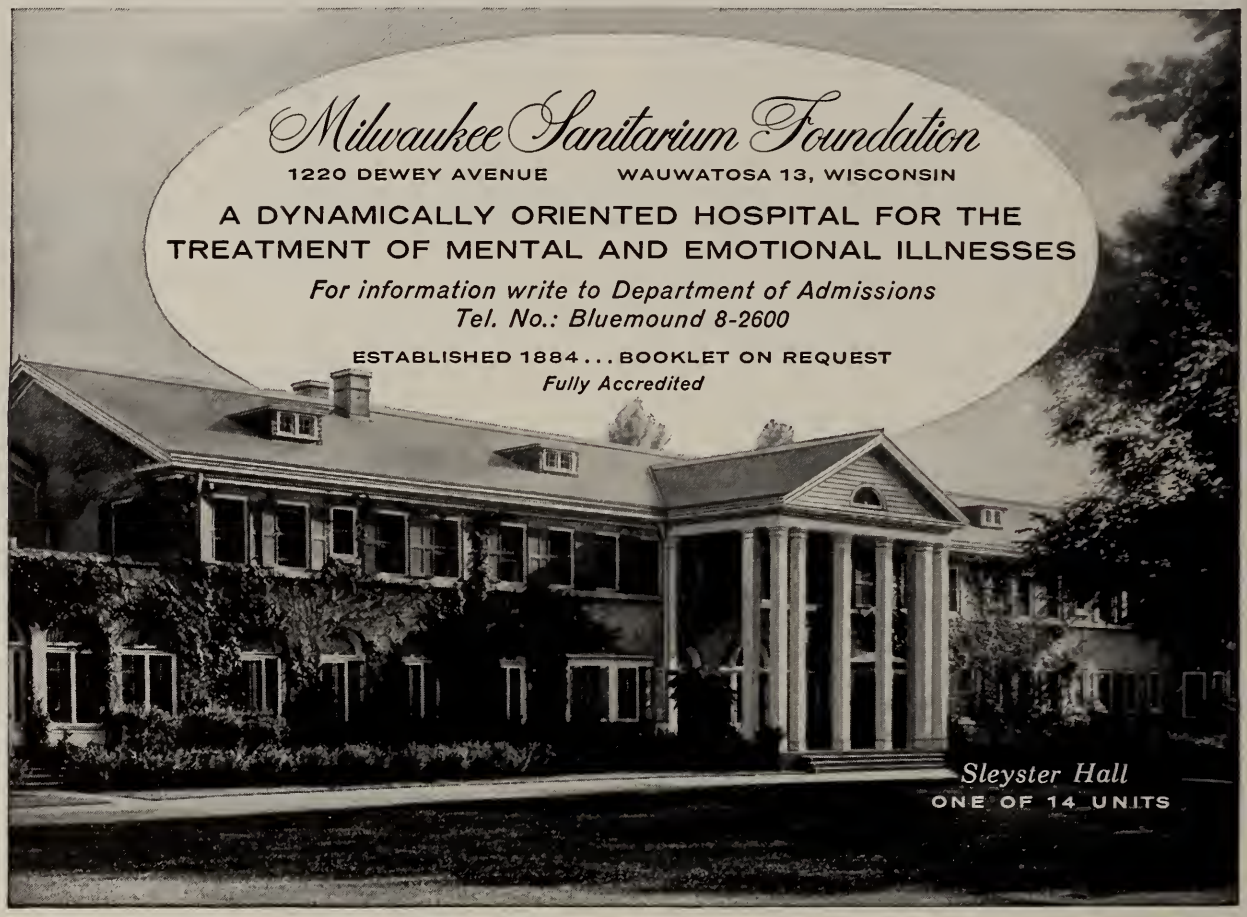

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STATE MEDICAL SOCIETY

Volume 59 Number 10
October, 1960

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All communications regarding advertising and subscriptions should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone IVanhoe 2-1158.

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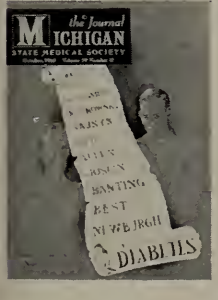

THE COVER

This number of the Journal is dedicated to Diabetes and the cover art salutes eleven "Pioneers in Diabetes" for their contributions in the medical attack against this disease.

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DELEGATES TO A. M. A.

Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Creek	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

*To fill unexpired term of R. W. Shook, M.D., deceased.

"Campaign for Freedom" Advances in Phase II

Members of the Michigan State Medical Society are now in the important Phase II of the MSMS Campaign for Freedom. And even though Phase I was a success, we can win the ultimate victory only by militant, intelligent and loyal service now.

Congratulations must be extended to many individual Michigan doctors of medicine for helping to put across Phase I of the Campaign. The Mills Bill, supported by your efforts, was approved by Congress and was signed by the President. The key vote came in the upper chamber when Senator Kennedy and other ultra-liberals backed a Forand-type amendment to the bill. In repudiation of a key plank of the Democratic platform (government health services for all the aged financed by an additional Social Security tax), and in an equally emphatic rebuke to the Democratic candidate for president, 19 of Senator Kennedy's colleagues joined with 32 Republicans to bury (51-44) the Forand issue once and for all in this session.

* * *

BITTER IN DEFEAT, Senator Kennedy vowed to "take the medical care issue to the people this fall," although Capitol insiders wonder which "people," since it was his own party's southern Democrats who voted against his proposal—and the doctors wonder what "medical care issue," in view of the fact that the legislation as passed solves the financial problems of medical care for the aged who cannot pay their own way.

The final version of the Mills Bill:

1. broadens the present state-administered welfare assistance programs with increased medical care funds for those persons dependent on social aid;
2. sets up a new federal/state grant-in-aid program to provide assistance to those people in the over-65 group who do not qualify for Old Age Assistance but are unable to pay for expensive health care costs out of their own resources;
3. lessens the penalties on social security recipients who earn more than $1200 annually, minimizing the loss of OASDI benefits for those able and willing to work after their formal retirement.

A provision which would have blanketed physicians into compulsory coverage of the social security act was deleted by the Senate before final passage.

* * *

DURING PHASE I of the Campaign for Freedom, it became increasingly clear that Medicine's job actually has only begun. There can be no question that the ultra-liberals will continue to press for adoption of socialistic legislation in the next and succeeding Congresses. Only one battle has been won. Between now and the

(Continued on Page 1479)

HIGHLIGHTS of MSMS Council Meeting

Meeting of August 24, 1960

Some sixty-six items were presented to and discussed in details by The Council at its August meeting in Lansing at which 20 members of The Council were present. The meeting was also attended by Don M. McLean, M.D., President-Elect of the Wayne County Medical Society and W. N. Hubbard, Jr., M.D., Dean of the University of Michigan Medical School.

- B. T. Montgomery, M.D., of Sault Ste. Marie, resigned as Councilor of the Twelfth District, effective September 25. The Council placed a vote of thanks on its minutes to Doctor Montgomery for his long and splendid service as a Council member.
- Request of Michigan Department of Health for MSMS co-sponsorship of Michigan Conference on Comparative Medicine, October, 1961: an observer to the Planning Committee meeting of September 15 was authorized; decision regarding sponsorship is to be on The Council's September 25 agenda.
- Councilor Conferences. Chairman Meier stated he had received reports of seven Councilor Conferences held up to August 23. The balance of the Conferences are scheduled for late August and early September.
- AMA letter containing resolutions of its 1960 (June) House of Delegates meeting urging certain actions by constituent state and component county medical societies, was reviewed and ordered referred to all Michigan county medical societies. Subject matter of the three resolutions were: (a) National Foundation; (b) role of physicians in public affairs; (c) prospective medical students.
- Michigan Hospital Association request for exchange of representation between its and the MSMS Legislative Committees was approved: The Chairman of the MSMS Legal Affairs Committee was authorized to accept invitation to serve on the MHA Legislative Committee and the Chairman of the MHA Legislative Committee (John J. Powers) was invited to serve in a similar capacity on the MSMS Legal Affairs Committee.
- AMA Woman's Auxiliary President Mrs. Wm. G. Mackersie, of Detroit. The Council recognized the high position accorded this Michigan lady and instructed that suitable recognition be rendered to her during the 1960 MSMS Annual Session in Detroit.
- Wilfrid Haughey, M.D., long-time Editor of JMSMS and former Secretary of the Society, was recognized by The Council on attaining his 80th birthday (August 10, 1960).
- New Field Secretary. After reviewing the advice of the Wayne County Medical Society representatives who attended this meeting, the special hiring committee selected E. Ray Scott for the position.
- More detailed information regarding Council deliberations. President-Elect K. H. Johnson, M.D., read a statement appearing in August 18, Detroit Medical News, which suggested more detailed information re Council actions. Doctor Johnson reported that The Council minutes now have reached over twenty pages per month and that the verbatim reports of The Council discussion did not seem feasible. Detailed as they are, the minutes would require amplification by a member of The Council if a particular question arose among county medical society officers or delegates. All Councilors are more than willing to answer any questions and provide any desired information upon request. The following motion was adopted unanimously by The Council:

  "The Council, authorized by delegated instruction from the House of Delegates to communicate its deliberations fully to the membership of MSMS, has forwarded to the component county societies the identical official minutes received by the individual Council members. If, however, the membership desires further detailed information, The Council cordially invites a representative of any component society to be a guest observer at any Council meeting."

  Monthly progress report on new MSMS headquarters building was presented by President-Elect K. H. Johnson, M.D., multiple listing of the present MSMS headquarters at 606 Townsend St., Lansing, was authorized for a period of 60 days (this allowed 40 members of the Lansing Realty Board the opportunity to sell this property).

  Doctor Johnson reported that, upon Council authorization, he had from time to time signed certain change orders in the headquarters building and was happy to report that the total changes to date, exclusive of a few specifically requested by MSMS, amounted to only 1½ per cent of the adjusted construction cost of the new building. The Council agreed that this was an extremely low figure.
- Campaign for Freedom. Progress report on this project was presented, including action taken by the Congress on the Mills Bill (care to the aged).

(Continued on Page 1476)

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Highlights of MSMS Council Meeting

(Continued from Page 1474)

The second phase of the Campaign—to take the MSMS message to the public and to encourage doctors to continue their interest in this election year—required additional financing so The Council authorized the expenditure of an additional $5,000.00, between now and the September 25 meeting of Council, to finance the Campaign for Freedom. Discussion brought out that specific recommendations for improving the present welfare system in Michigan in caring for the aged be developed on the State level similar to action being taken by the Washtenaw County Medical Society and that this would be desirable as a presentation to the House of Delegates. The Council stressed that the individual Councilors should go to county society meetings and urge members to become more active in their community's political and economic affairs—if MD's are not part of the community, the community will soon forget them. This is especially true in the case of newer doctors in communities. Every attempt must be made to achieve public support for Medicine's position.

- Resolution on aging. The Council unanimously adopted this following resolution:

  WHEREAS, a healthy, alert, and vital aged population constitutes one of this country's greatest human assets; and

  WHEREAS, the well being of our senior citizens depends on many factors, their environment, mental attitude, financial resources, and physical health; and

  WHEREAS, new techniques of "whole person treatment" of the senior patient in such areas as pre-retirement planning, group housing, and preventive medicine counselling, will help this group spend their golden years in comfort, health, and dignity; now therefore be it

  RESOLVED: That the members of the medical profession continue to explore new methods of treating the elderly patient; and be it further

  RESOLVED: That the medical profession proposes and supports the following 10-point program as a positive approach for preserving the health care, financial resources, and human dignity of the senior citizen:

  1. Removal of compulsory retirement provisions by industry and labor.
  2. A program to provide work opportunities for the aged.
  3. Encouragement of state and community governments to share voluntary health insurance premiums for those over 65 who need financial assistance.
  4. Participation by the medical profession in the 1961 White House Conference on Aging.
  5. Increasing cash benefits to those receiving Old Age Assistance.
  6. Expansion of OAA to share the voluntary health insurance costs of "marginally indigent" persons (those who are independent except for unusual trouble).
  7. Establishment of a privately-financed plan comparable to the Federal Deposit Insurance Corporation, underwriting health insurance premiums of those unable to maintain them.
  8. Construction of an experimental housing project for the aged near a medical school for scientific study of housing needs relative to health.
  9. An educational program emphasizing pre-retirement planning programs beginning at age 45.
  10. Emphasis on a preventive medicine program to include periodic health appraisals; control of communicable disease; improving patient care and rehabilitation in nursing homes; and the developing of chronic disease hospital units.

- Beginning with the Annual Session of 1961, out-of-Michigan guest essayists on the program will receive small honoraria as well as expenses. This action of The Council is necessary in order that the best talent be obtained for the MSMS Annual Session programs.
- Schedule for The Council's Annual Session of January 26-27-28 and also for the County Secretaries-Public Relations Seminar, January 28-29, 1961, both meetings to be held in Lansing, was approved.
- A proposal by the Carrier to the Michigan Department of Insurance to seek a ruling so that Wayne County Medical Society members, not now covered by the Wayne County Group Life Plan, might be given the opportunity to purchase the MSMS Group Plan was deferred until the advice of the Wayne County Medical Society's Council is obtained.
- Congratulations were authorized to be sent to J. W. Towey, M.D., of Powers, who on September 9 completed 38 years as an active member of MSMS and his component Society which is honoring him on this date.
- Legal Counsel's Report included opinions on: (a) blood alcohol determinations; (b) interpretation of a particular fee in the Uniform Fee Schedule for Governmental Welfare Agencies; (c) sterilization procedures.
- Public Relations Counsel's Report included recommendations from eleven Regional Conferences on Aging and a summation of same for presentation

(Continued on Page 1478)

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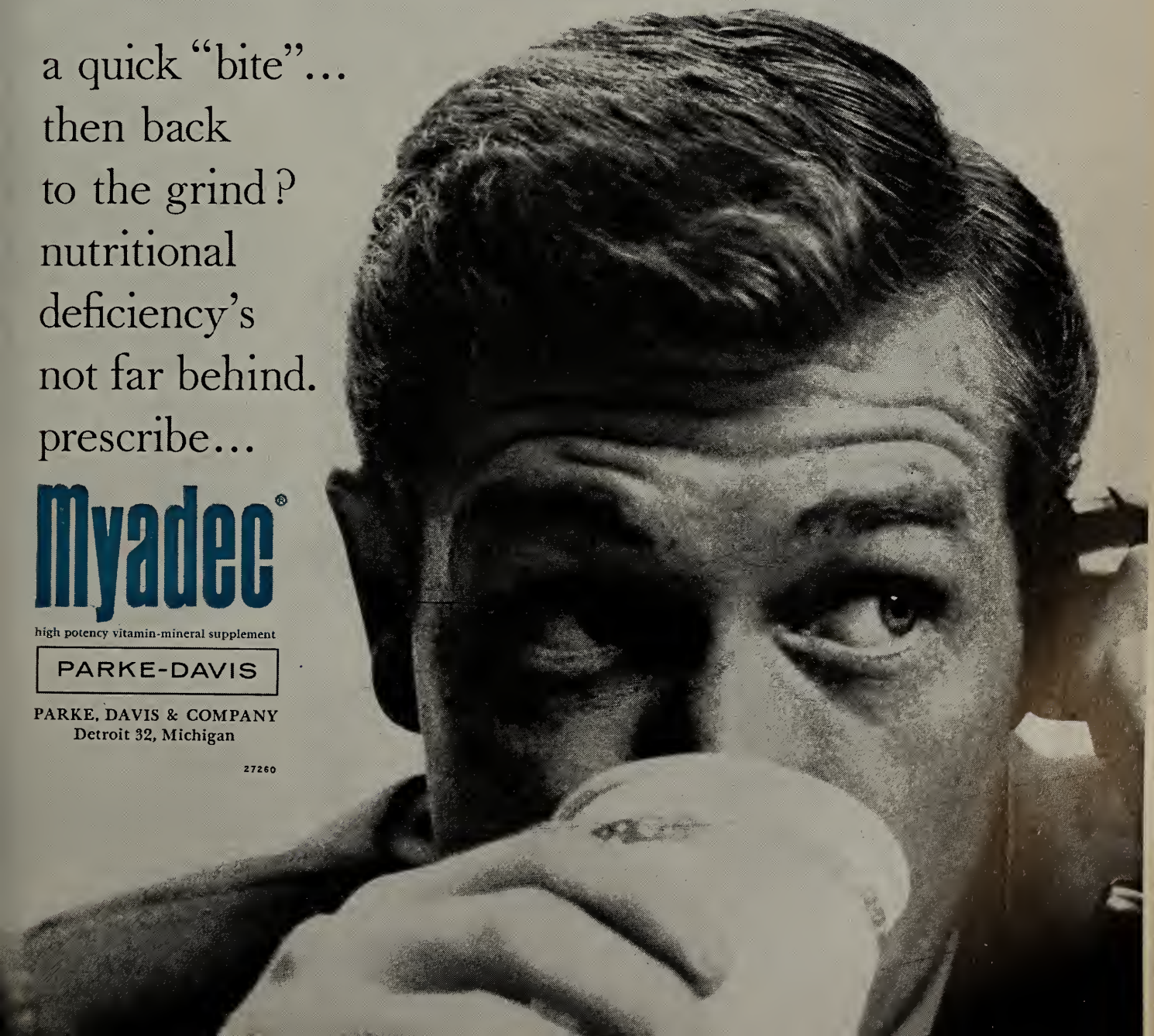

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Highlights of MSMS Council Meeting

(Continued from Page 1476)

to the Michigan Commission on Aging, which The Council authorized to be sent.

- Committee reports: (a) Vocational Rehabilitation, meeting of June 30; (b) Wayne Councilor District Medical Care Insurance Committee, August 28; (c) Courses on Medical Economics and Ethics, August 10; (d) Scientific Radio, August 11; (e) progress report of ad hoc Committee on Caro Hospital Staff Situation.

- J. Joseph Herbert gavel. This significant gavel was presented from Mrs. Herbert through Councilor Wm. M. LeFevre, M.D., of Muskegon, to the Michigan State Medical Society and was accepted with thanks.

- The following MSMS representation was authorized: (a) to 1960 State Conference on Aging to be held in Lansing, September 21-22:
  F. W. Baske, M.D., 923 Maxine St., Flint
  E. F. Crippen, M.D., 126½ State St., Mancelona
  R. L. Fitts, M.D., 50 College Ave., S.E., Grand Rapids
  A. Hazen Price, M.D., 62 W. Kirby, Detroit 2
  Jack Rom, M.D., 8600 W. McNichols, Detroit 35
  C. Howard Ross, M.D., 715 University Ave., N. Ann Arbor
  F. C. Swartz, M.D., 720 Seymour St., Lansing
  V. K. Volk, M.D., Saginaw County Hospital, Box 65, Saginaw;
  (b) AMA Medical Disciplinary Committee, meeting in Chicago, September 12-13: Executive Director Wm. J. Burns was authorized to attend this meeting; (c) To American Association of Medical Assistants Convention, Dallas, in October: Glenn E. Millard, M.D., Detroit and J. W. Rice, M.D., Jackson, were requested to attend.

- Appointments: (a) Committee to Delineate and Coordinate Program to Implement Insurance Commissioner's Recommended Educational Program: H. J. Meier, M.D., Coldwater, Chairman; K. H. Johnson, M.D., Lansing; H. F. Falls, M.D., Ann Arbor; G. Thomas McKean, M.D., Detroit; Wm. M. LeFevre, M.D., Muskegon; H. H. Hiscock, M.D., Flint; D. N. Sweeny, Jr., M.D., Detroit; F. C. Swartz, M.D., Lansing; R. W. Teed, M.D., Ann Arbor; F. P. Rhoades, M.D., Detroit; J. S. DeTar, M.D., Milan; and H. W. Brenneman, as Advisor; (b) Committee to meet with Michigan State Board of Registration in Chiropody: L. A. Drolett, M.D., Chairman, Lansing; Wm. H. Blodgett, M.D., Detroit; B. M. Harris, M.D., Ypsilanti; R. J. Mason, M.D., Birmingham; G. Thomas McKean, M.D., Detroit; (c) Centennial Committee for 1965 Annual Session: K. H. Johnson, M.D., Chairman, Lansing; Milton A. Darling, M.D., Detroit; G. B. Saltonstall, M.D., Charlevoix; G. W. Slagle, M.D., Battle Creek; L. W. Hull, M.D., Detroit; R. J. Hubbell, M.D., Suttons Bay; W. S. Jones, M.D., Menominee; C. E. Umphrey, M.D., Detroit, and the future Past President until 1965; (d) 1961 Michigan Clinical Institute Program Committee: John W. Sigler, M.D., Chairman; Henry Vandenberg, Jr., M.D.; Joseph L. Posch, M.D.; Benjamin I. Johnstone, M.D.; Aaron Z. Rodgers, M.D.; George S. Fisher, M.D.; Charles G. Jennings, M.D.; and Harold C. Mack, M.D., all of Detroit; (e) Mr. Donald Walchenbach (representing Michigan Hospital Association) to Committee on National Defense; Roger B. Nelson, M.D., Ann Arbor; Earl F. Wolfman, M.D., Ann Arbor; Nicholas Gimbel, M.D., Detroit, to Committee on National Defense as Advisors.

- Future Meetings. The Council decided the dates and place of its Mid-summer session of 1963; also to hold its Annual Session of 1967 in Grand Rapids the week of September 24-29. Future Annual Sessions, therefore, are as follows:

  1961—Grand Rapids, September 24-29
  1962—Detroit, September 23-28
  1963—Grand Rapids, September 22-27
  1964—Detroit, September 27-October 1
  1965—(Centennial Convention) Detroit, September 19-24
  1966—Grand Rapids, September 25-30
  1967—Grand Rapids, September 24-29
  1968—Detroit (dates not set)
  1969—Grand Rapids (dates not set)

MICHIGAN MEDICAL MEETINGS AND CLINIC DAYS

December 1-3	Western Surgical Association	Detroit
January 28-29	MSMS County Secretaries—Public Relations Seminar	East Lansing
March 8-10	Michigan Clinical Institute	Detroit

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THE PROVIDENCE HOSPITAL ANNUAL CLINIC DAY will be held on Wednesday, October 26, 1960, at 2500 West Grand Boulevard, Detroit. Registration will begin at 8:50. Participants in this annual clinic day will be: Francis W. Dwyer, M.D., Chief of Staff, Providence Hospital; A. J. Boyle, M.D., Associate Professor of Experimental Medicine, Wayne State University College of Medicine; Richard J. Bing, M.D., Professor and Chairman, Department of Medicine, Wayne State University College of Medicine; George W. Morley, M.D., Department of Obstetrics and Gynecology, University of Michigan Medical Center, Ann Arbor; D. Emerick Szilagyi, M.D., Department of Surgery, Henry Ford Hospital, Detroit; William N. Hubbard, M.D., Dean, University of Michigan College of Medicine, Ann Arbor.

In the afternoon, there will be section meetings for medical, surgical, and obstetrics and gynecology. General Chairman of the Annual Clinic Day is Eugene A. Otlewski, M.D.

Campaign for Freedom

(Continued from Page 1473)

next session of Congress, it will be our individual and collective obligation to:

1. As PATRIOTIC AMERICANS, stand for the cause of freedom against the tyranny of a new socialistic variety of social security.
2. As CITIZENS, participate in the national and state political campaigns to elect candidates who believe as we do, and to defeat candidates who are pledged to promote legislation which in our opinion would be detrimental to the best interests of our patients and our profession.
3. As DOCTORS OF MEDICINE, to convince our Senior citizens, and the public at large, that the best means whereby the aged can gain and maintain maximum health, and the optimum in medical care, is through adherence to and support of the progressive program for the care of the aged developed by the medical profession.

Every member of MSMS is urged also to use the new publications, which replaced the "Question of Freedom" pamphlet.

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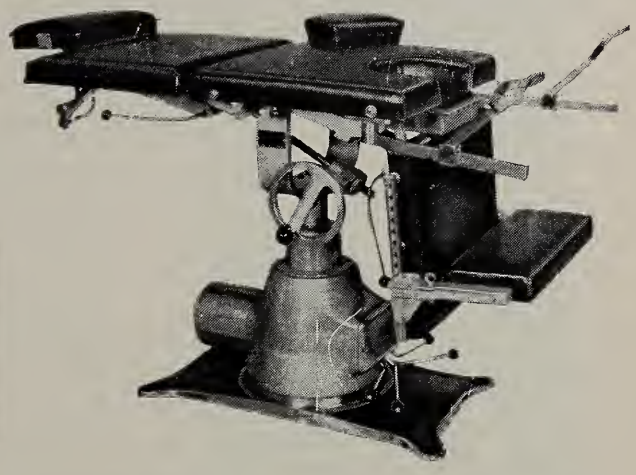

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The objective of therapy is the approximation of the physiological norm.

This is most satisfactory when it can be accomplished by dietary manipulation. The control of elevated serum cholesterol through relatively simple changes in the dietary pattern of the patient puts nature's own processes to work most effectively to achieve the objectives of treatment.

The dietary approach does more than correct the serum cholesterol problem. Because overweight, together with improper eating patterns, is so often involved, the prescription of corrective diet helps the patient to help himself by establishing sound nutritional practices.

For the prophylaxis and prevention of hypercholestemia, the dietary approach affords the advantages of simplicity and economy. Diet therapy is for the long-term management of a chronic condition, while drug therapy is most efficient for acute situations.

The development of atherosclerosis is a slow process. It is believed that the onset of this condition is in early adulthood, but its clinical symptoms take as many as 20 years to manifest themselves. Simple changes in diet serve to keep the blood cholesterol concentration at an acceptable level.

Dietary therapy has other significant advantages over medication as follows:

1. Dietary adjustment involves little or no expense to the patient, whereas drugs are costly.
2. Dietary therapy may be made with complete safety—even for pregnant females.
3. Dietary therapy produces no side effects, whereas there is not as yet sufficient clinical evidence as to the long-term effects of drugs.
4. Dietary therapy brings about reduction in serum cholesterol through normal body processes, as yet not fully understood. On the other hand, some drugs can leave in the body accumulations of cholesterol precursors.
5. Dietary procedures do not usually generate new compounds in the blood which interfere with the chemical determination of blood serum cholesterol.
6. Dietary therapy offers a solution to the related problems of obesity which drugs do not.

Elevated serum cholesterol has long been linked to an imbalance in the ratio of the type of fat in the diet. Reductions in cholesterol levels have been achieved repeatedly, both in medical research and practice, through control of total calories and through replacement of an appreciable percentage of saturated fat by poly-unsaturated vegetable oil. An important measure in achieving replacement is the consistent use of poly-unsaturated pure vegetable oil in food preparation in place of saturated fat.

* * *

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"As Others See Us"

By R. W. Teed, M.D., Chairman,
MSMS Public Relations Committee

PART I

REPORT OF AMA PUBLIC RELATIONS INSTITUTE

The two-day seminar opened in Chicago on September 1 with Leo Brown, Director of the AMA Communications Division, beginning the session. He said that in view of the recent discussion of the medical problems of aging, some people felt that the public was dissatisfied with medicine's efforts in this regard. However, he felt that this problem was selected for its emotional appeal and because politicians would like to transfer to themselves the image of "Protector of the Aged." They also are attempting to persuade the old folks to shift from personal responsibility to federal security, whatever that is.

He asked the question: "Are we communicating, or are we hiding our light?"

The object of the seminar was to answer that question.

* * *

THE KEYNOTE ADDRESS, "The Importance of the Public Image Versus Reality," was given by Pierre Martineau, Director of Research and Marketing, *Chicago Tribune*. He stated that people react to brand names rather than to the products themselves and that "image" is more important than reality. Many physicians believe that if we give the public the facts about medicine, people will believe our story. But the fact is that people exercise "receptive perception" and think in terms of cartoon or psychological images. This involves feeling or emotional reaction, and rationality seldom enters in. However, images can be modified, as was done by Chevrolet, Pepsi-Cola, menthol cigarettes, et cetera, without much recourse to facts. Medicine's problem is to present to the public a favorable image.

* * *

"HOW PEOPLE SEE DOCTORS" was presented by a panel consisting of an editor, a physician and a TV executive.

George Brandenburg, Midwest Editor of *Editor and Publisher*, Chicago, stated that, in his opinion, medical press relations were much better than they were 25 years ago, but further improvement was essential. Too many doctors are envious of their colleagues and collectively prevent them from telling the public what it wants to know. There is tremendous public interest in medicine, but due to a widespread policy of silence regarding the press, the public believes that medicine is a secret society. News stories about

medicine are valueless without names and places, and here, something has to give. Also, patients want to be told more about their illnesses, and to be allowed to co-operate in their treatment. The public frequently complains that doctors do not participate in community activities or assume civic responsibility, and activities of physicians in this regard should be portrayed. There is always a minority which dilutes the good done by the majority and distorts the image in the public mind. In giving a fair image we must avoid being phony.

Russell Roth, M.D., member of AMA Council on Medical Service, Erie, Pennsylvania, gave a physician's image of the physician. He is well trained, scientific and able to cope not only with the problems of medicine but also taxes, insurance forms, et cetera. He is not wealthy, but has a good home and status to maintain. His gross income is substantially reduced by overhead, taxes, contributions, etc. He is high on the list of fund-seekers, and usually contributes. He laments paperwork and regrets his ability to keep up with the literature. He will accept committee appointments but usually does little between meetings.

Herbert A. Carlborg, Director of Program Services for CBS TV, New York, stated that, as compared with other professions, the physician is high in TV circles, and is always placed in a favorable light. Actors and directors enjoy medical themes. The use of the "white coat" in drug advertising has been eliminated, and TV turns down millions in drug advertising. CBS employs a physician who meets with the medical directors of product companies and reviews their advertising claims. In general, Mr. Carlborg felt that the TV image of medicine is high.

* * *

"WHY PEOPLE SEE DOCTORS THAT WAY" was presented by a panel consisting of a sociologist, a medical cartoonist, and an insurance consultant.

Prof. Raymond Mack, Department of Sociology, Northwestern University, Evanston, Illinois, felt that the public's image of physicians was not entirely favorable. Medicine has not solved its problem by labelling the opposition as "socialists," and there are good reasons for many of our socialistic trends. Under the older, semi-feudal system, industries were small and people took care of each other, but under the present big industrial set-up, workers do not know each other, and the wage contract substitutes for individual help. Other contracts, such as unemployment benefits, social security, and other supplemental contracts bring the government into the picture. The laboring public believes these are essential, and if medicine objects it is labelled reactionary.

Nicholas Dallis, M.D., creator of the comic strip "Rex Morgan, M.D.," Scottsdale, Arizona, believes that the public would like a doctor with the image of Jesus Christ who would "lay hands on them" and heal them. The conscious image of the public has slipped from that of a physician whose word is law to one who is questioned. Twenty-five years ago, few medical students married, but this has changed, and by the time the average physician enters practice, he has been married several years and has children. This means he has learned to be a business man and collects his bills better, which has not improved the public's image. Also, drugs have improved therapy so much that the physician does not spend as much time with the patient as formerly, and hence has less time to influence the patient.

James E. Bryan, consultant, Medical Administration and Medical Care Prepayment, Stanford, Connecticut, believes that contemplating our image can be an escape device so that we do nothing about reality. Every group has an "interior" image which is its own, and an "exterior" image which is that of the public. The nature of the mission of medicine has produced an image of nobility, which was greater in the days when the physician had to struggle with disease more or less alone. Today, drugs have changed this, and the personality of the patient has become eclipsed, regrettably. The public image of medicine is ambivalent, since on the one hand there is awe of science, but on the other hand there is fear that a Frankenstein may eventually take over. Medicine must realize that treatment, for the patient, is a right, and unite with sociology, chemistry, bacteriology, pharmacology and pathology to give the public all the benefits of modern knowledge.

* * *

AT THE LUNCHEON, Ernest B. Howard, M.D., Assistant Executive Vice President of AMA, spoke on "The Political Outlook," and stated that Senator Kennedy has been pushed into the doctrinaire position that the old folks must be made wards of the government, regardless of their wishes in this regard, although his own party has rejected this position. He stated that Blue Cross needs overhauling, since some officials have approved of the Social Security approach, and none took a strong, unequivocal position against the Forand Bill. Certain businesses likewise approved a payroll deduction because this reduced income and corporation taxes. Medicine lost the press in the recent campaign, and labor succeeded in creating the impression that there was a crisis which could only be managed by governmental action. The press uniformly predicted the passage of the Forand Bill. Medicine's view, that the aged are not in a total position of indigency, must be presented at the coming White House Conference. The AMA favors the Mills Bill because it believes this bill answers the problem.

(Part II of the Report will appear next month.)

(Continued on Page 1486)

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A New Book!—Useful Techniques for Interpreting Chest Roentgenograms

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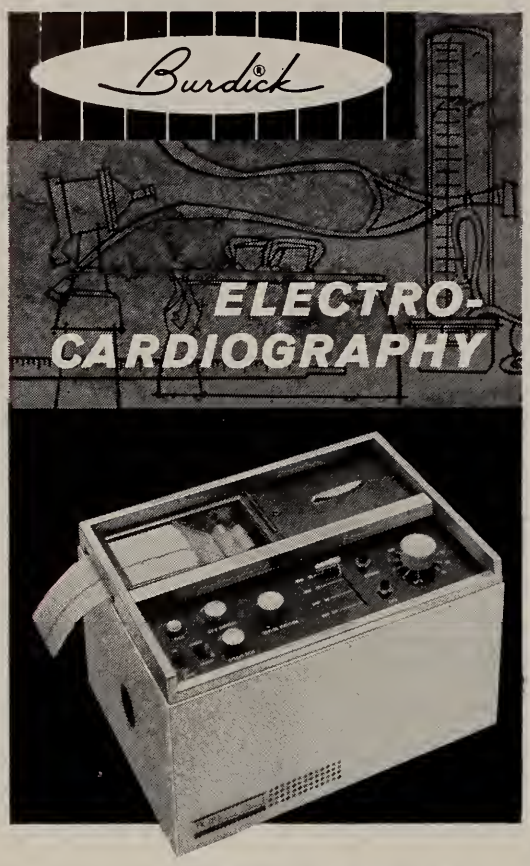

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MSMS Distributes Message In State Fair Exhibit

MSMS presented an educational exhibit in Detroit in September at the Michigan State Fair, where thousands of fair visitors were given a printed message from the Michigan State Medical Society.

The message, which follows, warned against "any intrusion of unnecessary governmental controls to hamper your doctor:"

"You and your doctor are partners in good medical care just as the Michigan State Medical Society and the general public are partners in maintaining high standards of health in Michigan. Both your doctor and his organization welcome your suggestions and constructive criticisms.

"This is voluntary, friendly cooperation that has given Michigan people the best medical care in the world. This same kind of mutual understanding will assure the necessary progress to maintain this life-giving, life-saving, superiority in medical service.

"Any intrusion of unnecessary governmental controls is a hampering thing to your doctor. It can cause embarrassment and loss of privacy to you when you are a doctor's patient. Less service, slower progress, is the inevitable result.

"Yet some politicians are trying to get elected by promising to give you government medical service! They want to increase your social security taxes and then, instead of repaying this money to you when you become eligible to receive social security benefits, they want to pay you off with certain services, at certain times, at certain places from government doctors.

"Let's keep medical care a partnership between you and your own private doctor.

"Express your feeling in this regard at the General Election this November when those candidates for national offices espousing the idea of increasing your social security taxes and giving you second-rate government medical services in return, ask for your vote."

Seek Solutions to Complex Matter

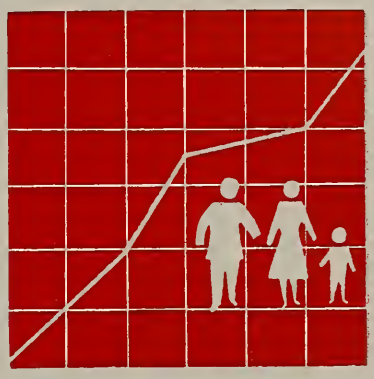
No group is more intimately concerned with problems of the aging than the members of the medical profession. Nor, in all likelihood, has any group devoted more study to the aging process or worked harder to find solutions to the many problems that accompany it.

The one thing that stands out in any study of the aged is that their problems are far broader than those of health alone. The aged have special needs in the field of housing, in recreation, in finding acceptance and understanding within the community, in the effort to be useful, in the preparation for retirement.

Appeal to Students

Dean William N. Hubbard, M.D., and other U-M faculty members presented a "Health Careers Night" program for the students at Ann Arbor High School this spring. Dr. Hubbard and his group met with students interested in careers in the field of medicine.

Say you saw it in the Journal of the Michigan State Medical Society



State M.D.'s Contribute To Medical Colleges

The American Medical Education Foundation has issued the following information about physician support to medical schools during 1959.

The report shows that the University of Michigan received a total of $49,621 from 1,279 contributors; and Wayne State University received $17,616 from 360 contributors. AMEF points out that the total of "contributions" could also be labeled "number of contributions" because many doctors gave both to their schools and to AMEF or to several schools.

The annual report also shows that in Michigan, 623 contributions were made to AMEF and 1,692 by alumni, with these contributions totaling $18,736 to AMEF and $80,117 to alma maters for a total of $98,853.

The funds will be used by the medical schools for teaching, building funds, research, scholarships, library and other purposes.

Benefits Set Faster Pace

Benefits paid to persons covered by hospital expense insurance are increasing at a much faster pace than the number of persons with such insurance, the Health Insurance Institute reports.

From 1958 to 1959, the rate of increase in hospitalization benefits was triple that of persons with hospital insurance, said the Institute, while from 1952 through 1959 the growth rate of benefits was quadruple that of persons covered.

The number of persons covered by hospital expense insurance provided by insurance companies, Blue Cross-Blue Shield, and other health care plans rose from 123,038,000 at the end of 1958 to 127,896,000 at the end of 1959, an increase of 3.9 per cent.

At the same time, benefits to pay for the costs of hospital care climbed from $2,589,000,000 in 1958 to $2,904,000,000 in 1959, a boost of 12.2 per cent, and more than triple the rate of increase in coverage, according to the Institute.

More than Half of Federal Workers Enroll in Blue Cross-Blue Shield

Blue Cross-Blue Shield led all other organizations in the enrollment of federal workers who became eligible for coverage under the Federal Employee Health Benefits legislation enacted last year.

More than 55 per cent of the estimated 1,695,000 federal workers who selected health benefits coverage from among the 38 programs available chose to enroll in Blue Cross-Blue Shield.

Nearly complete tabulations of the distribution of enrollment between the various programs which were released by the Civil Service Commission in late July indicated that enrollment in Blue Cross-Blue Shield was more than twice as large as enrollment in the government-wide indemnity benefits program provided through the Aetna Life Insurance Company. All other programs, including those offered by government employee and group health organizations, accounted for but 19 per cent of the total enrollment, or approximately 325,000 enrollees.

The breakdown of enrollment totals showed that government employees chose the high level-higher cost benefits program in preference to the low benefit-lower cost option offered by Blue Cross-Blue Shield in a ratio of about four to one.

The choice exercised by federal employees in selecting health benefits programs is described by Blue Cross and Blue Shield association officials as especially significant because it was the first time the element of free choice involving such a variety of programs has been exercised by so many individuals at one time.

Number of Persons Covered by Health Insurance in USA Continues to Increase

Seventy-two per cent of the civilian population—or more than 127 million Americans—had health insurance at the end of 1959. This figure is based on reports from insurance companies, Blue Cross-Blue Shield and other health care plans.

Both the number of persons covered by health insurance and the amount of benefits paid reached new highs last year. Coverage increased by 4.8 million during 1959 to reach a total of 127,896,000 persons with health insurance protection. Benefit payments by all health insuring organizations amounted in 1959 to more than $4.3 billion, up $400 million over 1958.

In addition, persons with loss-of-income policies received $838 million in benefits from insurance companies to replace income lost through disability. Thus, a grand total of $5,175,000,000 in health insurance benefits were distributed during 1959, up 10.9 per cent over 1958.

Hospital expense insurance was provided by insurance companies to 75,457,000 persons; by Blue Cross-Blue Shield and similar groups to 56,825,000 and by other health care plans to 4,861,000.

Surgical expense insurance by insurance companies covered 72,263,000 persons; by Blue Cross-Blue Shield and similar groups 48,843,000, and by others 5,813,000.

Regular medical expense insurance accounted for 42,999,000 persons through Blue Cross-Blue Shield and similar groups; 38,227,000 through insurance company programs, and 6,347,000 through other plans.

Says Public Needs to Understand Why Hospital Costs Will Jump in Decade

Public understanding of the need for raising health insurance costs in view of conservative estimates that hospital costs will increase by 50 per cent during the next decade was urged in a study by the Columbia University School of Public Health and Administrative Medicine on Blue Cross Plans in New York State.

The study, begun in 1958 under the direction of Ray E. Trussell, Professor of Administrative Medicine, was commissioned by the New York State Health and Insurance Departments in an effort to resolve some of the problems relating to nonprofit health insurance here. Among the recommendations of the study are:

Coverage by Blue Cross of outpatient services.

Greater participation by labor, industry, and the general public in Blue Cross management.

A uniform state-wide basic contract.

Abandonment of the principle of experience rating in determining coverage costs.

Blue Cross payments only to accredited hospitals.

Compare Salient Points in CHA Plan, and Blue Shield-Blue Cross

A comparison of the Community Health Association prepaid medical and hospital plan and Blue Shield-Blue Cross was sent recently to the presidents, secretaries and editors of the component societies of Michigan and also to the members of The MSMS Council.

The covering letter, in part, stated:

"Labor's social planners, under CHA's Executive Director F. D. Mott, M.D., have designed a program to offer essentially the same hospital benefits now available through Blue Cross but are projecting a "pilot program" which on the surface appears to have some broader medical care benefits than those of Blue Shield. CHA's rates are slightly higher than the Blues.

"CHA, which hopes to begin operations January 1, 1961, has announced that it expects to be able to take care of about 70,000 persons within a year. It will make its services available to any Metropolitan area group with a "common employer." The present

(Continued on Page 1494)

after milk and rest, why Donnalate?

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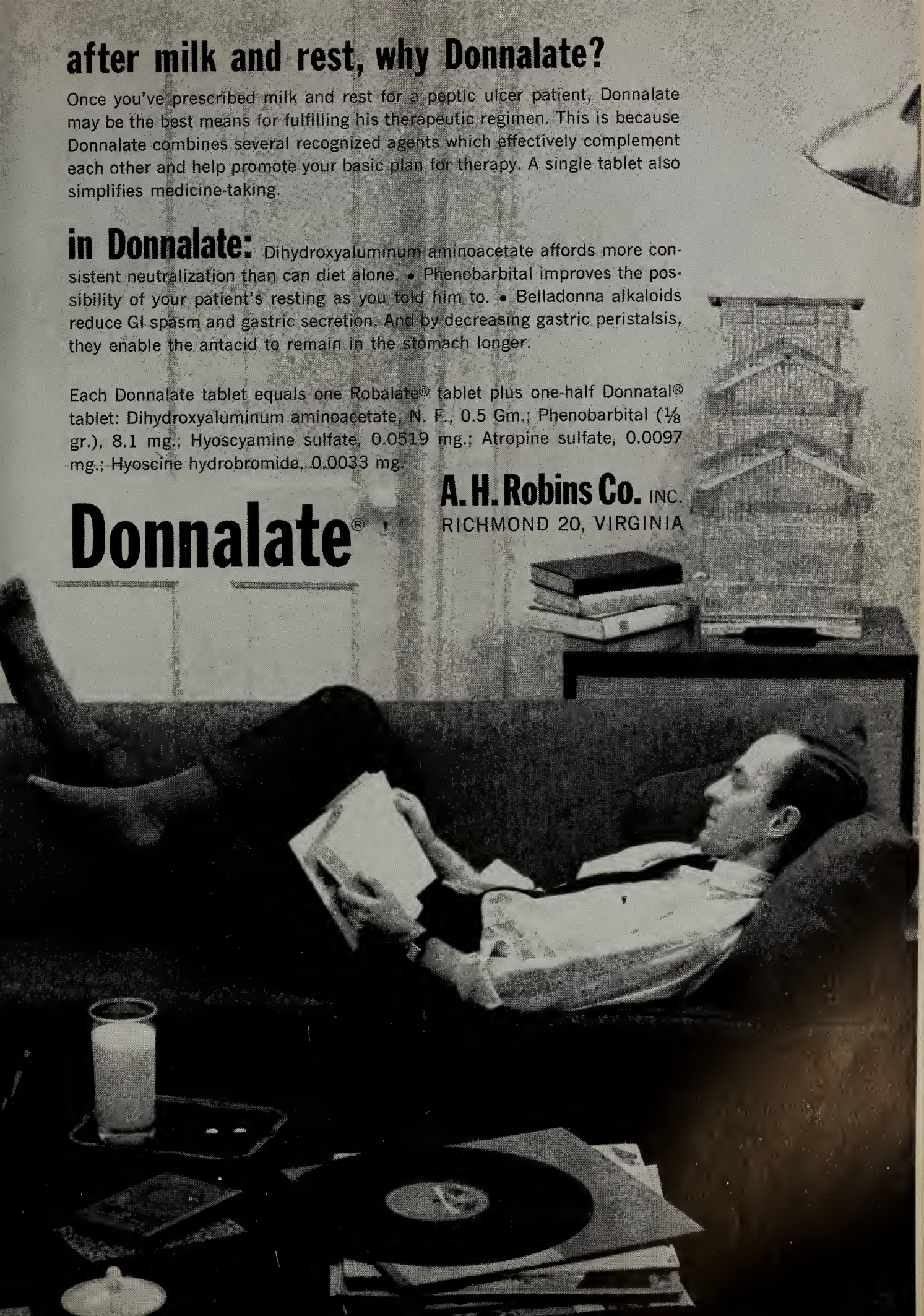

(Continued from Page 1492)

area of endeavor will be Wayne, Oakland, Macomb, Washtenaw, and Monroe Counties.

"CHA literature states: Each CHA member selects his own doctor from a medical group. Presently, CHA has under contract only Metropolitan Hospital, 1800 Tuxedo Avenue, Detroit, with 110 beds and 18 full-time MDs on its staff. Except in an emergency, all CHA members must go to this institution for care and be treated by a panel of only 18 doctors. CHA plans to build up the program as quickly as facilities (hospitals and doctors in group medical practice) can be signed up.

"CHA is a non-profit *cooperative* headed by UAW President Walter P. Reuther. It is not incorporated under the acts which cover Blue Cross and Blue Shield and, therefore, does not come under the State Insurance Commissioner.

"The Big Three employer-union agreements of 1958 provide that the CHA-type program may be offered to employees who could choose it or Blue Cross-Blue Shield or a commercial insurance company plan. Accordingly, UAW will seek conferences with the Big Three auto companies to offer its plan. Over 500,000 auto plant and allied workers are now covered by Blue Cross-Blue Shield with employees paying half the cost of coverage for themselves and their dependents while the company pays the other half."

SALIENT POINTS OF BLUE CROSS-SHIELD BENEFITS VS COMMUNITY HEALTH ASSOCIATION PROPOSALS

Blue Cross-Blue Shield	*Community Health Association*
1. Subscribers may choose their own doctor and almost any hospital in Michigan.	1. CHA members must go to Metropolitan Hospital in Detroit and be treated by a panel of available CHA doctors, except in emergencies.
2. Up to 120 days (semi-private basis) in the hospital, with non-eligible period of 90 days between hospital stays.	2. Same.
3. Complete surgical and medical care in the hospital, plus drugs, medicines, and laboratory services for hospital patients.	3. Same
4. Office calls are not as yet included in the Blue Shield program.	4. CHA will pay for office calls, the member paying $1. per visit except for immunization, lab. service, or physiotherapy.
5. Home calls are not as yet included in the Blue Shield program.	5. CHA will pay for home calls by doctors but only in a prescribed area (Detroit, part of Dearborn, Hamtramck, and Highland Park). A fee is charged for the first visit ($4.00 by day and $6.00 by night) but subsequent visits for same medical condition are free.
6. Blue Cross is experimenting with a home nursing service plan but it is not yet offered generally.	6. CHA will pay for up to 60 days of home nursing services in a prescribed area (Detroit, part of Dearborn, Hamtramck, and Highland Park).
7. Blue Shield covers surgery and emergency first aid in the doctor's office.	7. CHA will pay for all services in the doctor's office, including routine care.
8. As yet, Blue Shield does not include preventive medicine in its program.	8. CHA will pay for periodic physical examinations, pediatric care, injections, and vaccinations.
9. Blue Cross-Blue Shield pay for diagnostic x-rays, electrocardiograms, laboratory tests, and x-ray treatments, with a minor part of the costs being paid by subscribers.	9. CHA will pay for these diagnostic services.
10. Blue Cross-Blue Shield pay for maternity care after a nine-month waiting period.	10. CHA pays for maternity care before, during, and after birth with no waiting period.
11. Blue Shield as yet does not include eye examinations.	11. CHA will pay for eye examinations.
12. Blue Cross-Blue Shield do not pay for eye glasses, dental care, ambulance service, blood, or drugs and medicine for non-hospitalized patients.	12. Same.

RATES

Blue Cross-Blue Shield—Plan B

Individual Income	*Family Income*
$ 6.78	$ 7.49
16.52	18.27
17.74	20.08

Community Health Association

Flat rate, regardless of family income

Single subscriber	$ 8.00
Couple	18.80
Family	20.60

CHA subscribers pay $1.00 fee for each visit to OPD; also $4.00 for first house call and $6.00 for first night call per illness (available in a limited geographic area).

Insulin, Diabetes and Adipose Tissue

A Brief Review

George F. Cahill, Jr., M.D.
Boston, Massachusetts

KNOWLEDGE of the physiology of diabetes and insulin has increased irregularly since the isolation of the active pancreatic principle by Banting and Best in 1921.[1] Their report was soon followed by a series of experiments demonstrating that insulin directly increases glucose removal by peripheral tissues.[2,3] The succeeding two decades witnessed major developments in the treatment of clinical diabetes such as the use of long-acting insulin preparations; however, with the exception of the demonstration of the turnover of body constituents by Schoenheimer[4] followed by application of these techniques to the diabetic by Stetten,[5] there were few major advances in the basic understanding of the disease.

In the mid 1940's, Cori and his collaborators suggested that insulin primarily altered the activity of hexokinase, the enzyme catalyzing the entry of glucose into the metabolic pool of hexose phosphates.[6,7] Opposition to this concept of insulin action soon developed, particularly when several laboratories[8-10] were unable to find the expected decreased levels of this enzyme in diabetic tissues to account for the observed decrease in glucose metabolism. Several years later, Levine and his coworkers,[11,12] suggested that insulin primarily effected an increased permeability of the cell membrane to glucose, using the galactose space in hepatectomized dogs as a model system. Ross,[13] working independently in the Institute of Ophthalmology, London, likewise came to the same conclusion studying the penetration of various substances into the lens.

During this period, attention was primarily directed to muscle and liver metabolism, probably due to the convenience of the rat diaphragm and the liver slice as laboratory preparations. Nevertheless, certain investigators, notably Wertheimer and Shapiro[14] in Jerusalem, and Hausberger[15] and Renold[16] in this country, were drawing attention to the metabolic lability of adipose tissue, particularly in respect to its apparent response to insulin and diet.

From the Departments of Medicine, Harvard Medical School and the Peter Bent Brigham Hospital, Boston, Massachusetts.

Dr. Cahill is a Fellow of the Medical Foundation, Inc., Boston, Massachusetts.

Supported in part by a grant from the U. S. Public Health Service (H-4569), Bethesda, Maryland.

Mechanism of Insulin Action

In the past five years, the basic concepts which had been previously considered firm have undergone considerable revision. One exception is the Levine hypothesis, which has since been confirmed and expanded. Using the perfused heart as a model, Park, Morgan and their collaborators[17-19] have shown that insulin primarily facilitates the ease whereby carbohydrates of certain structure—obviously including glucose—are allowed to penetrate the heart muscle wall into the intracellular fluid. The enzyme hexokinase is then available to further metabolize the carbohydrate if it is a substrate for the enzyme (the enzyme has its own pattern of structural specificity). This insulin effect is not merely the opening of pores in the cell wall, (1) since it is structurally specific for certain carbohydrates as stated above, (2) since certain sugars compete with one another for entry suggesting binding to a "carrier" mechanism, and (3) since the mechanism conforms to mathematical quantitation similar to that of an enzymatic system.[17]

Muscle was generally accepted as the tissue primarily affected by insulin, as reflected by increased glucose uptake and conversion to and storage as glycogen. In addition, it was considered that in the animal with adequate insulin reserves, a certain proportion of the carbohydrate was converted to lipid in the liver (it had been well-established that fatty acid synthesis in liver from diabetic animals was markedly decreased, and that insulin-treatment of the animal returned this capacity to normal). The lipid was then thought to be transported to peripheral fat depots and stored as such until times of need.

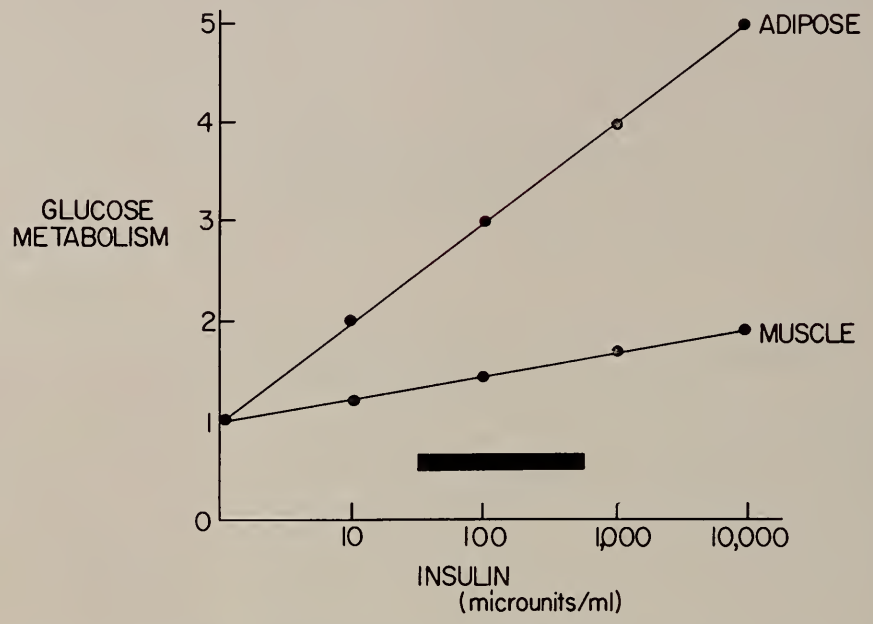

Fig. 1. Comparison of effect of insulin concentration on glucose metabolism in adipose tissue and muscle. The approximate concentrations of insulin in serum are covered by the range of the dark bar. Values for glucose uptake are in arbitrary units.

Adipose Tissue, the Primary Site of Insulin Action

The work of several investigators, particularly that of Favarger[20] and his group in France, has shown that lipogenesis (synthesis of fatty acids from carbohydrate) occurs directly in adipose tissue itself, and that perhaps nine-tenths or more of fatty acids synthesized from carbohydrate are synthesized in the adipose cell and not in liver or other tissues. In a parallel vein, Renold and his group[21-26] in Boston, have demonstrated an exquisite role played by insulin in the regulation of glucose metabolism and lipogenesis in adipose tissue. Their *in vitro* experiments have shown that this tissue responds to insulin by a dramatic acceleration of glucose metabolism, primarily resulting in conversion of glucose to fatty acids and storage of these as triglycerides. Not only is the degree of the response startling, but in addition, the concentration of insulin able to effect this alteration in metabolism is extremely small, in the order of 5 microunits/milliliter or less (Fig. 1). Thus, adipose tissue appears not only to be the most dramatically altered tissue in the presence of insulin, but may respond to lesser quantities of insulin when compared to other tissues. Extrapolating from these facts, it might be inferred that adipose tissue is the principal

site of insulin action. In addition, its response to concentrations of insulin as small as 5 microunits/milliliter, far less than the smallest estimates of the concentration of insulin in human sera, suggest that insulin continuously exerts an effect on adipose tissue and its metabolism of glucose.

Mechanism of Free Fatty Acid Release

Recent experiments have shown that triglycerides in adipose tissue are continuously split to form intracellular free fatty acids and glycerol.[32,33] The glycerol is apparently released into the circulation and metabolized to glucose by liver, which has the necessary

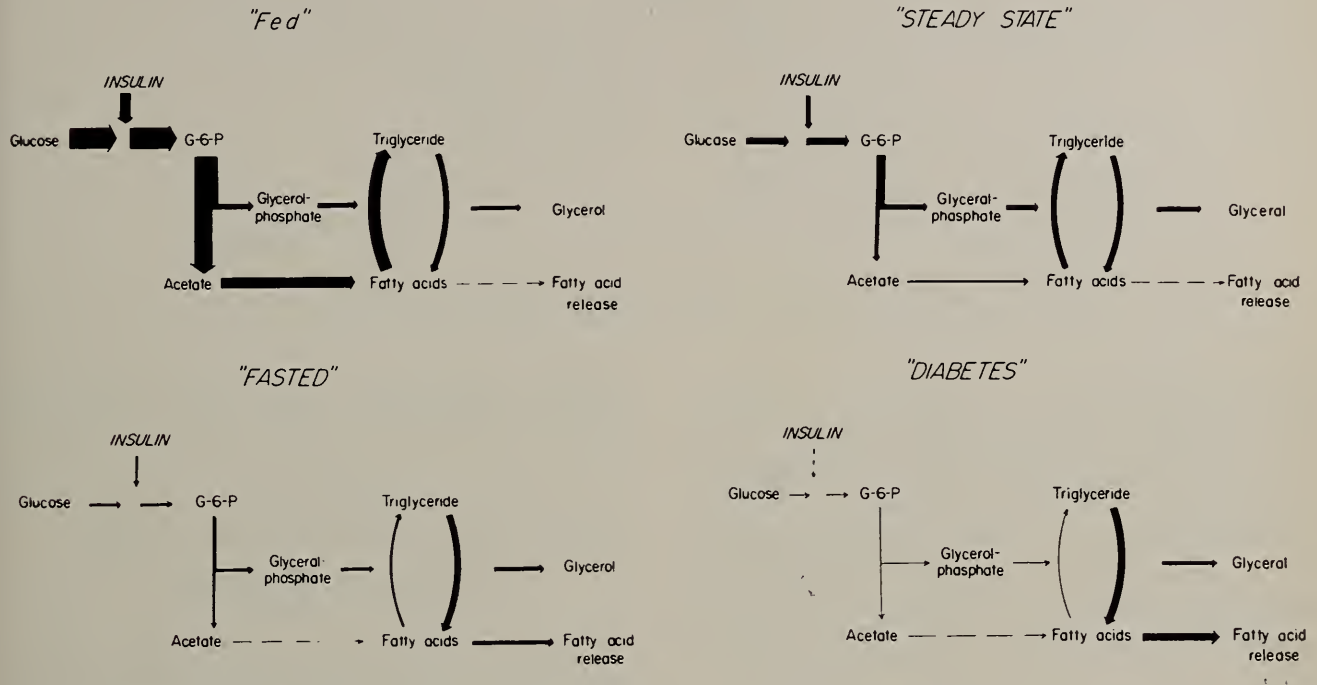

Fig. 2. Metabolism of glucose in adipose tissue. The thickness of the lines is representative of the number of carbons metabolized per unit time. It is obvious from the scheme that diabetes is merely an accentuation of the metabolic process of fasting, namely, enhanced free fatty acid release due to inability to form glycerol phosphate.

Free Fatty Acids

The next classical concept to be altered in the past few years is the previously accepted role of glucose as the body's most important source of energy. The work of Dole[27] and of Gordon,[28] recently reviewed by Fredrickson and Gordon[29] has stressed the role of circulating free fatty acids as probably the major circulating fuel. These free fatty acids, formerly called unesterified fatty acids (UFA's) or non-esterified fatty acids (NEFA's), are released by adipose tissue into the extracellular fluid and circulate tightly bound to plasma albumin. Certain tissues, for example, the heart, may utilize free fatty acids as its sole source of energy.[30-35] Indeed, it seems that only the nervous system, as represented by brain, necessarily requires glucose as an energy source. Since these free fatty acids originate from adipose tissue, the mechanism of their liberation, and particularly the factors which control this mechanism become extremely important in the understanding of homeostasis and the alterations in homeostasis as seen in the diabetic state.

enzymatic machinery for the activation of glycerol. In adipose tissue, however, free glycerol, once produced by lipolysis, may be metabolized to only a limited degree.[34,35] The glycerol used in the synthesis of triglyceride has been shown to be an activated form of glycerol, glycerol phosphate.[36] Since adipose tissue lacks this capacity to effectively convert free glycerol to glycerol phosphate, a source of glycerol phosphate is necessary to re-esterify the free fatty acids to triglycerides in order to prevent their accumulation and release.[25] This source is glucose. However, as mentioned earlier, due to the exquisite role played by insulin in permitting glucose metabolism in this tissue, the glucose supply is regulated by the concentration of effective insulin. Thus, lack of insulin, by limiting the ability of glucose to be metabolized to glycerol phosphate, limits the rate of fatty acid esterification to triglyceride and thereby permits free fatty acids to accumulate in the adipose cell with their eventual release into the circulation (Fig. 2).

On the other hand, as shown by Hausberger[15] and

by Renold[21,26] and his group, higher concentrations of insulin increase the metabolism of glucose beyond that amount needed to synthesize glycerol phosphate and the excess is in turn utilized for fatty acid synthesis. insulin signals the fat cell to release its fat as free fatty acids. This latter reaction also probably necessitates some sympathetic nervous activity in the adipose tissue in addition to the "permissive" effects of

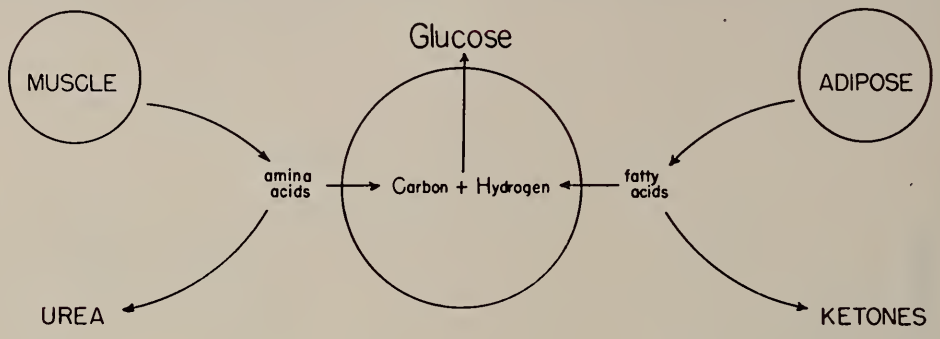

Fig. 3. Concomitant requirement of amino acid and fatty acid release from muscle and adipose tissue respectively in the process of gluconeogenesis by the liver.

Thus, modulations in the concentration of effective insulin signal the fat cell whether it should extract excess quantities of glucose from circulating fluids in the process of lipogenesis in order to expand its stored triglyceride pool. This relationship of adipose tissue and insulin places heretofore unestimated importance on the sensitivity of the β-cell to closely regulate the concentration of circulating effective insulin.

Numerous recent experiments from many laboratories have shown that factors other than lack of effective insulin may accelerate the release of free fatty acids from adipose tissue. For example, it has been shown for years that sympathetic denervation of fat followed by fasting results in a slower mobilization of fat in the denervated area compared to the inervated area.[37] Thus, the nervous system seems to play an important "tonic" role in fatty acid release,[38] probably by regulating the rate of lipolysis of triglyceride to free fatty acid and glycerol.[39] Likewise, epinephrine and nor-epinephrine[39-41] accelerate lipolysis, a logical alarm response analogous to the epinephrine effect on glycogenolysis in liver and muscle. In fact, such minor stresses such as discussion of emotionally charged topics are able to elevate free fatty acid concentrations in man.[42] In addition, thyroid,[43] growth,[44] adrenocorticotrophic[45] and other hormone preparations as well have been implicated in the release of free fatty acids from adipose tissue, but their physiological role in fat mobilization is as yet not clearly delineated.

Piecing the parts together, insulin signals the fat cell, as mentioned above, to expand its fat stores at the expense of blood glucose, and conversely, lack of thyroid, adrenocortical hormones and possibly other hormones as well. In the absence of effective insulin, free fatty acids are liberated from adipose tissue unopposed by esterification, and the concentration of free fatty acids in the plasma rises accordingly.

Muscle and Amino Acids

The preceding discussion would appear to favor adipose tissue as the primary target of insulin action. It is the opinion of the author that this is probably the case in respect to glucose and fat metabolism. On the other hand, the incorporation of amino acids into muscle protein has been shown to be exquisitely sensitive to insulin.[46,47] In an analogous manner to glucose in adipose tissue, insulin may serve to signal muscle to extract amino acids and to incorporate these amino acids into protein. Lack of insulin, therefore, would permit muscle to release its amino acid reserve, again analogous to the release of free fatty acids by adipose tissue when insulin is lacking.

A biochemist might have postulated the role of insulin in amino acid metabolism in muscle, since, if insulin is the "fed" hormone, lack of insulin or "fasting" places a gluconeogenic requirement on the liver to produce glucose for certain tissues, most notably the brain. The biochemist realizes that gluconeogenesis involves the reduction of two three-carbon acids (pyruvate) by hydrogen to form glucose. The hydrogens are readily derived from fatty acids with acetate as the "by-product." The three-carbon acid, however, cannot to any appreciable degree be derived from fat and must therefore arise from deamination of amino acid with urea as its "by-product." Gluconeogenesis, therefore, necessitates concomitant

utilization of fatty acids and amino acids with acetate (or ketone bodies, condensation products of acetate) and urea as respective waste "by-products." The biochemist would deduce that a signal (insulin, or more correctly, lack of insulin) must be transmitted to both adipose tissue and muscle as respective sources of fatty acids and amino acids—during fasting to render their stored products into the blood (Fig. 3).

The diabetic, whose insulin deficit surpasses that of the fasted normal, can be regarded as "superfasted." Amino acid release from muscle and fatty acid release from adipose tissue occur maximally when insulin is totally lacking, and these events are obviosly reflected by loss of body fat and protein stores. Urea is probably benign, however, condensation products of accumulated acetate (that is, acetoacetate and β-hydroxybutyrate) are strong acids and when their concentrations rise beyond the renal threshold, they are excreted in the urine with sodium and potassium resulting in acidosis and eventually coma and death.

Conclusion

In summary, the concept of insulin action has evolved into a mechanism whereby the body alters its metabolism in favor of anabolic reactions, particularly fat synthesis. Decreased insulin action is a signal to the tissues to supply gluconeogenic precursors to the liver, thereby favoring overall catabolism. The concentration of effective insulin must thereby be exquisitely regulated, serving to effect the balance between the fed and fasting state, perhaps fluctuating several times daily in the normal meal-eating animal such as man. In the juvenile or ketotic diabetic, this signal is lacking and catabolism takes place, even in the presence of severe hyperglycemia.

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Follow-up on Aldosteronism

The man who described the first case of primary aldosteronism declared that after six years' observation he now believes the disease "will prove to be much more common than we think it is today."

Fifty-six cases of this "intriguing syndrome," which is completely curable by surgery, have been reported in the literature and 100 more are well documented, reported Dr. Jerome W. Conn of the University of Michigan Medical School, Ann Arbor.

In retrospect, he notes, it "was our good fortune to have encountered a most classical case of primary aldosteronism as the initial one." Very little has been added to the biochemical or symptomatological picture, although some "astute clinicians" have recognized cases in which classical manifestations have been missing.

In a situation, the diagnosis of which must lead to surgery, one desires "infallible diagnostic criteria," Dr. Conn added. Criteria have been worked out, but "experience in the past five years has taught us that if we insist on having all the classical findings we will diagnose only about 30 per cent of the cases." And early diagnosis is crucial.

Removal of the source of excess aldosterone production results in "dramatic disappearance of the entire syndrome in the vast majority of cases." The usual response is prompt re-arrangement of electrolyte and acid-base balances, usually completed by the third postoperative week. All the symptoms disappear abruptly.—Conference on Endocrine at Copenhagen—*World Medical News.*

An Integrated View of Glucagon

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Indianapolis, Indiana

GLUCAGON is one of the most interesting, powerful, and mysterious substances known to medicine. It has diverse physiologic functions; it is effective in minute doses, but we don't know just why it is in the human body.

In this review I would like to summarize briefly our biochemical and physiologic knowledge of this hormone and discuss its experimental and practical clinical uses. The interested reader is referred to several extensive reviews.[1-4]

Glucagon's life history is intimately connected with its neighbor, insulin. In fact, shortly after the discovery of insulin it was noted that before the blood sugar went down after insulin, it rose in the first few minutes. Kimball and Murlin[5] postulated a second substance (which they named glucagon) in the pancreatic extracts (Fig. 1). After insulin is inactivated with cysteine, the hyperglycemic effect can be shown.

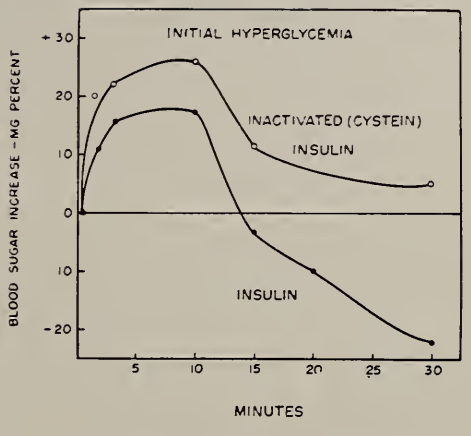

Fig. 1. Effect of active and cysteine-inactivated insulin on blood sugar. Note the initial hyperglycemia which is due to glucagon.

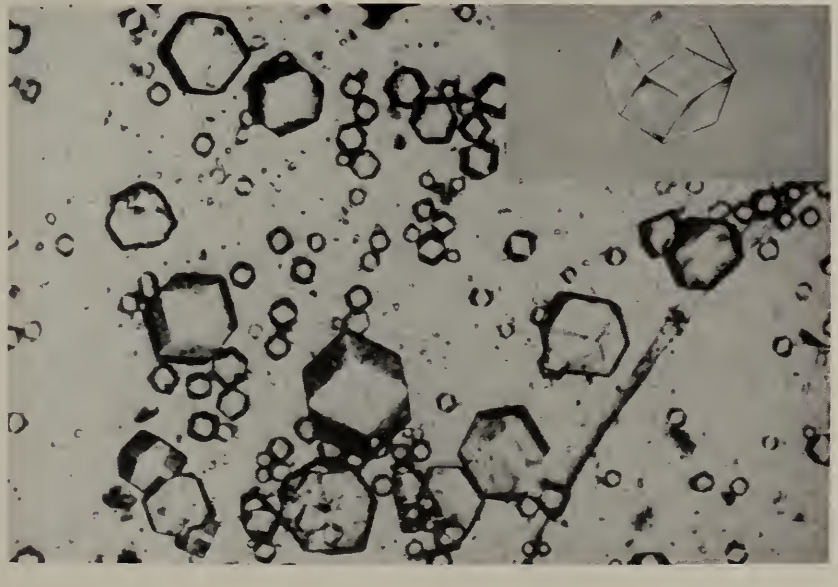

Fig. 2. Glucagon crystals (after Staub, Sinn, and Behrens[6]).

After thirty years of conflicting observations, the blurred picture finally cleared. There *is* a substance liberated by the alpha cells of the islets of Langerhans in the pancreas which goes to the liver. In 1953, Staub, Sinn, and Behrens,[6] in our laboratories, were able to prepare a crystalline material from pancreatic extracts which is hyperglycemic and glycogenolytic (Fig. 2).

Presented at a meeting of the Pan American Medical Association, Mexico City, May 5, 1960.

From the Medical Division, Lilly Research Laboratories, Indianapolis, Indiana.

Chemical Structure of Glucagon

Molecular weight - 3485

29 amino acids as a straight-chain polypeptide

Complete amino acid sequence known

--Bromer, Sinn, Staub, Behrens
J. Am. Chem. Soc. 78:3858, 1956

Fig. 3. Chemical structure of glucagon (after Bromer *et al*[2,7]).

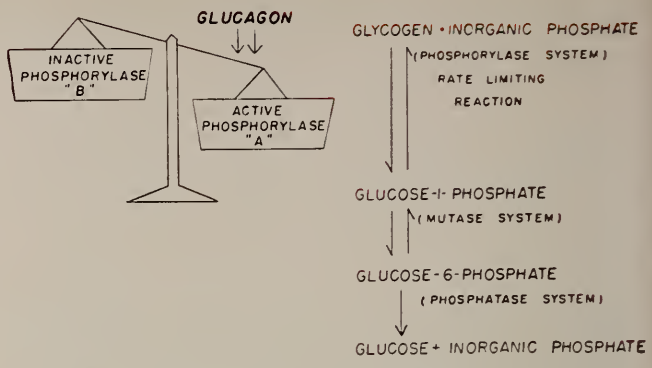

Fig. 4. Schematic representation of the function of glucagon (from Kirtley, Waife, Helmer, and Peck[10]).

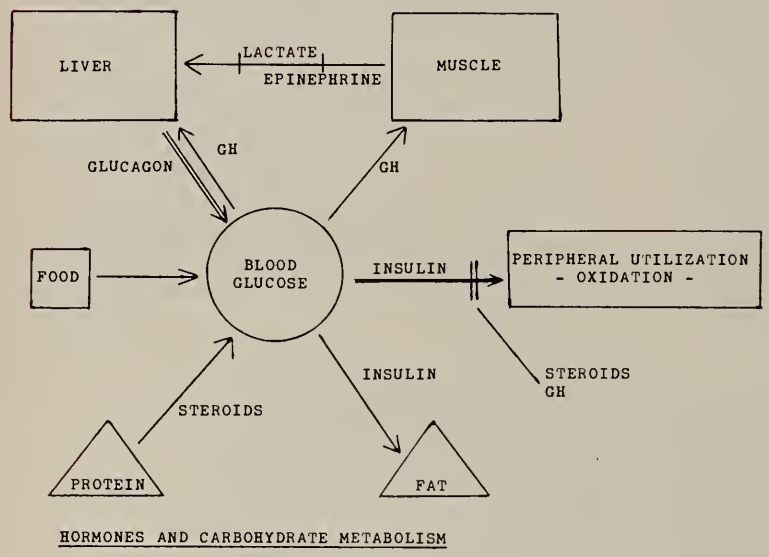

Fig. 5. Schema of hormonal actions on carbohydrate metabolism. Note the position of glucagon and insulin in this diagram.

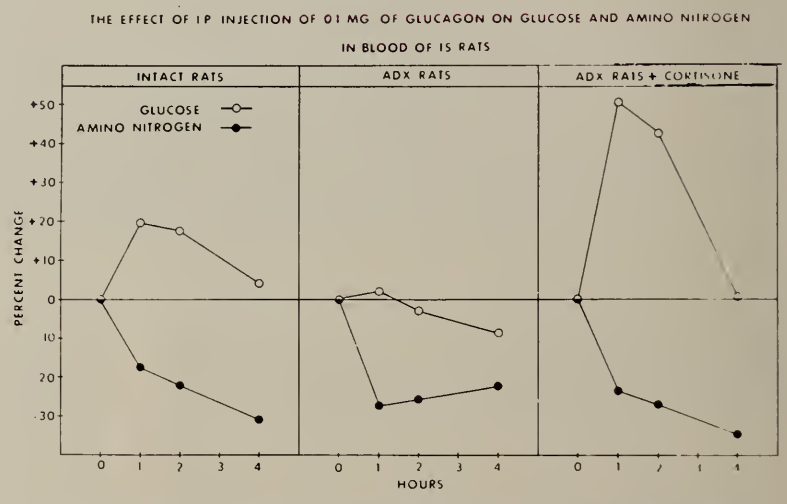

Fig. 6. Effect of glucagon on blood glucose and amino nitrogen (from Helmer *et al*[8]).

In 1956 our associates scored again by determining the chemical structure (Fig. 3).[2,7]

The functions of glucagon may be described as follows: It throws the balance in favor of active phosphorylase (in the liver only) which has the effect of breaking down liver glycogen to glucose (Fig. 4).

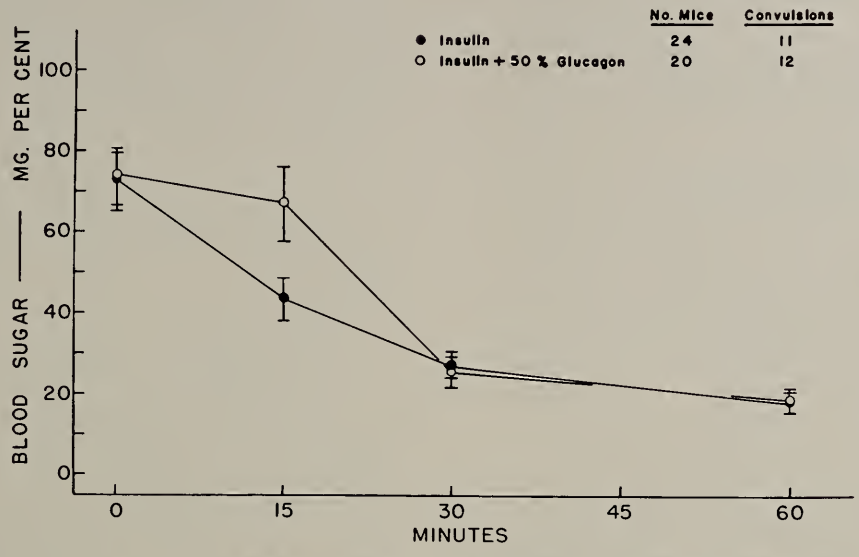

Fig. 7. Blood sugar response of mice to insulin and insulin plus glucagon. Note that the addition of 50 per cent glucagon did not affect the hypoglycemic action of Insulin (from Root, Ellis, and Staub[9]).

In a teleologic sense, glucagon may be said to have the task of making the liver's store of carbohydrate available to the body as a whole. The role of this and other hormones is shown in Figure 5.

In some respects, glucagon resembles epinephrine in action. Both are short-acting substances which raise blood sugar. However, epinephrine acts also on *muscle* glycogen and its action can be blocked by ergotamine, which is not true for glucagon. In some respects, glucagon resembles corticosteroids, especially in causing breakdown of protein (with some conversion into glucose, gluconeogenesis) and excretion of nitrogen products.

Figure 6 shows some data from Dr. Helmer, of our laboratory at the Marion County General Hospital.[8] You will note that the fall in blood amino acid after glucagon is not related to the rise in blood sugar. After glucagon there is an increase in urea (N) excretion as well as a fall in blood amino acid nitrogen.

Glucagon is, therefore, a catabolic agent, and one may *speculate* that the body begins to break down its protein—and fat—stores when liver glycogen is depleted via the metabolic signal offered by glucagon, which is probably secreted when the blood sugar falls to hypoglycemic levels. In other words, the liver becomes depleted of glycogen: blood sugar falls. This stimulates glucagon secretion: glucagon causes protein catabolism with new formation of carbohydrate from protein; the new carbohydrate keeps the "motor running"—for a time at least.

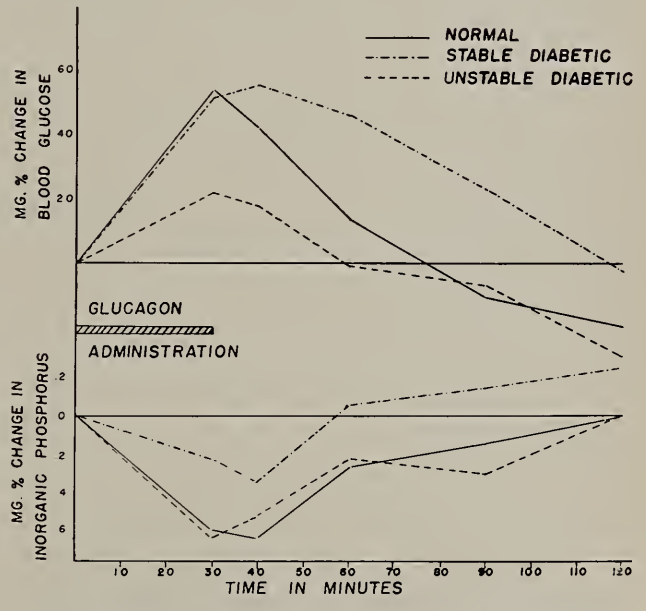

Fig. 8. Effect of glucagon on blood sugar and serum inorganic phosphate in "stable" and "unstable" diabetic subjects (from Kirtley, Waife, and Peck: Proc. Soc. Exper. Biol. & Med., 83:387, 1953.)

One of the many questions that arose several years ago when glucagon was actively studied was, does glucagon interfere with the action of insulin? If there is glucagon in an insulin preparation, would it interfere with the insulin assay? Dr. Mary Root and associates, of our group, studied this problem (Fig. 7).[9] Note that even with large amounts of glucagon pres-

ent, the insulin effect is not altered. Assay of our commercial insulin reveals a glucagon content of one-half of 1 per cent or less.

Our group[10] was interested in seeing whether stable

Metabolic Effects of Glucagon

1. Activation of liver phosphorylase
   → glycogenolysis → hyperglycemia
2. Catabolism of protein →
   → gluconeogenesis
   → increased nitrogen excretion
   → decreased blood amino acid
3. Inhibition of gastric motility and secretion
   → satiety (?)
4. Increased electrolyte excretion
5. Effect on fat metabolism → decreased formation of fatty acids
6. Increase in oxygen consumption

Fig. 9. Metabolic effects of glucagon.

and brittle (or juvenile) diabetics differ in their response to glucagon (Fig. 8). These early data show that there are indeed some differences in response to single doses of glucagon. Just how this fits into the pathogenesis of the two types of clinical diabetes is still speculative.

Glucagon for Termination of Insulin Coma

Advantages

1. vs. glucose
   --decreased volume and viscosity
   --no local reactions (thrombosis)
2. vs. tube feeding
   --faster
   --easier
   --decreased danger of aspiration
3. Safety
4. Decreased weight gain during IST

Disadvantages

Patient must eat shortly after awakening.

Fig. 10. Some current clinical uses of glucagon.

Glucagon also has an interesting effect on the gastrointestinal tract.[1] It produces a prompt decrease in motility and secretion. In very large doses, it can produce nausea. With the diminished gastric activity there is a suppression of the sensation of hunger. This has led to speculation that glucagon may be somehow involved in the satiety mechanism. Certainly, because of the interrelation of obesity and diabetes, this subject deserves further research.

Some of the metabolic functions are illustrated in Figure 9.

At present, there are two primary *clinical* uses of glucagon: treatment of insulin reactions among diabetics and termination of therapeutic insulin coma (Fig. 10).[11-17]

Small doses, only about 1 mg., of glucagon administered parenterally lead to arousal from hypoglycemic coma in about ten to fifteen minutes, the blood sugar rising about 50 mg. per 100 ml. The patient should then take carbohydrate by mouth to prevent relapse.

Clinical Uses of Glucagon

Diabetes

Insulin reactions due to
- overdosage
- inadequate food intake
- inability to utilize food
- strenuous exercise

Insulin Shock Therapy

Replaces glucose (intravenous or by gavage) in most cases

Fig. 11. Use of glucagon for termination of insulin coma.

Usually one dose is adequate. Of course, the physician has to use his own judgment in every case; if coma is very deep or prolonged, hypertonic glucose should be given. But for the diabetic patient at home, glucagon would seem to be very useful in emergencies, for it can be given by members of the family in a fashion similar to insulin. It also saves precious time and spares personnel when used to bring people out of insulin shock in the treatment of mental disease.

Other Uses under Study

1. Glycogen storage disease (von Gierke)
2. Islet-cell carcinoma of pancreas
3. Idiopathic hypoglycemia
4. Leucine-induced hypoglycemia
5. Anti-tumor effect (experimental)

Fig. 12. Other clinical states in which glucagon is being studied.

The advantages of a simple injection of glucagon are shown in Figure 11. The material may be given subcutaneously, intramuscularly, or intravenously. The only differences are in the speed of the effect.

Several other conditions associated with hypoglycemia are currently under study (Fig. 12).

Johnson and Wright,[18] in our laboratories, reported

last year that glucagon in large doses had a carcinostatic effect on a variety of experimental rat tumors. There is *no* clinical application to this finding, and I mention it only to prove my point that glucagon is a most interesting and mysterious substance.

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New Uses For Aspirin

Small daily doses of aspirin can lower blood cholesterol, relieve the symptoms of diabetes, and can act like thyroid where there is insufficient metabolic activity. Salicylic acid preparations have been used since antiquity as a remedy for rheumatic pains. Now, according to Chauncey D. Leake, M.D., in *The New Physician*, July, 1960, aspirin has been found to stimulate the hormone system of the body creating an increased flow of the hormones so necessary for healthy activity. He wrote:

"The safety of aspirin is such as to make it readily available without prescription everywhere—and it is not expensive anywhere. Since the drug leaves the body in four to six hours, its dosage must be repeated that often in order to maintain effectiveness.

"The therapeutic application of the actions of aspirin to diabetes mellitus is startling. It reduces blood sugar and glycosuria, controls ketosis, improves glucose tolerance, and well supplements the action of insulin. It has already been useful in controlling diabetics who do not wish insulin injections. Its simultaneous reduction of hypercholesteremia may prove to be especially beneficial in a disease in which premature vascular degeneration is so common.

"During the past six decades, under the common name, aspirin, it has become the most used drug, world over, for relief of congestive pain and for removing the symptoms of fever. Its remarkable safety has contributed to this success, in spite of its tendency (about 5 per cent) to cause allergic reactions."

Insulin Resistance

James B. Field, M.D.
Bethesda, Maryland

THE INSULIN requirement in the human following total pancreatectomy is said to be approximately 40 units of insulin per day. Since many patients with spontaneous diabetes appear to have insulin requirements in excess of this amount, absolute insulin deficiency does not appear to be an adequate explanation for their large insulin requirements. In this respect, diabetes is quite different from Addison's disease and hypothyroidism where hydrocortisone and thyroid requirements respectively do not show such great variability from patient to patient. In addition to the marked variation of insulin requirements among diabetic patients, there are a small group of patients who, in the absence of acidosis, infection or endocrine disturbance, require over 200 units of insulin per day and have been arbitrarily defined as having chronic insulin resistance. Temporary resistance to insulin is frequently seen associated with diabetic acidosis, infections and endocrine disturbances such as Cushing's syndrome and acromegaly. This paper presents the results of some of our studies demonstrating substances in the plasma which might provide an explanation for the resistance to insulin in the clinical situations just mentioned.

The technique used in these studies is based on the ability of insulin to stimulate glucose uptake and glycogen deposition by rat hemidiaphragm. In these experiments one hemidiaphragm is exposed to test plasma, buffer and insulin while the control hemidiaphragm from the same animal is dipped in plasma and buffer without insulin. Subsequently, the diaphragms are washed in buffer and then incubated in buffer and glucose for ninety minutes. At the end of the incubation period, the glucose disappearing from the medium or the glycogen content of the diaphragms is determined. In the presence of normal plasma, the hemidiaphragm exposed to insulin will deposit more glycogen and take up more glucose than its control. This increment due to insulin is referred to as the insulin effect. The abolition of this effect by the test plasma is interpreted as evidence for the presence of an insulin antagonist in the test plasma.

Insulin antagonists have been implicated in the etiology of chronic insulin resistance. Over twenty years ago, Banting demonstrated that the plasma of such a patient contained something which protected the fasted rabbit from hypoglycemia. Since that time, there have been numerous case reports concerning diabetic patients with chronic insulin resistance whose plasma contained an insulin antagonist, most likely an antibody to insulin. Berson has very thoroughly discussed the studies which he and his colleagues have done on this antibody to insulin. He has shown that the insulin-binding capacity of plasma from patients with chronic insulin resistance is much greater than that found in the non-insulin resistant patient. His detailed studies concerning the kinetics of the reaction between insulin and the insulin antibody promise to provide a better understanding of the role of this substance in clinical diabetes. In patients with chronic insulin resistance it has been possible to demonstrate an antagonist in the plasma which might account for the resistance. Table I shows that in the presence of normal plasma, the rat hemidiaphragm exposed to insulin will take up 2.74 mg. of glucose per gram of muscle more than the control hemidiaphragm not exposed to insulin. This difference, referred to as the insulin effect, is not significantly altered by using dilutions of plasma up to 1:1000. Table II records the results obtained using plasma from some patients with chronic insulin resistance, indicating the presence of an insulin antagonist. Note the marked decrease in the insulin effect as com-

TABLE I. INSULIN EFFECT IN THE PRESENCE OF NORMAL PLASMA

Dilution of Plasma	Mg. Glucose/Gm. Muscle	Number of Experiments
Undiluted	2.74±0.17	51
1:10	2.41±0.10	89
1:100	2.07±0.23	15
1:1000	2.16±0.27	3

Presented before the Clinical Society of the Michigan Diabetes Association, March 9, 1960.

From the Clinical Endocrinology Branch, National Institute of Arthritis and Metabolic Diseases, Bethesda, Maryland.

pared with the normal (Table I). Immunologic studies indicated the antibody nature of this antagonist. There was a poor correlation between the titer of the antagonist and the daily insulin requirement.

TABLE II. OTHER PATIENTS WITH CHRONIC INSULIN RESISTANCE

Patient	Insulin Dosage	Dilution of Plasma	Insulin Effect
Ov	400	Undiluted	0.20±0.46 (6)
Bu	256	Undiluted	0.50±0.77 (3)
Fr	220	Undiluted	0.08±0.21 (3)
Th	250	1:10	0.50±0.28 (3)
Ch	700	1:10	1.00±0.75 (3)
St	580	1:10	0.19±0.15 (3)

Adrenal steroids have been used with some success in the treatment of chronic insulin resistance. Table III summarizes the findings in a case successfully treated with prednisone. Before prednisone the daily insulin requirement of this patient was 1800 units, and insulin antagonist was demonstrable even when his plasma was diluted 1:100. Only when the plasma was diluted 1:1000 was it possible to recover the effect of the added 0.01 units of insulin. Following successful prednisone therapy, his daily insulin requirement fell to 80 units and, although an antagonist to

TABLE III. PATIENT WITH CHRONIC INSULIN RESISTANCE TREATED WITH PREDNISONE

Dilution of Plasma	Insulin Effect	
	Pre-Prednisone	Post-Prednisone
Undiluted		0.72±0.67 (3)
1:10	0.85±0.36 (3)	3.26±0.32 (3)
1:100	0.33±0.40 (3)	
1:1000	2.78±0.62 (3)	

insulin was still present, it was decreased in amount. The mechanism of action of steroids in such cases remains to be elucidated. In another case that was successfully treated with steroids, the rate of insulin-I^{131} disappearance from the plasma before and after steroid therapy was studied. Successful steroid therapy in this case did not accelerate the rate at which insulin-I^{131} left the plasma.

It has also been suggested that the augmented amounts of antibody found in patients with chronic insulin resistance are not the cause of the insulin resistance but only a manifestation of repeated injections of large amounts of insulin, necessary for the control of the diabetes. Clinically it has occasionally been observed that diabetics with chronic insulin resistance and circulating insulin antagonist do as well on diet and no insulin as they do when given large doses of insulin. An explanation for this hypothesis proposes that the insulin antibody was antagonistic to commercial insulin only and not to the endogenous insulin of the patient. These patients presumably had sufficient endogenous insulin to avoid ketosis, provided that observance of a prescribed diet was rigid. However, the correctness of this explanation is open to question since we and others have shown that the insulin antagonist present in patients with chronic insulin resistance does indeed inhibit the effect of human insulin (Table IV). We must look to future studies to further clarify the place of insulin antibodies in the etiology of chronic insulin resistance.

TABLE IV. ABILITY OF HUMORAL INSULIN ANTAGONIST FROM PATIENT WITH CHRONIC INSULIN RESISTANCE TO INHIBIT THE EFFECT OF HUMAN INSULIN

Serum	Type of Insulin	Insulin Effect
		Micromoles Glycogen (Glucose Equivalent) Per Gram of Tissue Mean ± S.E.M.
J.C. 12-19-56	Beef-Pork 0.2 unit	0.58±0.66 (3)*
J.C. 12-19-56	Human 0.2 unit	1.75±0.95 (3)
Normal	Human 0.2 unit	6.48±0.06 (3)

( )*Number of determinations.

In addition to insulin antibodies, other plasma insulin antagonists, clearly not antibodies, have been demonstrated in certain other diabetic situations. Table V shows the results obtained using plasma from some untreated patients with newly-discovered diabetes. Although glycosuria and ketonuria were present in all patients, diabetic acidosis was absent. Plasma from the first two patients was capable of inhibiting the

TABLE V. NEW DIABETICS REQUIRING INSULIN

Patient	Dilution of Plasma	Insulin Effect	
		Before Insulin	After Insulin
Wh	Undiluted	0.32±0.30 (3)	2.49±0.61 (6)
Ke	Undiluted	1.16±0.22 (3)	2.49±0.44 (3)
Sh	Undiluted	2.36±0.12 (3)	
Or	Undiluted	2.27±0.38 (3)	

effect of insulin, while there was no evidence of insulin inhibition in the last two cases. Clinically, there were no distinguishing features between the two patients with and the two patients without an insulin antagonist. Plasma was obtained again from the first two cases several days after insulin therapy had been instituted, and at that time, the diabetes had been controlled. No insulin antagonist was demonstrable. The

evanescent nature of the antagonist in this situation is reminiscent of that found during diabetic acidosis.

Infections in the patient with diabetes are frequently associated with an increase in insulin requirement and with some degree of insulin resistance. Table VI summarizes the results obtained using plasma from

TABLE VI. DIABETICS WITH INFECTIONS

Patient	Dilution of Plasma	Insulin Effect
Wo	1:10	1.04±0.47 (3)
St	Undiluted	1.11±0.32 (6)
Os	Undiluted	1.56±0.37 (3)
Ha	Undiluted	2.08±0.39 (6)

diabetic patients with infections. Patient WO had an acute staphylococcal abscess and his plasma, diluted 1:10, inhibited the effect of 0.01 units of insulin. The diabetes of patient ST was out of control as a result of infectious mononucleosis. His plasma also exhibited an insulin antagonist. Patient OS entered the hospital with acute appendicitis. Although the insulin effect was lower than in any of the experiments with normal plasma, significant insulin antagonism was not demonstrable. The final patient (HA) with an acute pyelonephritis due to Escherichia coli did not have any insulin antagonist in her plasma. Unfortunately, it was not possible to test plasma from these patients after the infections had been resolved in order to determine if any insulin antagonist was still present. The antagonist present in patient WO during infection had some characteristics similar to the antagonist present in a patient with diabetic acidosis, but different from that found in the patient with chronic insulin resistance.

The procedure used in these experiments was modified somewhat so that the insulin-stimulated hemidiaphragm was exposed to the plasma first, then washed in buffer and dipped in insulin before being incubated in glucose. In this way the plasma, insulin and diaphragm are not in contact simultaneously. It has been demonstrated previously that the insulin antagonist present during diabetic acidosis was still active under these circumstances, while the antagonist present in the patient with chronic insulin resistance would no longer inhibit the effect of insulin. In the case of chronic insulin resistance, plasma, insulin and diaphragm must all be together in order to inhibit the effect of insulin. The inhibitory effect of plasma is lost when the diaphragm is pre-treated with plasma. In contrast, the antagonist present in patient WO during his infection was still capable of inhibiting insulin even though the plasma, insulin and diaphragm were not present simultaneously. In this respect the insulin antagonist during an infection in this diabetic resembles that present in the patient with diabetic acidosis. When normal plasma is used, this change in procedure does not modify the insulin effect. Many cases of diabetic acidosis are precipitated by infection; hence it would seem reasonable for the insulin antagonist present in some diabetics during infections to be similar to (or possibly identical with) the antagonist found in patients with diabetic acidosis.

It is possible to find evidence of an insulin antagonist in some, but not all, cases of diabetic acidosis. In these studies glycogen deposition by rat diaphragm was measured instead of glucose uptake. The insulin effect in the presence of normal plasma is 5.35 micromols of glycogen per gram of muscle. In the cases

TABLE VII. ACTIVITY OF VARIOUS PROTEIN FRACTIONS OF INSULIN ANTAGONIST SERUM

Fraction	Equivalent Amount of Whole Serum	Insulin Effect: Micromoles (Glucose Equivalent) Per Gram of Tissue Mean ± S.E.M.
Albumin	0.15	7.23±0.74 (3)*
α_1 Globulin	0.15	1.41±0.99 (3)
α_2 Globulin	0.15	4.72±2.26 (3)
β Globulin	0.15	8.52±1.77 (2)
γ Globulin	0.15	8.17±2.64 (3)

( )*Number of determinations.

where an antagonist was present during diabetic acidosis, it was not present several days later after the acidosis had been successfully treated. Although previously, both decreased plasma pH and increased adrenal corticoid activity had been suggested as the cause of this temporary insulin resistance, it was not possible to demonstrate any antagonist in sera obtained from some patients with uremia whose plasma pH and CO_2 combining power were just as depressed as those in patients with diabetic acidosis. The addition of large amounts of hydrocortisone to normal plasma did not produce insulin antagonism. Some patients had no circulating insulin antagonist, yet had very high levels of plasma hydrocortisone. Other studies have suggested that this antagonist is not glucagon and possessed no insulinase activity. It did not appear to interfere with the binding of insulin to muscle. By starch block electrophoresis of plasma proteins, the antagonist activity in diabetic acidosis is shown to reside primarily in the alpha-1 globulin fraction (Table VII). This is in contrast to the gamma-globulin or interbeta-gamma globulin location of the insulin antibody present in patients with chronic insulin

resistance. The antagonist present during diabetic acidosis is still capable of inhibiting the effect of insulin when insulin and plasma are exposed to the rat diaphragm separately.

An insulin antagonist is present in some cases of acromegaly associated with diabetes. Clinically it has been observed that the diabetes present in acromegalics is often characterized by a degree of insulin insensitivity. In experimental animals the diabetes resulting from repeated injections of growth hormone is also refractory to insulin. Table VIII records the presence of this antagonist in some patients with acromegaly. As yet, this antagonist has not been characterized.

TABLE VIII. DIABETICS WITH ACROMEGALY

Patient	Dilution of Plasma	Insulin Effect
Ma	Undiluted	0.97±0.73 (3)
St	Undiluted	1.20±0.25 (6)
Ja	Undiluted	—0.30±0.35 (3)
Wy	Undiluted	2.28±0.23 (3)

Summary

Circulating inhibitors of insulin have been demonstrated in several clinical situations in the diabetic. In chronic insulin resistance the antagonist is probably an antibody to insulin and its effective titer can often be reduced by steroid therapy. The mechanism of the steroid effect is unknown. This antibody appears to be different from the antagonist present during some cases of diabetic acidosis and infections in the diabetic. Whether the antagonist in the latter two instances is identical is not known. In some new diabetics an antagonist to insulin can also be demonstrated. Its presence is transient. The exact nature of this antagonist is unknown also. Its etiologic role in the production of diabetes is still unanswered. It is also possible that the insulin resistance observed in the acromegalic patient with diabetes is due to an insulin inhibitor.

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Pathology of Lung Diseases

An improved method for studying the pathology of lung diseases has been developed by joint studies of Hollis G. Boren, M.D., and Bernard J. Blumenthal, M.D., of the Houston, Texas, Veterans Administration hospital and Baylor University College of Medicine, and William Hentel, M.D., and A. N. Longfield, M.D., of the Albuquerque, N. Mex., VA hospital.

Allowing for study of lung tissue in three dimensions, it offers a new approach to the unknown problems of pulmonary anatomy and pathology. At present, the research team is concerned with a number of lung diseases, especially emphysema and bronchitis.

"Three-dimensional study of the lung will allow investigators to become familiar with the actual architectural pattern that has been relatively unknown to those who have studied lung anatomy and pathology by conventional methods," Dr. Boren said.

Key to the new method is fixing the lung specimen in an inflated state more closely approximating the natural state. A formaldehyde vapor is passed through the lung for five days during the time fixing occurs. To prevent deflation and shrinkage of the lung, as well as to allow complete drying, air alone then is passed through the lung for an additional seven days.

The specimens obtained are dry, rigid, non-fragile, and inflated to a size closely approximating the living state. They may be studied almost in their entirety by cutting sections which can be viewed by stereoscopic microscopy or more conventional means.

Differential Diagnosis of Hyperglycemia and Melituria

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New Orleans, Louisiana

NOT LONG AGO, I was told that diabetes is a hobby, not a disease. This is a pleasant idea and one to warm our hearts. Unfortunately, it is highly unrealistic. To tell a patient he has diabetes is to deal a stunning blow to his emotional composure, and labeling him a diabetic jeopardizes his financial future. Consequently, to diagnose a trivial deviation of carbohydrate metabolism as diabetes mellitus is more than a trivial error. Perhaps equally or more serious is the error of failing to recognize the case of impaired glucose tolerance whose cause, though it may seriously threaten the patient's life, is correctable or controllable.

Definition

The subject before us is notorious for presenting difficult questions of definition. Without devoting all of the allotted space to semantic arguments, I feel compelled to deal with some of these. The first is the definition of diabetes mellitus. I know of none that is universally accepted. For the purposes of this discussion, diabetes mellitus will be defined as a disease of unknown cause characterized by permanent impairment of glucose tolerance. A virtue of this definition is that it makes possible separation of those cases of impaired glucose tolerance with recognizable cause and those of normoglycemic melituria from the vast mass of what must still be called "true" diabetes.

But the definition has several defects. Only two of these will be mentioned. One is that it defines the disease entirely in terms of one aspect of carbohydrate metabolism. Another, and the one I would like to examine, is that the phrase, impaired glucose tolerance, itself has an imprecise meaning.

At first thought it would seem unnecessary to devote space to defining "glucose." Yet, in many laboratories "blood glucose," as it is determined and reported, is only partly glucose. Many popular techniques measure in one lump, so to speak, a number of other reducing substances, such as glutathione, cysteine, and ergothioneine which, as far as I know, have little or no significance in the diagnosis of diabetes. It was thought that the nonglucose reducing substances contributed a fairly constant component (20 to 30 mg. per 100 ml.) to the value obtained for blood glucose concentrations by these techniques and were therefore relatively unimportant in the detection of hyperglycemia. Mosenthal and Barry[1] showed that this is not correct. Schales and I[2,3] have confirmed their observation using another method of determination. In examination of 332 samples of blood, we noted that the differences between the value for total reducing substances and those for glucose were not 20 to 30 mg. per 100 ml. but 6 to 75 mg. per 100 ml. In a number of instances blood that contained a normal concentration of glucose seemed to be hyperglycemic because of a large concentration of nonglucose reducing material.

TABLE I. SOME NON-DIABETIC CAUSES OF IMPAIRMENT OF GLUCOSE TOLERANCE

A.	Diet—carbohydrate starvation
B.	Exogenous hormones
	1. ACTH and some adrenal cortical hormones
	2. Insulin
C.	Prolonged immobilization
D.	Nonspecific "stress," e.g. burns, acute and chronic infections, operations
E.	Obesity
F.	Hepatic insufficiency
G.	Glycogen storage disease
H.	Certain pancreatic lesions
	1. Carcinoma of the pancreas
	2. Acute pancreatitis and sequelae
	3. Post-pancreatectomy state
	4. Islet cell tumors
I.	Hemochromatosis
J.	Postgastrectomy state
K.	Uremia
L.	Certain endocrinopathies
	1. Acromegaly
	2. Cushing's syndrome
	3. Pheochromocytoma
M.	Certain brain injuries

Finally, in our semantic progress, we come to the phrase "impairment of glucose tolerance." Most people would agree that consistent, substantial elevation of fasting blood sugar concentration is adequate evidence of impaired glucose tolerance. In the absence of this, some definition of normality, and by inference abnormality, of the response to a glucose load test must be sought. Of these tests the most commonly used is the simple oral glucose tolerance test. With respect to interpretation of this test, the American Diabetes Association suggested the following as normal: a fasting value below 100 mg. per 100 ml., the two-hour value

Presented in the Section on Diabetes, Pan American Medical Congress, Mexico City, Mexico, May 6, 1960.

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falling to at least this level, and a value not in excess of 150 mg. per 100 ml. at any time during the procedure. All these values are for venous blood using a "true" glucose method. But other definitions are sometimes used. For example, Conn[4] considered a value of 160 mg./100 ml. at one hour and 110 mg./100 ml. at two hours to be normal.

In recent years, evidence has been presented that in this test minor deviations from normalcy, according to the standard definition, lack precise clinical significance. For example, in a prognostic study Ungar and Madison[5] observed that, after five to seven years, among forty-six people who originally showed minor abnormalities during the test, only 15 per cent had become overtly diabetic. More precise tests of the rate of

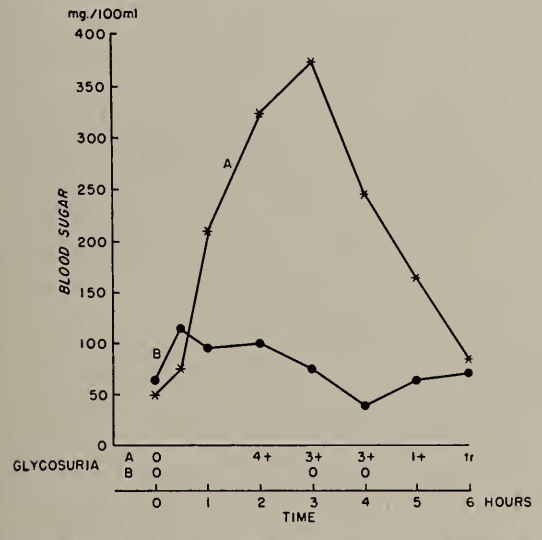

Fig. 1. Patient's glucose tolerance curves after a three day fast (A) and after three days of normal eating (B).

glucose removal from the blood have been developed but in these, too, the limits of normal variability appear to be in doubt. It becomes evident, therefore, that we are not quite sure where normal glucose tolerance ends and impairment begins. This uncertainty must be kept in mind when one is considering making the diagnosis of diabetes in doubtful cases on the basis of the glucose tolerance test alone.

Non-diabetic Causes of Impaired Glucose Tolerance

In Table I are some *nondiabetic causes of impaired glucose tolerance.* If for nothing else, the table is notable for its length. Each of the items should be considered, however briefly, in the differential diagnosis of diabetes mellitus. I would like to give examples of a few of them.

The effect of starvation on glucose tolerance is shown dramatically in Figure 1. The first highly abnormal result of an oral glucose tolerance test, associated with glycosuria, was found after the patient had

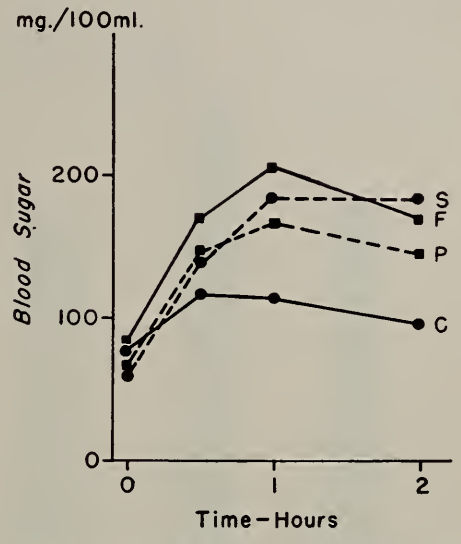

Fig. 2. Composite curves showing the effect of diet on the glucose tolerance of four groups of normal young adults. The groups were fed nothing but carbohydrate (C), protein (P), fat (F), or water (S), respectively, for two days before the glucose tolerance tests. (From Locke, William: Diagnosis of non-diabetic hyperglycemia and melituria. J. Louisiana State M. Soc., 107:433, 1955. After Sweeney.[6])

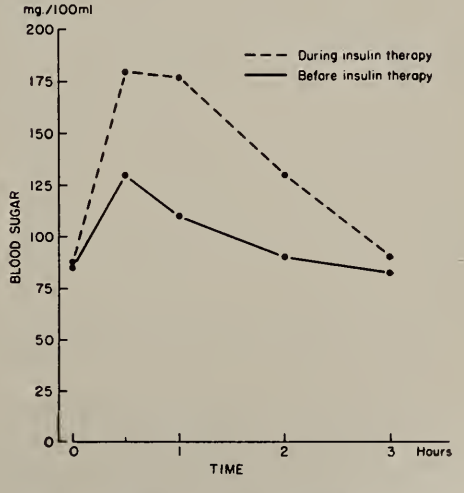

Fig. 3. Effect of insulin therapy on the glucose tolerance of non-diabetic people (after Appel and Hughes.[7])

fasted for three days. The second test was done later, after three days of normal eating and the result was normal. The important dietary deficit responsible for abnormalities of this kind is carbohydrate, as Figure 2,

prepared from Sweeney's data,[6] shows. Four groups of normal young adults were starved, fed fat alone, protein alone and carbohydrate alone, respectively. After two days, glucose tolerance was normal in the

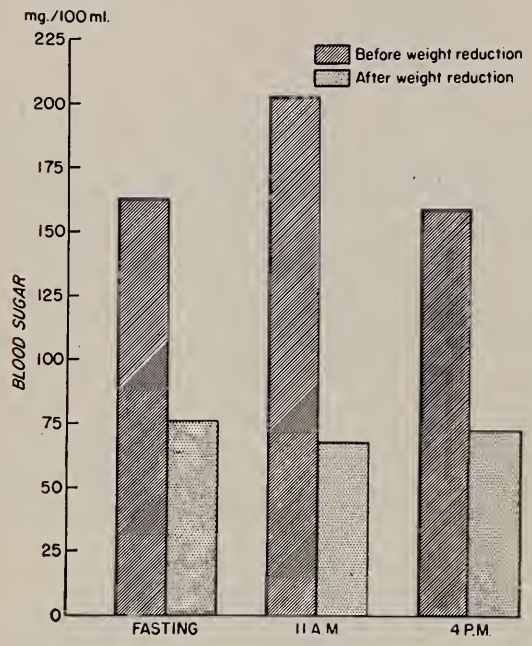

Fig. 4. Effect of diet, which led to a 13 per cent reduction in body weight, on a patient's blood sugar concentration.

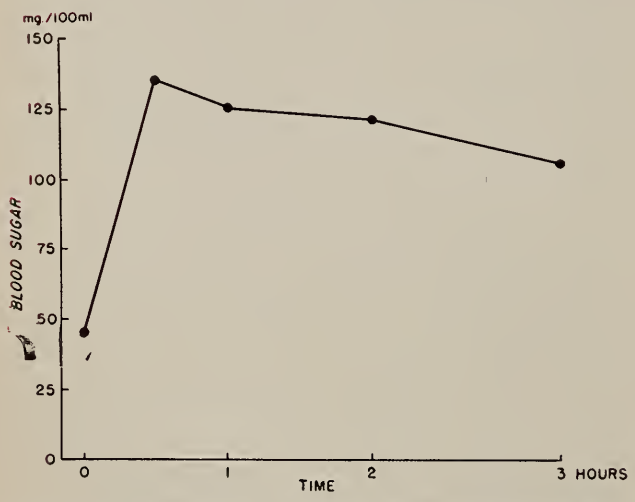

Fig. 5. Glucose tolerance curve in a case of glycogen storage disease.

group fed carbohydrate but not in any of the others.

The data of Appel and Hughes,[7] represented in Figure 3, suggest the hazards connected with attempting to diagnose diabetes in patients who have recently received insulin. In such circumstances, the results of the glucose tolerance test may be misleading.

In Figure 4 can be seen the effect of a 13 per cent reduction in body weight on a dieting patient's hyperglycemia. The blood sugar concentrations declined to less than half their previous levels.

Listed in the table are also some truly pathologic causes of impaired glucose tolerance. One of these is diffuse hepatic disease. Leevy and associates[8] reported their observations on ten alcoholic patients with hepatic disease who were hyperglycemic. Nine were glycosuric. Treatment of the hepatic disease was accompanied by improvement in carbohydrate tolerance in all. The most striking case was a patient whose fasting blood sugar was reduced from 460 mg. per 100 ml. to 90 and whose urinary excretion of sugar was reduced

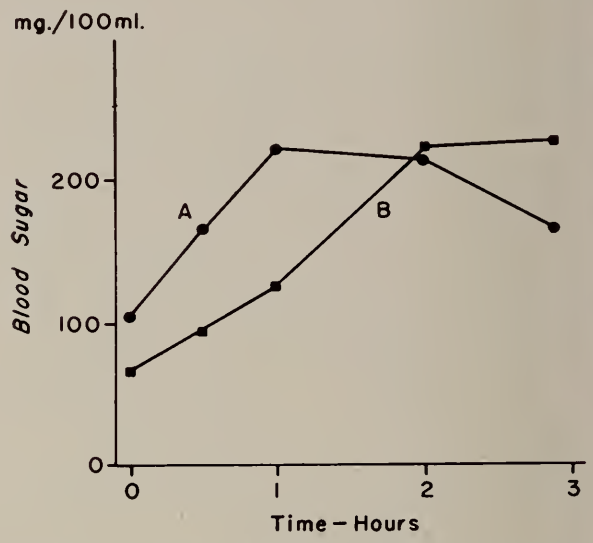

Fig. 6. Preoperative glucose tolerance curves of two patients (A, B) having islet cell tumors (Locke, William, *loc. cit.*).

from 24 gm. per twenty-four hours to none. None of the patients knew of a diabetic relative.

A rather rare hepatic cause for impaired glucose tolerance is glycogen storage disease, as exemplified in Figure 5. The fasting blood sugar is low but the values at the second and third hours are abnormally high.

Parodoxically, functioning tumors of the islet cells are sometimes associated with glucose tolerance curves suggestive of mild diabetes. Whipple and Baumann[9] reported glucose tolerance studies in seventeen patients having islet cell tumors. Preoperatively, eight had glucose tolerance curves that have some resemblance to diabetic curves. In Figure 6 may be seen the preoperative glucose tolerance curves of two patients of mine. One curve is indistinguishable from those seen in mild diabetes; the other had the singular configuration of beginning at a low level and rising progressively during

the three hours of the test. This configuration is highly suggestive of the diagnosis of islet cell tumor.

The occurrence and degree of hyperglycemia among uremic patients are illustrated in Figure 7.

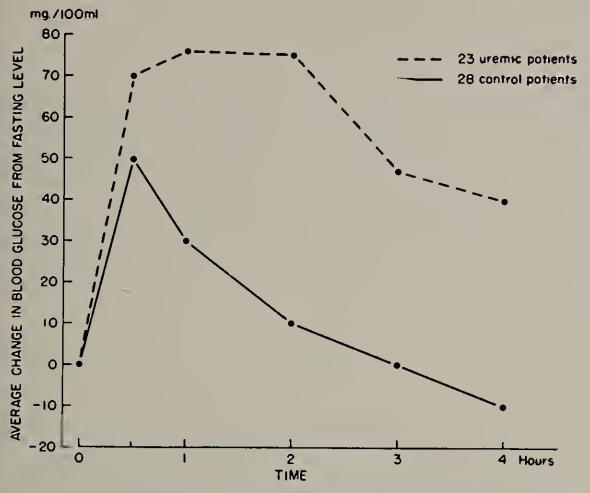

Fig. 7. Composite expressions of glucose tolerance of normal and uremic subjects.

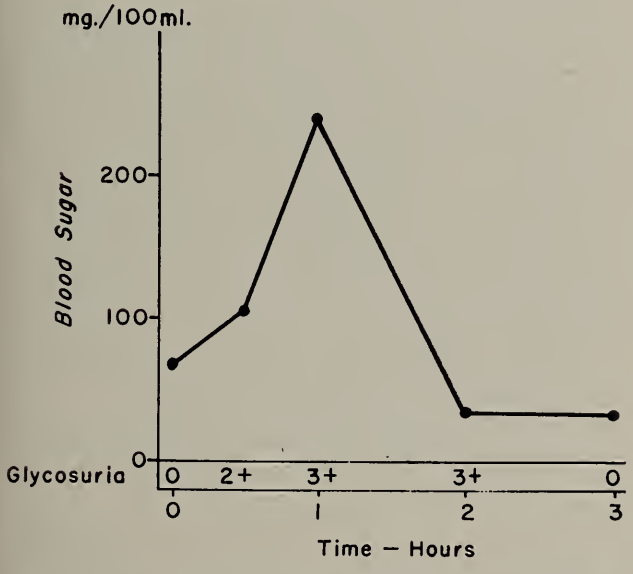

Fig. 8. Glucose tolerance curve of a patient who had had partial gastrectomy (from Locke, William, *loc. cit.*).

Figure 8 is from a post-gastrectomy case. The diagnosis of diabetes mellitus had been made on this patient before the true condition was recognized. Muir[11] found glucose tolerance curves with this configuration in thirty-four of eighty-eight post-gastrectomy patients. Glycosuria occurred during the test in each of the thirty-four.

Figure 9 illustrates that grossly abnormal glucose tolerance curves, sometimes seen in patients having pheochromocytomas, can be restored to normal by removal of the tumors.

Normoglycemic Melituria

Normoglycemic melituria is a much smaller clinical problem than the one just discussed. In Table II are listed some varieties of this condition. Normoglycemic

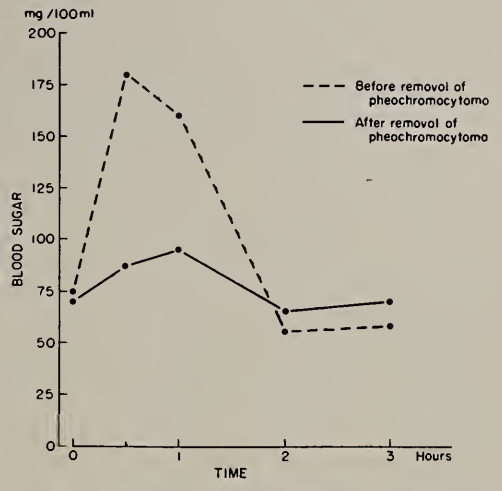

Fig. 9. Glucose tolerance curves of a patient before and after removal of a pheochromocytoma.

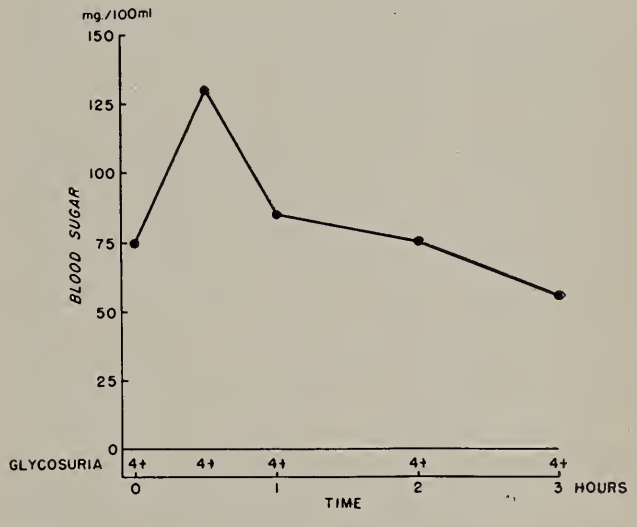

Fig. 10. Renal glycosuria in a man with a diagnosis of diabetes mellitus (from Locke, William, *loc. cit.*).

melituria is recognized by the finding of reducing substance in the urine, by an ordinary clinical laboratory reducing test, in association with normoglycemia. A few words of qualification may be in order. The galactosuria of galactosemia is associated with a high blood level of galactose and consequently of reducing material. The blood glucose level tends to be low but this may not be recognized unless a test specific for glucose is used. Sucrose gives a positive reaction to Benedict's test or the Clinitest procedure only after

hydrolysis. If the urine is tested by a glucose oxidase method, most of these conditions will remain undetected.

Figure 10 represents a glucose tolerance test in a case of renal glycosuria. Every urine test gave a 4+ reaction for sugar. The unfortunate patient, who came to us with the diagnosis of renal glycosuria, related that he had seen a score of physicians because of glycosuria and had been kept miserable by insulin induced hypoglycemic attacks before the correct diagnosis was made.

TABLE II. SOME CAUSES OF NORMOGLYCEMIC MELITURIA*

A. Renal glycosuria
   1. As an isolated finding
   2. During treatment with certain adrenal cortical hormones or ACTH
   3. During later months of pregnancy
   4. As part of Fanconi's syndrome
B. Melituria due to excretion of carbohydrates other than glucose
   1. Lactose
   2. Galactose
   3. Maltose
   4. Mannoheptalose
   5. Pentoses
   6. Fructose
   7. Sucrose**
C. Melituria due to excretion of substances other than carbohydrates
   1. Drugs: salicylates, camphor, menthol, chloral hydrate, morphine, pyramidon
   2. Alkaptone (homogentisic acid)
      a. As an isolated finding
      b. As a manifestation of ochronosis

*The term "melituria", as here used, signifies the presence in urine of substances which give a positive reaction to Benedict's test or to the Clinitest procedure.

**Sucrose gives a positive reaction to Benedict's test or to the Clinitest procedure only after hydrolysis.

(Reprinted from J. Louisiana State M. Soc., 107:433, 1955).

In conclusion, it may be suggested that we sometimes fall into the habit of thinking that the diagnosis of diabetes mellitus is simpler than it really is. Separation of the patient with impaired glucose tolerance from the person without it may depend as much on one's definition of normal as on any difference between the two of prognostic significance. Discovery of unequivocal impairment of glucose tolerance demands a painstaking initial examination and sometimes observation during a period of several months to exclude, or find, one of the many nondiabetic causes of this abnormality. These examinations are especially important if there is no family history of diabetes or if the fasting blood sugar concentration is normal. Anything unusual in the clinical manifestations of the disease requires renewed diagnostic efforts. Great caution should be exercised in diagnosing diabetes among acutely ill patients or those who have recently been injured. Glucose tolerance may return to normal upon restoration of normal health. Ideally, before the critical tests for the diagnosis of diabetes are made, the patient should have all significant correctable disorders eliminated and be well fed, active and free of the effects of drugs and exogenously administered hormones. The finding of glucose or other reducing substances in the urine is not sufficient evidence for making the diagnosis of diabetes mellitus.

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Bone Resistance to Acceleration

An anatomist at The University of Michigan Medical Center and engineers from Wayne State University are trying to find out how much acceleration a human can withstand before his bones start to break.

F. Gaynor Evans, Ph.D., at the U-M and Lawrence M. Patrick and Herbert R. Lissner of WSU are examining the effects of strenuous "G" forces on the intact human skeleton.

Their experiments are expected to help astronauts withstand the physical buffeting of re-entry into the earth's atmosphere, and promote safety for pilots being ejected from high-speed jet planes.

Most previous acceleration studies have been concerned with effects on blood circulation, nervous system and general human behavior.

Ocular Manifestations of Diabetes

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I HAVE THOUGHT of considering this a centennial address, since in 1859 there appeared in Germany two ophthalmic atlases, illustrating fundus changes visible by virtue of the ophthalmoscope described eight years previously by Helmholz, and which permitted a fairly accurate view of the fundus oculi.

The descriptions of the condition now called diabetic retinopathy were amazingly accurate, especially as relates to the well developed or advanced pathology. Physicians familiar with the appearance of diabetic retinopathy have no difficulty, in recognizing most of the visible changes seen today, by examining the plates on this condition contained in these early atlases.

As late as 1937, when I completed my ophthalmic residency, there was the belief that these hemorrhagic and proliferative changes, which were so destructive of vision, were associated with exceedingly mild diabetes, since the incidence of this form of failing vision was so frequently seen with these patients. The exceedingly great interest in the laboratory detection of diabetes had, by 1937, allowed a great number of patients to have been diagnosed for several years, and considerable ophthalmic speculation prevailed as to why diabetic retinal blindness was so seldom seen in the more severe cases of diabetes. Little consideration had been given to the possibility that the onset of diabetic hemorrhages and proliferative changes might not be associated with severity of the diabetes, or that these changes might be related to the duration in years that the individual had suffered the recently detected mild diabetes.

In perhaps the most extensive clinical statistical study, reported by Waite and Beetham in the New England Medical Journal, the eyes of 2,002 diabetics were compared to the eyes of 457 normal individuals. As will be discussed later, the results of this study showed conclusively that the onset of retinal hemorrhages and proliferative changes was related to the duration of disease and not to the severity of the disease or the degree of control. The problem of "why retinopathy was so seldom seen in the severe cases" was answered by the speculation that the more severe diabetics simply had not lived sufficiently long, during these early years of control, to develop blinding retinal hemorrhages and proliferative changes.

More recent evidence implies that the expectancy of life of a diabetic, after the development of stage three of proliferative changes, is but seven years. During these seven years it appears that kidney and other pathology become so severe as to be incompatible with life.

The characteristic vascular lesion of diabetic retinopathy consists of great numbers of minute saccular aneurysms in the retinal capillaries. These lesions were formerly called deep hemorrhages. Often the aneurysms are hyalinized. Two possibilities come to mind in regard to their formation: increased capillary pressure or histochemical changes that allow for the development of these aneurysms. In regard to the former, Friedenwald noted in studying histologic specimens of diabetic retinopathy, that localized retinal venous occlusions were associated with abundant newly formed capillary collaterals. Aneurysms were not seen in these newly formed vessels, suggesting that increased capillary pressure is not in itself sufficient to cause the aneurysmal dilations. Some abnormal weakness of the wall appears to be essential.

There are some who feel that the retinal microaneurysms are actually abortive neovascular buds, arising in response to a vaso-formative factor, much as in the embryologic vascular developments, where a pre-ordained normal supply of vaso-formative factor insures an orderly development of the retinal vascular tree.

Today it is finally accepted that the picture of dia-

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betic retinopathy is not dependent on hypertension, arteriosclerosis, or atherosclerosis. The retinal lesions of the diabetic are closely related to the renal lesions described by Kimmelsteil and Wilson. The latter are often associated with capillary aneurysms in the kidney glomerulus. The typical globular hyalin, glomerular nodule of Kimmelsteil and Wilson may be in fact, a hyalinized saccular capillary aneurysm, showing the retinal and renal lesions to be joint manifestations of the same vascular disease. Ashton and Friedenwald found no distinguishing features in staining and histochemistry between hyalin of the Kimmelsteil-Wilson nodule and the thickened walls of the retinal capillary aneurysm. Both have well developed membranes. No other organs have as yet shown these hyalin nodules other than a rare one that has been seen in the brain.

Frequently it is difficult to ascertain the exact "age of onset" of mild diabetes. By "age of onset" we usually mean "age of first detection", and assume the possibility of a slightly longer period of duration. Since capillary aneurysms are so seldom seen in conditions other than "diabetes of long duration," the presence of these aneurysms is assumed to indicate changes due to diabetes, and the diagnosis of "diabetic retinopathy" is justified. Various estimates have been made relating the onset of capillary aneurysms to the duration of the disease, and vary from "50 per cent of individuals having aneurysms with a duration of sixteen years of diabetes, to an incidence of 95 per cent of individuals expected to have aneurysms with a duration of twenty years of diabetes." Very seldom a patient is seen who has a duration of as long as thirty years and with no retinal aneurysms observed to be present.

When the Kimmelsteil-Wilson disease is sufficiently advanced, so that it may cause pathologic physiology, the hypertension and albuminuria findings are associated with numerous soft, white "cotton-wool exudates" (transudates) in the retina. During the next six or eight years it may be expected that such fundus pathology will continue to develop into stage three, proliferative retinopathy, and that the duration of life after reaching stage three retinopathy will be but seven years. During this interval gross hemorrhage into the vitreous may occur, and with accompanying changes, visual acuity may be reduced to light perception. It is difficult with many patients to attach an exact date of onset of diabetes, particularly if the disease is mild. Waite and Beetham have clearly illustrated the lack of correlation between the onset of hemorrhages (capillary aneurysms) and the NPN, fasting blood sugar, or insulin requirement, the systolic and diastolic blood pressures, or other features of diabetes.

I share the opinion of many ophthalmologists who attest that all diabetics will develop capillary aneurysms if they live long enough.

The peak age incidence of diabetes is between forty and sixty years. Modern medical care of diabetes allows a life expectancy for the diabetic to be estimated at "three-fourths of that of the normal individual of that age." A more accurate estimate might be made if it were related to the age of onset of the disease. If the age of onset is as late as sixty years of life, the diabetes should have less influence on life expectancy than if the age of onset is in childhood. It is expected that most diabetics will, within twenty years' duration after the onset of diabetes, develop aneurysms in the retina, and that one out of every six with aneurysms will eventually live to become blind. Probably in no field of blindness statistics is there greater difficulty in obtaining accurate incidence figures, for the reason that these persons have a medical course of gross hemorrhage into the eye, followed by partial clearing, and again followed by massive hemorrhage. These individuals, even though reduced to mere light perception, live in the hope that there will again be clearing which will enable them to become independent. No category of blind persons is more reluctant to admit of their condition, and frequently these individuals are represented by an age group which requires that they remain at home, dependent upon family custody.

Notwithstanding the exceedingly great progress made in the detection and treatment of diabetes, retinal hemorrhages and proliferative changes still occur, with a duration of disease onset, as predicted by Waite and Beetham in 1935.

Retinal pathology as viewed with the ophthalmoscope is in no way altered from the earliest descriptions made 100 years ago, following the invention of the ophthalmoscope by Helmholz.

In the brief twenty-five years, during which I have been in the practice of ophthalmology, I have seen a generation of diabetics develop the disease, strive to obtain the best possible medical care for the diabetes, and now to be losing their sight from retinal hemorrhages. I am now as unable to do anything of value, to prevent the natural progress of this blindness, as when I terminated my ophthalmic residency. It is with extreme regret that I anticipate the second generation of diabetics in my practice, still as limited in preventive therapeutic advice to stop recurring retinal hemorrhages, once they have developed, as were the early observers, who first described so carefully these changes.

What Can Be Expected of the Glucose Tolerance Test?

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DURING our recent survey of glucose tolerance tests it became apparent that confusion still exists as to what the test measures and what information the test will yield. The glucose tolerance test can give only restricted information about carbohydrate metabolism. Clinicians, however, frequently draw unwarranted conclusions from it. A general disregard for proper conditions necessary to assure reliable and reproducible results was noted. For these reasons, it seems timely to review the physiology, interpretation and indications for the glucose tolerance test.

Physiology

Glucose tolerance can be defined as the maximum amount of glucose the body can dispose of in a unit of time without disturbing the homeostasis of the body. Three principle factors are involved in the disposal of glucose given for a tolerance test: (1) hepatic regulation of the blood sugar by release or storage of glucose, (2) increased peripheral utilization, and (3) increased glycogen storage in both muscle and liver.

Soskin[1] believes that hepatic regulation is one of the most important factors. When the blood sugar is increased rapidly by a glucose load, the liver decreases the rate of glucose release and rapidly stores glucose as glycogen (glycogenesis). At this time there is a marked difference between blood glucose in the portal and in the hepatic veins. In depancreatized dogs whose blood sugar has been stabilized with a constant insulin drip, an intravenous glucose load will produce a normal "tolerance curve;" but in hepatectomized dogs whose blood sugar has been stabilized with a constant glucose drip, an intravenous glucose load will produce a "diabetic tolerance curve."[1,2] Normal glucose tolerance curves—but at a higher level—are produced in a Houssay animal (pancreatectomized and hypophysectomized).[1,2] Therefore, in the experimental animal a normal glucose tolerance curve may occur in the absence of insulin. In clinical practice, a great number of variables are measured other than the ability of the patient to produce insulin after a glucose load. The total patient must be considered whenever a glucose tolerance test is performed.

Factors Affecting the Glucose Tolerance Test

The ability of the body to dispose of a glucose load depends on the integrity of the liver and pancreatic islets, the state of the peripheral tissues, and other modifying conditions. The role of the liver and pancreas has been mentioned.

The state of the peripheral tissues is influenced by activity. The beneficial effect of exercise is well known.[3] Blotner[4] reported an adverse effect of inactivity on glucose tolerance. Sixty-three of seventy adults were found to have decreased glucose tolerance during prolonged inactivity. On retesting those patients who returned to activity, Blotner found the tolerance improved or normal. Prolonged malnutrition or starvation decreases glucose tolerance.[5] Carbohydrate tolerance has been shown to be decreased in the aged by most investigators.[6,7,8] Mosenthal,[9] testing healthy ambulatory subjects, found no decreased tolerance in the aged. It has been suggested that the relative physical inactivity in the elderly accounts for the decreased carbohydrate tolerance.[4]

Various endocrine diseases may modify the body's response to a glucose load.[2,10] Hyperthyroidism increases the rate of gastrointestinal absorption of glucose, resulting in early high curves by the oral glucose

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tolerance test. Hypothyroidism causes decreased rate of absorption of glucose with resultant low or flat curves. Macho,[11] studying glucose tolerance in thyroid disease by intravenous glucose tolerance, found normal or increased tolerance in hyperthyroidism and decreased tolerance in the hypothyroid patients. The tolerances improved in the hypothyroid patients after treatment with desiccated thyroid.

The effect of hyperadrenocorticism (Cushing's syndrome) is one of increasing the rate of gastrointestinal absorption of glucose and increasing peripheral insulin resistance. In Addison's disease there is decreased absorption of glucose and increased insulin sensitivity as measured by the insulin tolerance test. It has been shown by Burns et al[12] that cortisone acetate (200 mg.-400 mg.) by mouth is followed by elevation of the blood sugar within four hours in both healthy and ill subjects. Chronic administration of cortisone to healthy subjects causes an elevation of fasting blood sugars, but this effect wears off in about seven days. Ill subjects pretreated with a single dose of 200 mg. of cortisone showed a significantly greater impairment of glucose tolerance and greater insulin resistance than did normal subjects treated with cortisone. Burns concluded that there is an interaction between stress and adrenal hormones in modifying carbohydrate metabolism. The effect of steroids is an indirect one, making the subject more responsive to stress. Fajans and Conn[13] found that cortisone increased the sensitivity of the oral glucose tolerance test in patients with "borderline" curves and in patients with "latent" or "pre" diabetes. They selected a dose of 62.5 mg. of cortisone given eight and a half and two hours before the glucose tolerance test. (If the patient weighs less than one hundred sixty pounds, 50 mg. of cortisone is given.) In their hands this amount gives the fewest false positives in normal persons. In a follow-up of thirty-four individuals (relatives of diabetic patients) with positive cortisone glucose tolerance tests, ten developed diabetes or prediabetes within six years; whereas in fifty-seven individuals (relatives of diabetic patients) with negative cortisone glucose tolerance tests, only one developed diabetes within this time. Others found similar results using ACTH.[14]

Decreased glucose tolerance has been noted with pheochromocytoma, neoplasia,[15] fever, inflammation and other stress,[3] uremia,[16] various psychiatric conditions,[17,18] in the immediate postoperative period[19] and postpartum period,[20] and in a host of other medical and surgical conditions.[3,21,22,23,24,25] Most of these can be seen to be associated with stress or increased levels of corticosteroids.

Indications for Glucose Tolerance Test

The test is indicated for the diagnosis of diabetes mellitus in patients where fasting blood sugars are normal. When the two-hour post-prandial blood sugar is above the level diagnostic for diabetes mellitus (in our laboratory, above 160 mg. per 100 ml. using serum glucose measurements on an autoanalyzer), we are willing to establish the diagnosis of diabetes mellitus on this basis alone; hence do not resort to the glucose tolerance test in this situation. It is also used for the screening of relatives of diabetic patients[13] and the screening of patients with the "prediabetic state" as suggested by: fetal giantism,[26] perinatal mortality (late fetal and neonatal deaths), rapidly developing obesity especially after pregnancy, and temporary diabetes during any acute stress.[27,28] Any glycosuria must be considered diabetes mellitus until proved otherwise and many times the glucose tolerance test will be the court of last resort.

The test may be indicated in patients presenting with retinal vascular changes and peripheral neuropathies of undetermined etiology, in patients with furunculosis, non-healing wounds and non-healing fractures, xanthosis, carotinodermia, and in certain other conditions occasionally associated with diabetes, for example, gout and carcinoma of the fundus of the uterus.[28]

When extended to five hours, the test is helpful in the investigation of the patient with spontaneous hypoglycemia.[29] It must be remembered that reactive hypoglycemia is occasionally associated with early diabetes mellitus.[13,28]

The glucose tolerance test is not indicated in patients with persistently elevated fasting blood sugars and in established diabetes mellitus, because the test does not quantitate the severity of the disease or mode of therapy. The oral glucose tolerance test may be difficult to interpret in conditions which disturb the tolerance curves due to variability in gastrointestinal absorption of glucose such as: hypo- and hyperthyroidism, Cushing's disease, Addison's disease, intestinal malabsorption diseases, and postoperative conditions such as gastrectomy and gastroenterostomy. Zollinger and Hoerr[24] showed that postgastrectomy and gastroenterostomy patients have abnormally rapid glucose absorption due to the rapid emptying of food into the jejunum. This resulted in early high curves followed by hypoglycemia in two to three hours.

Conditions of the Test

For reproducibility of results and to facilitate ease of interpretation, the test must be done under stand-

ardized conditions. Much of the unreliability of the oral glucose tolerance test stems from the failure to standardize the conditions of the test.

A preparatory diet of 300 gms. carbohydrate for a minimum of three days is considered essential.[5,13] Conn[5] showed that patients with prolonged malnutrition may need more than five days of high carbohydrate feeding to effect a complete return of normal carbohydrate tolerance. Wilkerson[30] recently published data on the effect of various preparatory diets on glucose tolerance of healthy men and women. He suggested that the importance of the 300 gm. carbohydrate diet is exaggerated. In criticism of this view, his subjects were all healthy and previously were fed on institutional diets (high in carbohydrate). The longest period on a restrictive diet was seven days, and still these subjects on the 50 gm. carbohydrate diet showed significant elevations of the one-hour blood sugar, although admittedly still within normal limits. While many of Wilkerson's points are well taken, dietary standardization seems advisable to us.

The patient when tested should be twelve to fourteen hours post absorptive. The test should be performed in the morning with the patient near basal conditions.

Other factors that clinicians should try at time of test to standardize or consider so that its interpretation is facilitated are: physical activity, fear and other emotional influences, body posture during the test (recumbency tends to delay gastric emptying), the concentration and dose of glucose solution administered (highly concentrated solutions delay gastric emptying), and fever or even the mildest infection such as a cold.[29] As stated previously, carbohydrate tolerance is decreased during time of acute stress (fever, inflammation, surgery or trauma) and in the immediate post stress period so that no valid interpretation can be drawn from the test unless it is carried out after the period of acute stress has passed.

Technical factors that should be standardized are the site of the blood sampling (capillary blood sugars are higher and less reliable then venous), and the method used for the blood glucose determination.[29] In comparing the Folin-Wu and Somogyi-Nelson (true glucose) methods on venous blood, Mosenthal[9] found fewer false positives by the latter. This is due to the variable amounts of non-glucose reducing substances included in the Folin-Wu method.

The use of certain drugs may also affect the glucose tolerance curve. Anti-cholinergic drugs may slow gastric emptying time. Sedatives, hypnotics and salicylates in large doses have been shown to affect the curves.[29] The effect of steroids has been mentioned.

Test and Criteria for Interpretation

The test most useful in clinical practice is the three-hour oral glucose tolerance test. Although we believe the two-hour value after the loading dose of glucose is the key value, the three-hour value may be of some help in estimating the severity of the metabolic disturbance in cases showing delayed curves at two hours.

TABLE I. UPPER LIMITS OF NORMAL FOR VENOUS BLOOD BY THE ORAL GLUCOSE TOLERANCE TEST

	FBS	Peak	2 Hours	Probable Diabetic 2 Hours
Fajans & Conn (13) (Somogyi-Nelson)	110	160	110	110-120
Mosenthal (9) (Somogyi-Nelson)	100	150	100	100-110
Moyer & Womack (31) (Folin-Wu)	120	170	125	125-140

The test is performed by giving the patient 100 gm. (or 1.75 gm./kg.) of glucose in 500 cc. of chilled lemon flavored solution after the fasting blood sugar is drawn. Blood sugars are drawn at hourly intervals for three hours following the glucose load. Some investigators also draw a ninety minute specimen, but this is not necessary in a great majority of tests unless a rebound is suspected at two hours. Blood sugar determinations are obtained by the Somogyi-Nelson method. If the Folin-Wu method is used, the above limitations should be kept in mind. We find the criteria of Fajans and Conn[13] to be the most satisfactory (Table I).

A peak venous blood glucose of greater than 160 mg./100 ml. and a two-hour blood sugar of 120 mg./100 ml. or greater is diagnostic of diabetes mellitus. A "probable diabetic curve" would be a one-hour value of 160 mg./100 ml., a ninety minute value of 135 mg./100 ml. or above, and a two-hour value between 110-120 mg./100 ml. A peak blood sugar above 160 mg./100 ml. in itself is not significant if the remainder of the curve falls within normal limits. The two-hour blood sugar is the critical value. Fajans and Conn[13] state that terminal hypoglycemia occurring three to five hours after a glucose load in individuals who exhibit mildly abnormal curves should reinforce one's suspicion of early diabetes mellitus rather than rule it out.

Reliability and Reproducibility

Mirsky[32] has stated that anyone can be labelled diabetic if a sufficient number of oral glucose tolerance tests are performed. Soskin[1] goes so far as to state that

the oral glucose tolerance test has no practical value. Unger,[33] in screening apparently healthy subjects, found that sixty out of one hundred fifty-two had two hour blood sugars over 110 mg. per cent (Mosenthal's criteria). Forty-nine patients were retested with only 75 per cent reproducible results. In contrast, Wilkerson,[20] screening large numbers of pregnant women, found a high degree of specificity and sensitivity. Fajans and Conn,[13] testing one hundred twenty-seven healthy subjects without family history of diabetes or large babies, found only one diagnostic curve and one probable curve. If specific controls are adhered to as stated above, the test will give consistent results.

The Intravenous Glucose Tolerance Test

Because of the alleged variability of the oral glucose tolerance test as cited above, and because of the uncertain gastrointestinal absorption of glucose in some conditions, some investigators have championed the use of the intravenous glucose tolerance test.[1,25,29]

In favor of the test, if standardized, it is reliable, reproducible, and it gives sharp distinction between mild diabetes and normals.

Arguments against the intravenous test are: a greater number of blood samples are needed, an intravenous injection is required, and it is likely that the intravenous introduction of glucose into the body is less physiological than its absorption into the portal system.[29]

There is at present no standardized intravenous method. The rapid method (25 gm. of glucose given in four to five minutes) is becoming more popular.[25,34,35] The intravenous tolerance test, like the oral glucose tolerance test, does not detect blood glucose flow in and out of the glucose pool so that abnormalities in which two antagonistic processes are occurring simultaneously may be missed, for example, in a Houssay animal.

The intravenous glucose tolerance test is indicated in those conditions that affect glucose absorption from the gastrointestinal tract such as: postgastrectomy and gastroenterostomy, hyper- and hypothyroidism, Cushing's disease, Addison's disease, and in intestinal malabsorption defects. The most common reason for using the intravenous method is nausea with an oral glucose load.

Summary

1. The oral glucose tolerance test is a useful and reliable clinical test if performed under proper standardized conditions and if interpreted in the light of the patient's total condition.

2. In the detection of diabetes, it is not necessary to draw blood samples for longer than three hours. The two-hour specimen is the critical point of the test.

3. In functional hypoglycemia, the five-hour oral test is preferred.

4. In certain conditions affecting gastrointestinal absorption of glucose, the intravenous test should be used.

5. Each doctor or group should use one test consistently and thus gain experience interpreting data from it.

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Hypertension Causes

F. James Conway, M.D., of the Hypertension Unit at The University of Michigan Medical Center, reports that about one person in five will have high blood pressure (hypertension) in later life, but medical science does not know why.

"Certain disorders of the kidneys and endocrine glands cause a few cases of high blood pressure; however, we never identify an actual cause in most patients."

Salt, fatty diets, and the rush and stress of modern life all seem to contribute to hypertension, he said. "Although each has been blamed for causing the disease, nobody has been able to prove it."

Dr. Conway made these statements over a radio broadcast co-sponsored by the State Medical Society and the U-M Medical Center.

"The person who leads a rushed and harrassed life will aggravate a hypertensive disorder," Dr. Conway pointed out. "Over-weight also causes greater suffering from high blood pressure. But neither stress nor overweight nor heavy salt diets by themselves will cause the disease."

The Intravenous Tolbutamide Response Test

Initial Observations

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THE STANDARD oral and intravenous glucose tolerance tests are widely used to establish the diagnosis of diabetes mellitus when random blood sugar values are normal. The ability to assess glucose tolerance by other means would be helpful. An alternate method would permit greater diagnostic confidence in borderline cases. This is particularly true since some have questioned the validity of the glucose tolerance test.[1] Everyone agrees that a shorter test would be preferable.

The advent of the oral hypoglycemic agents has altered therapeutic approaches and has stimulated clinical investigation in diabetes. Mirsky and co-workers[2] noted that the hypoglycemic response to oral tolbutamide differed when the patient with diabetes was compared to the patient without diabetes. The hypoglycemic response in the latter was rapid and transient; while the response in the patient with diabetes showed a more gradual decline. Following the administration of intravenous tolbutamide, Unger and associates[3] have been able to separate patients with diabetes from those without diabetes with reasonable accuracy. Barros Barreto and Recant[4] have applied this test more recently to the detection of the "pre-diabetic."

This paper records our initial observations with the "intravenous tolbutamide response test." We were obliged to determine our own criteria of responsiveness, since the method of measuring the blood specimens for glucose used by us differed from that of Unger.

Method

In the fasting state, one gram of sodium tolbutamide* dissolved in 10 ml. of sterile distilled water is injected intravenously over a two-minute period. Blood for glucose is drawn prior to and at twenty and thirty minutes after the injection. At thirty minutes the test is terminated and the patient is given 15 grams of carbohydrate orally. Serum is analyzed for glucose by a modification of the method of Hoffman,[5] using the autoanalyzer.[6] In our laboratory a fasting serum glucose under 130 milligrams per 100 ml. is considered normal.

Sixty-six patients have been tested. Twenty-nine have diabetes and thirty-seven are free of diabetes. All patients with diabetes were sufficiently mild to require dietary therapy only. Prior to the intravenous tolbutamide test, the exact status of glucose tolerance in each case was determined. Standard glucose tolerance tests were performed in the majority of the non-diabetics and in many of the patients with diabetes. The status of glucose tolerance in some patients was established by multiple post-prandial determinations of serum glucose. Each patient consumed a standard 300-gram carbohydrate diet for three days prior to the intravenous tolbutamide test. All patients were ambulatory, afebrile and free of acute stress when the test was performed. The patients without diabetes had fasting serum specimens for glucose ranging from 65-120 milligrams per 100 ml. with an average of 82 milligrams per 100 ml. The average fasting serum glucose in the group with diabetes was 117 milligrams per 100 ml. with a range of 75-200 milligrams per 100 ml. Eight patients with diabetes had fasting levels of serum glucose above 130 milligrams per 100 ml. No patient received more than one test.

Results

Figure 1 presents the percentile fall of serum glucose in both groups at twenty and thirty minutes following the injection of sodium tolbutamide. The mean percentile fall in serum glucose from the fasting level in the group without diabetes was 29 per cent (range of +10 to —69 per cent) at twenty minutes and 35 per cent (range —13 to —74 per cent) at thirty minutes. In the group with diabetes, the mean percentile fall in serum glucose was 9 per cent (range of +4 to —27 per cent) at twenty minutes and 14 per cent (range of 0 to —42 per cent) at thirty minutes.

A study of Figure 1 suggests that a 20 percentile fall in serum glucose thirty minutes following the injection of tolbutamide will separate maximally the

From the Division of Metabolic Diseases, Henry Ford Hospital, Detroit, Michigan.

*We are indebted to the Upjohn Company, Kalamazoo, Michigan, for the generous supply of sodium tolbutamide.

study group with diabetes from the one without diabetes. The wide range of results at twenty minutes in the non-diabetic group vitiates this specimen, even though 80 per cent of results in the diabetic group show a fall of less than 20 per cent. However, at thirty minutes, thirty-four of thirty-seven patients without diabetes showed a fall in serum glucose of greater than 20 per cent; while twenty-one of twenty-nine patients with diabetes showed a fall in serum glucose of less than 20 per cent.

The decrease in serum glucose in milligrams per 100 ml. at twenty and thirty minutes was studied. No separation of the two groups was noted. The absolute levels of serum glucose in milligrams per 100 ml. at twenty and thirty minutes were then analyzed. Thirty-six of thirty-seven patients without diabetes had a serum glucose level below 80 milligrams per 100 ml. at both twenty and thirty minutes. In the diabetic group, twenty-two of twenty-nine patients had levels of serum glucose above 80 milligrams per 100 ml. at both twenty and thirty minutes. These interesting results are tempered by the fact that the average fasting level of serum glucose in the non-diabetic group was 82 milligrams per 100 ml.; while 117 milligrams per 100 ml. was the average fasting level in the group with diabetes. Ten patients with diabetes had fasting levels of serum glucose below 100 milligrams per 100 ml. Eight of these had serum glucose levels below 80 milligrams per 100 ml. at either twenty or thirty minutes. The percentile fall in serum glucose from the fasting level is the best way of expressing results and effecting separation of the two groups.

The accuracy of interpretation of our results is based upon two assumptions. First, the initial analysis of glucose tolerance by standard methods is accurate; and second, the 20 percentile line at thirty minutes gives maximal separation. We believe the first assumption to be highly accurate; thus those patients in the non-diabetic group are truly free from diabetes and likewise for the diabetic group. Ultimately a rigid division in percentile fall in serum glucose from the fasting level between the non-diabetic and diabetic groups may not stand. However, for purposes of simplicity in this study we have arbitrarily chosen it as the maximal point of separation. With the accumulation of more experience with this test, a range of separation between the diabetic result and the non-diabetic result may well evolve. Indeed, a range of separation may be preferable. Using the 20 percentile fall thirty minutes after tolbutamide as the dividing line between diabetic and non-diabetic, those cases with a fall of greater than 20 per cent should be free of diabetes, while those cases with a fall of less than 20 per cent should have diabetes. As mentioned above, thirty-four of thirty-seven patients without

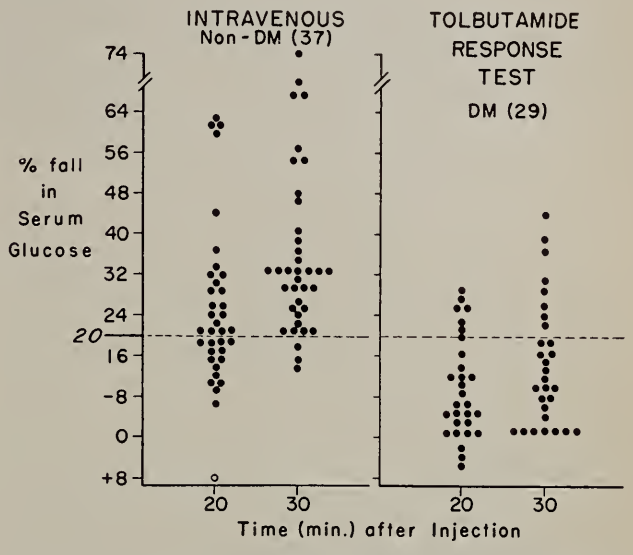

Fig. 1. Percentile fall in serum glucose at twenty and thirty minutes following the intravenous injection of one gram of sodium tolbutamide.

diabetes showed a fall in serum glucose of more than 20 per cent at thirty minutes. Hence there were three false positive results (non-diabetics whose fall in serum glucose was less than 20 per cent). In the group with diabetes, twenty-one of twenty-nine cases showed a fall in serum glucose at thirty minutes of less than 20 per cent. Eight cases in this group had false negative results (diabetics whose fall in serum glucose was more than 20 per cent).

Analysis of False Results

False positive results: All three patients without diabetes whose serum glucose fell less than 20 per cent from the fasting level had true false positive tests. All had perfectly normal glucose tolerance tests prior to the intravenous tolbutamide test.

False negative results: The eight patients with false negative results are interesting. Three patients had true false negative responses. Their glucose tolerance tests were diabetic in type, yet at thirty minutes the fall in serum glucose was greater than 20 per cent of the initial level. The tolbutamide test in a fourth patient was performed incorrectly. This test was done three hours post-prandially rather than in the fasting, post-absorptive state. The other four patients with false negative results were known diabetics who were

in remission at the time of the study. These patients with mild diabetes had been able to convert an abnormal glucose tolerance test (in the past) to normal through rigid weight control. At the time of the tolbutamide test, these patients had normal glucose tolerance. These patients show compatible rather than contrary results when comparing the tolbutamide response and glucose tolerance tests. Therefore, out of sixty-six tests, there were only three true false positive results and three true false negative results.

Discussion

Any test that measures insulin activity indirectly, as do both the glucose tolerance test and the intravenous tolbutamide response test, will yield a specificity and sensitivity less than 100 per cent. It seems reasonable to pursue a test with a specificity of three true false positives out of thirty-seven cases and with a sensitivity of three true false negatives out of twenty-nine cases. The clinical usefulness of any test depends upon its ease of performance and safety as well as its inherent validity. The oral glucose tolerance test is perfectly safe but many times is inconvenient because of its duration. The vagaries of intestinal absorption including the vomiting of the test dose of glucose may lead to problems of interpretation. The intravenous glucose tolerance test is too cumbersome for general use and is no shorter than the oral variety. The thirty-minute intravenous tolbutamide test overcomes many of these objections. Its technique is simple. It is brief. Prolonging the test to one to two hours, as has been suggested,[7] seems to rob it of one of its main advantages—brevity. We have no data to show the effect of prolongation of the test on its accuracy, but we believe that if two hours is to be spent, one might as well use the glucose tolerance test. Of course, much more experience is necessary with this test before we can substitute it for a glucose tolerance test with confidence. Many times the intravenous tolbutamide response test will be used in conjunction with the glucose tolerance test to improve the diagnostic accuracy in a given clinical problem. Nevertheless, with confidence established in the accuracy of the tolbutamide test, one can easily visualize its substitution for the standard glucose tolerance test.

We believe the safety factor of this test is good. Up to the present time, we have had no untoward toxic, allergic or anaphylactoid reactions. Hypoglycemia during the test has been no problem. As a precaution we give 15 grams of carbohydrate at the end of the test. We do not give intravenous tolbutamide to any person with known sulfonamide sensitivity.

Based on our present experience, we believe the intravenous tolbutamide response test deserves further study. With only six false results out of sixty-six cases, it seems reasonable to continue an analysis of the test. We plan to continue the present technique, eliminating the twenty-minute specimen as sensitive enough but much too non-specific to be rewarding. The 20 percentile fall will be used as the separation point between patients with and without diabetes until further study indicates the need for a change in criteria. As mentioned earlier, a broader zone of separation may be necessary. With present knowledge and experience, it should be perfectly clear that we cannot diagnose diabetes with this test. We can only compare our results with accepted standards. Further experience will either bolster our confidence in this test or dictate its abandonment. If its present sensitivity and specificity are confirmed, one can easily visualize ultimate usefulness with appropriate clinical problems.

Summary

The serum glucose response to one gram of sodium tolbutamide intravenously was analyzed in sixty-six patients, twenty-nine with diabetes and thirty-seven without diabetes. Thirty-four of thirty-seven patients without diabetes had a fall in serum glucose thirty minutes after injection of greater than 20 per cent; while twenty-one of twenty-nine patients with diabetes had a fall in serum glucose of less than 20 per cent. Analysis of false results showed three true false positive results and three true false negative results. Further observations are necessary to firmly establish the value of this test as a diagnostic aid for mild diabetes mellitus. The initial results are encouraging.

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The Federal Government and the Nation's Health

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I AM PLEASED and honored to have been invited to meet with you today and to have the privilege of reviewing certain aspects of the place of the Federal Government in the health of the Nation. I do this from a strong conviction of the need for physicians everywhere to have more opportunity to view medicine and its problems from a broad vantage point—something which I know from my own experience is difficult to achieve in competition with the multitude of problems which require one's immediate attention in the day-to-day practice of medicine.

With the exception of a flurry of health activities in the World War I period, the Federal Government played a very limited role in family and community health until about the period of the thirties. During the First World War, for example, the Public Health Service was authorized to provide extracantonment sanitation activities and to inaugurate a venereal disease control program. And when the disastrous pandemic of influenza hit the United States in 1918-19, the Congress appropriated $1 million to the Public Health Service to help suppress this disease.

In the postwar period, however, Federal health activities languished. Then the great depression of the early thirties brought the Social Security Act, which set the stage for much greater participation in public health activities. For the first time, a substantial program of grants-in-aid to the States for health purposes was authorized. Appropriations were made first for general public health activities. Later, specialized programs, such as tuberculosis control, were added. The national venereal disease control program was renewed and strengthened by legislation in 1938.

Despite these measures, the Federal investment in public health and medical research was quite meager until the beginning of World War II. In 1940, for example, a year in which the Federal budget was $6.2 billion, only $3 million was spent for medical research and an additional $19 million for all other health purposes, including grants to the States. This was just nineteen years ago, a period very fresh in the minds of many of us in this room.

With the onset of World War II, and the disastrous influenza pandemic of 1918 far from forgotten, there evolved wide realization of the vital roles that individual and collective health could and would play in the national security. In the early days of World War II there was quick recognition on the part of the Federal Government that a healthy citizenry was vital to winning the war and that a bold attack on the prevention and cure of disease must have stimulus, as well as supplementary financial support, from the Federal Government to enable the country's investigative resources to fulfill their greatest potential.

There was thus established a cooperative approach to medical research on the part of universities, foundations, industries, private citizens and government at local, state and Federal level which it is expected will continue to be the pattern for this country for years to come.

It is hardly necessary to recount the details of what has happened in medicine in the past decade and a half as a result of this cooperative approach to medical research, which had its initial big impetus in the context of a great war. Probably never before in history has there been such an extraordinary accumulation of new medical knowledge and the technological ability to apply this knowledge.

It has been pointed out by Franklin Murphy, as well

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as others, that medicine, being a blend of the physical and natural sciences on the one hand and of the social sciences on the other, has been affected profoundly by the socio-economic as well as by the scientific revolution through which we have been passing in this country since the mid-1940's. Frankly, I am afraid that few of us have fully recognized the magnitude of these socio-economic changes, cognizant as all physicians are of the scientific advances in medicine.

As contrasted with the situation which existed prior to World War II, we now have in America a citizenry keenly interested in health and broadly aware of what now is available in medicine—a citizenry which, through its dimes and dollars, is contributing to all sorts of disease oriented foundations. Furthermore, we have a citizenry which not only expects the search for new medical knowledge to go forward at an even greater pace, but which also will insist increasingly that the great advances in medicine somehow be made available to all of its people.

So much for background.

I would like to talk about many of the numerous and important areas of health interest in the Department of Health, Education, and Welfare. In deference to time and my listeners, however, I will simply highlight several of our current major concerns: medical research, medical education, medical care and international health.

Expenditures for medical research from all sources are at an all-time high in the United States, and this year will be in excess of $500 million. Parenthetically, this sum represents a little less than 4 per cent of the more than $12 billion which our country will invest this year on total research and development.

Although medical research is at an all-time high, there is no doubt that it must be pursued even more vigorously in the future. While many of our serious health problems have come under control, new and more complex ones constantly are arising to be added to those as yet unsolved, such as cancer, heart disease, the degenerative diseases of our aging population, and many others. Some of these new problems are fostered by the way we live. Industrial and suburban growth bring further problems, such as air and water pollution. Very much in the forefront is the job of protecting our population against the hazards of radiation.

As many of you know, a group of distinguished consultants under the chairmanship of Dr. Stanhope Bayne-Jones last June reported the results of their study of medical research and education for former Secretary Folsom. This group then predicted that the current annual national expenditures for medical research would increase to a level approximating a billion dollars by 1970 but warned of the critical problem of professional manpower.

Well-trained professional people in ever larger numbers are going to be needed not only to conduct the search for new knowledge but to bring this knowledge in the form of better medical care to our rapidly expanding population. Speaking to this point, the Bayne-Jones group also reported that: "A minimum of fourteen and as many as twenty new medical schools will have to be built (by 1970) if the existing number of physicians per 100,000 population is not to fall."

Because of the critical nature of the medical manpower problem, and because the Bayne-Jones group concerned itself primarily with medical research, Surgeon General Burney recently appointed another group of consultants to look more closely into the whole question of needs for physicians and to explore ways in which these needs may be met.

The results of this study, which should be completed by the end of August,* combined with the results of an intensive study of twenty medical schools recently completed by the National Institutes of Health and the Bayne-Jones report together should provide a strong basis from which to develop national goals for medical research and medical education for the years ahead. Once these goals have been established, it will be necessary to determine the proper division of responsibility for their achievement as between government at Federal, State and local levels on the one hand and industry and philanthropy on the other. Certainly, unless there is a substantial increase in the production of physicians and other professional health personnel not only the total research effort but the health services of the Nation will be severely hampered in the years ahead.

Of course, the best knowledge, personnel and hospitals in the world will accomplish little if our people cannot afford to pay for the medical care they need. Although we have reached new heights of prosperity in the United States, medical costs represent a serious problem to many American families. In 1957, for example, 44 per cent of all families in this country had incomes below $5,000 and one family in nine had an income below $2,000. Furthermore, as many as one-quarter of all American families today have no cash savings, and in 1958 it was estimated that more than half of our families had savings of less than $500. For these people the costs of long-term and other disabling

*Report of the Surgeon General's Consultants on Medical Education, "Physicians for a Growing America," Public Health Service Publication No. 709, September 15, 1959.

illness can be a crushing burden, particularly if the victim is the breadwinner.

The present administration is convinced that voluntary health insurance represents the best means of helping most people meet the costs of medical care within our traditional American free enterprise system.

Preliminary estimates for December 1958 show that just over 121 million people, or 70 per cent of the population, have some form of hospital insurance. Ten years earlier, in December 1947, the 53 million persons with such protection had represented 37 per cent of the total population.

Insurance against the costs of hospital care is the most widely held type of health insurance. Most, but not all, persons having such coverage also have insurance against some other medical costs. At the end of 1957, 190 million persons—65 per cent of the population—carried surgical care insurance as compared with 18 per cent at the end of 1947.

Insurance covering the costs of physicians' services for other than surgical care increased even more sharply, from 6 per cent at the end of 1947 to 43 per cent, or 72 million, of the population in 1957. Much of this form of insurance, of course, applies only to physicians' visits to hospitalized patients. The 72 million persons with regular medical expense insurance in 1957 included approximately 13 million with major medical expense policies, a form of insurance unknown a decade ago.

In spite of rapid advances in the recent past, the gaps in coverage still are wide. For example, a problem of major importance is that which befalls the worker whose health insurance coverage is included among the fringe benefits of his employment and who loses such coverage during long periods of forced unemployment.

Of particular concern to everyone right now are the serious gaps in coverage of our older citizens, less than half of whom are covered by any kind of health insurance. Heartening recognition is being given to this problem by the American Medical Association, the American Hospital Association, the American Nursing Home Association, the Blue Cross, the Blue Shield and the insurance industry.

From statistics now available—and there is usually at least a year's lapse between actual accomplishment and the availability of statistics to bear out the accomplishment—health insurance coverage for the aged has increased at a fairly steady rate, amounting to between two and two and one-half percentage points a year since 1952. Later statistics may show that this rate has stepped up in the past year.

In any event, are we moving fast enough? There are now 15 million people in this country who are sixty-five years of age and over, and in a very few years there will be 20 million. Older persons have larger than average medical care needs. As a group they use about two and one-half times as much hospital care as the average for the whole population. Their incomes are considerably lower than those of the rest of the population and in many cases are either fixed or declining in amount.

Because both the number and the proportion of older persons in the community are increasing, a satisfactory solution to the problem of providing and paying for adequate medical care for the aged will become more, rather than less, important.

In our society the existence of a problem does not necessarily indicate that action by the Federal Government is either necessary or desirable. This particular problem does, however, merit close attention by the Federal Government, government at state and local level, the medical profession and all others concerned. Public interest has resulted in the introduction in Congress of a number of bills which would provide hospitalization and other medical care benefits to the aged through the Social Security mechanism. At the conclusion of hearings on various Social Security amendments last summer the House Ways and Means Committee asked the Secretary of Health, Education, and Welfare to make a study of alternative ways of providing insurance against the cost of hospital and nursing home care for old-age, survivors and disability insurance beneficiaries. It was my privilege to serve as chairman of the task force set up by the Secretary to make this study. The study is just about finished and the report will be turned over to the Chairman of the House Ways and Means Committee in the very near future.**

In this report the Department takes no position either for or against government intervention. The report is a comprehensive factual document which we believe will be of considerable assistance to us, to the Committee and to all others concerned with the problems which led to the study.

It is obvious that the health needs of the elderly will be taken care of in one way or another. Private, voluntary and local resources are capable of a major contribution toward meeting them. Even though the pressures for action at higher levels of government will

**"Hospitalization Insurance for OASDI Beneficiaries"—Report submitted to the Committee on Ways and Means by the Secretary of Health, Education and Welfare on April 3, 1959.

continue to mount, and even though more comprehensive programs ultimately may prove necessary, we should in any case do everything in our power to strengthen these private, voluntary and local efforts. However one may feel about the necessity for broader State and Federal responsibility, he surely cannot believe that the results would be all gain.

Ability to pay for medical services relates, of course, to the cost of these services, which now are at an all-time high—especially hospital services.

We must continually increase our efforts to keep people well, which efforts cost the country far less in the aggregate than caring for them after they are ill. We must also look toward a better distribution and utilization of expensive and highly skilled personnel.

There is a need to keep people out of hospital beds if at all possible; to make more intelligent use of existing hospitals and other medical care facilities; and to plan future facilities with imagination so that the design and operations are better suited to the needs of the patients to be served.

One of the ways in which we are hopeful of holding the costs of medical care to a minimum is by reorienting care to the particular needs of the individual patient, as, for example, in the progressive or graduated care programs now under intensive study by the Public Health Service. The plan for a general hospital is to divide the patient units into three "zones of care:" a special care unit for patients who are critically ill (sometimes called intensive care units), an intermediate care unit for those who are less critically ill, and a self-care unit for ambulatory patients.

In addition to these three general divisions in the hospital, a comprehensive graduated care plan would include an adjoining unit for long-term care, a chronic disease unit, and a home-care program.

Several advantages have been claimed for these plans: better patient care in a shorter period of time, more effective use of medical and nursing staffs, greater satisfaction for patients, family, physicians and nurses, and, hopefully, as was said before, lower costs to the patient.

The Public Health Service very shortly will publish its initial studies in the whole area of progressive patient care.

Finally, in addition to its concern with domestic health affairs, the Federal Government has a very active interest in the field of international health. In his January 9, 1959, address on the State of the Union the President pointed out that "to advance the cause of freedom we must do much more than help build sound economies" and that "the spiritual, intellectual, and physical strength of people throughout the world will in the last analysis determine their willingness and their ability to resist communism."

This year nearly $100 million will be spent in the field of international health. The following listing indicates the broad scope of the activities supported by these funds.

1. Contributions to the World Health Organization, the Pan-American Health Organization, UNICEF and the United Nations.
2. The world-wide malaria eradication program and assistance to underdeveloped countries in improving community water supplies.
3. Health activities carried out through the International Cooperation Administration under technical assistance agreements with about forty other governments.
4. The research and training grant programs of the National Institutes of Health, which extend overseas as well as across the Nation itself.

There is little question but that collaborative efforts to improve the health of peoples throughout the world provide a real opportunity for reducing world tensions and promoting the cause of world peace and economic security.

In closing, I want to emphasize that the basic aim of the Federal Government in health affairs is that of a partner—a partner with the health professions, educational institutions, foundations, industry, and all levels of government. It is a partner which tries to encourage individual initiative. It is a partner which is attempting to make possible a vigorous and continuing attack on our health problems to the end that we may continue to make gains in the unending war against disease and disability.

"It is an axiom of philosophy that nothing in this world is either altogether bad or altogether good. Pity, the tenderest, the most natural, the most useful of the virtues, is not at all times in place either with the soldier or the priest; both with the priest and the soldier, there are occasions when it must be held in restraint—when confronted by the enemy, for instance. Officers do not make a practice of recommending it on the eve of battle, and in some old book I have read that Monsieur Nicole held it in distrust as the motive principle of concupiscence."—"Manuscript of a Village Doctor," ANATOLE FRANCE.

Immunization of Infants with Quadruple Antigens

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THE USE OF a triple vaccine (DPT) for protection of children against diphtheria, pertussis and tetanus has been accepted practice for some years. The effectiveness of a killed trivalent poliomyelitis vaccine has been demonstrated. The possibility of incorporating four antigens (DPT + polio) in one preparation for vaccination against all four diseases has been a subject of considerable interest because its use obviously would simplify administrative procedure. Results of tests in animals reported by Kendrick and Brown[1] suggested that a combined product had promise and deserved serious study. Recent studies in children with such a product (Quadrigen) by Barrett et al,[2,3] demonstrated immune response of the injected children to each of the four antigens. The results support the reasonableness of the procedure; and they underline the importance of adding data from other areas obtained under different conditions. In the present study, a report is made of observations on a small group of children in the University of Michigan Pediatric Clinic.

Material

1. The quadruple vaccine contained concentrates of the components for each antigen (poliomyelitis, diphtheria, tetanus and pertussis) so that a fully effective dose of each would be present in the 0.5 cc. inoculum.[4] The potency of each component in the vaccine was determined by the standard test procedures prescribed by the Division of Biologic Standards of the National Institutes of Health (NIH). Each individual antigen after combination met or exceeded minimum requirements established for monovalent vaccines.[4-8]

The group of subjects in which the quadruple vaccine was studied consisted of fifty children who were in good health and had received no prior immunizations. Seven of the infants at the start of immunization were two months old, thirty-three were three months of age and eight were four months old. Two children were sixteen months and four and one-half years respectively. Forty-three of the mothers had received poliomyelitis vaccination within two years of the birth of their children. The infants were injected with the quadruple vaccine on the same schedule adopted by the routine Well Baby Clinic program for the standard DPT and poliomyelitis vaccine. Prior to inoculation a blood sample was obtained, and then three monthly injections of 0.5 cc. quadruple vaccine were given intramuscularly. Two to four weeks after the final injection a blood specimen was obtained. Thirty subjects were given a fourth dose of the quadruple vaccine nine to ten months following the primary dose and a blood specimen was obtained two to four weeks later. An additional group of thirty children who were originally part of the study are not included in this report because of insufficient collection of specimens. Blood was obtained to permit testing for poliovirus antibodies (Types I, II, and III), diphtheria and tetanus antitoxin, and pertussis agglutinin. The poliovirus antibody determinations and pertussis agglutinin titers were conducted by the Department of Epidemiology of the School of Public Health, University of Michigan. Tests for diphtheria and tetanus antitoxin were performed according to accepted procedures by the Research Laboratories of Parke, Davis and Company.

Results and Comments

Reactions.—There were no serious untoward reactions following the immunization procedures. Parents were instructed to report any illness and the children

Quadruple antigens were supplied as "Quadrigen" by Parke, Davis and Co. This project was supported by a grant from Parke, Davis and Co.

From the Department of Pediatrics and Communicable Diseases, University of Michigan Medical Center. The assays of all blood specimens for poliomyelitis antibodies and pertussis antibody were performed in the Department of Epidemiology, University of Michigan School of Public Health by Drs. Gordon C. Brown and Pearl L. Kendrick, respectively. Data presented in this report will be part of a larger study to be published at a later date by Doctors Brown and Kendrick. Assays of the sera for diphtheria and tetanus and antibodies were done in Research Laboratories of Parke, Davis and Co., by Dr. E. A. Timm.

were checked at the time of each clinic visit to ascertain any systemic reactions encountered. Eighteen of the group had a mild febrile reaction with less than two degrees of temperature elevation and did not

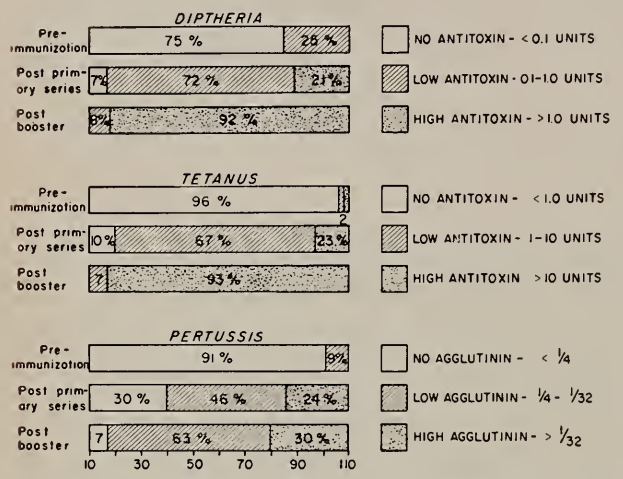

Fig. 1. Response of patients to the diphtheria, tetanus and persussis antigen in Quadrigen. It will be noted that before immunization 25 per cent of these children, mostly two to three month old infants, had low diphtheria antibody levels, 4 per cent had tetanus antibodies and 9 per cent agglutinins against pertussis. Following immunization there was good response to all three antigens. Following the booster dose at twelve months of age, all children had diphtheria antibodies, all had tetanus antibodies, and 93 per cent had agglutinins against pertussis.

require any therapy. Three patients had a moderate febrile reaction of more than two degrees of temperature elevation persisting from twenty-four to seventy-two hours and requiring aspirin administration. No history of vomiting, diarrhea, convulsions or paralysis was elicited. Three had mild local discomfort at the site of injection lasting less than twenty-four hours. No persistent nodules were seen and no rash was observed.

The general health of these children was excellent. There were two children with mild eczema who were placed on allergy diets (these children had strong family history of allergy). None of the children had any serious illness during the period of study and four children had mild surgical problems (umbilical hernia, inquinal hernia). All children received complete health supervision by one of the authors during the eighteen months they were studied.

Pre-immunization Antibody Titers.—The fifty pre-immunization blood specimens were tested for polio myelitis neutralizing bodies, diphtheria and tetanus antitoxin levels and pertussis agglutination titers (Fig. 1). In regards to the latter three antigens, 25 per cent of the group had diphtheria antitoxin levels of greater than 0.1 units per cubic centimetres of serum. Four per cent had greater than 1.0 units per cubic centimetres of serum tetanus antitoxin and 9 per cent of the serums had demonstrable pertussis titers.

As noted, most of the mothers of the infants had received prior poliomyelitis immunization and this is reflected in that only five children were triple negative for poliomyelitis (triple negative—less than one to four antibody titers against all three types). It is of interest that there was no apparent correlation between the time of the mother's vaccination and the level of antibodies at the time of the first blood samples.

By type 38 per cent (19) of the infants were negative to Type I, 42 per cent (21) had a low titer of antibody (from 1:4 to 1:32) and 20 per cent (10) had a high titer (greater than 1:32).

Twenty-four per cent (12) of the infants were negative to Type II, 40 per cent (20) had a low titer and 36 per cent (18) had high titer antibody levels.

To Type III, 44 per cent (22) had no demonstrable titer, 36 per cent (18) had a low titer, and 20 per cent (10) had a high level.

Response to Primary Immunization.—After the completion of the primary series of three 0.5 cc. inoculations, 93 per cent of the infants had responded to diphtheria, and 90 per cent to tetanus with a good protective level of antitoxin. Seventy per cent had a titer of 1:4 or greater on testing for pertussis agglutinins. (The pertussis agglutinins were actually 1:20 or greater, see note in legend of Fig. 1.) The overall polio response revealed that 62 per cent of the infants had significant titers to Type I, 84 per cent to Type II and 76 per cent to Type III. The remainder had negative titers (Figs. 1 and 2).

In regards to pre-immunization titers, of the nineteen subjects originally negative to Type I 42 per cent (8) showed a significant response. Of the twelve originally negative to Type II, 92 per cent (11) developed titers greater than 1:4 and there were 82 per cent (18) of the twenty-two originally negative to Type III who had a good response.

Comparison of those with initial low titers of antibodies revealed that 48 per cent (10) of the twenty-one had significant levels remaining to Type I, 65 per cent (13) of the twenty with low titers to Type II had adequate levels remaining and 43 per cent (8) of the eighteen with low titer to Type II had levels greater than 1:4.

Of interest is the response of those subjects with initial high titers. Seven of the ten with high titers (1:32 or more) to Type I had levels fall to 1:8 to 1:16 and only one subject still had a high titer. Seventy-eight per cent (14) of those with high titer initially to Type II had levels greater than 1:4 following the primary series. However, all these titers except two were moderately lower than initial levels. Ninety per cent (8) of the ten with high initial levels to Type III had significant titers, but again, in all but one subject this represented a drop in titer.

Response to Fourth Injection.—Of the thirty children who received an additional booster of the vaccine nine to ten months after their primary series, the response to the diphtheria and tetanus antigen were excellent with 100 per cent showing protective levels. Pertussis results revealed that 93 per cent had protective agglutinin levels.

In regards to poliomyelitis, it is noted that 57 per cent had adequate levels against Type I, 87 per cent had significant titer against Type II and 77 per cent had measurable titers against Type III. In this group of children, unlike following the primary series, there was little correlation between the pre-immunization and post booster titers.

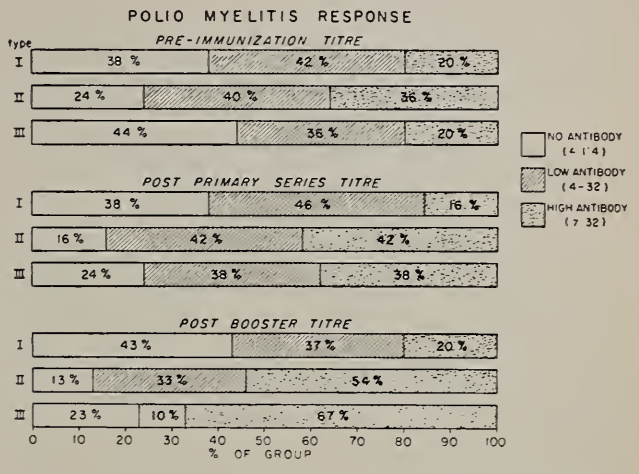

Fig. 2. Response to poliomyelitis antigen in Quadrigen. It is significant that following the booster dose at twelve months of age 43 per cent had no antibodies against Type I, 13 per cent had none against Type II, and 23 per cent none against Type III poliomyelitis viruses. As pointed out in the text, this would indicate the need for additional boosters at a later date.

Discussion

The quadruple vaccine was shown to present no difficulty in administration and there were no severe untoward reactions. Certainly the use of only 0.5 cc. inoculum volume was a decided advantage.

In regards to diphtheria and tetanus, it was shown that excellent responses were evoked. Pertussis response following immunization was significant, although not as effective as the former two antigens.

Note.—In the interpretation of pertussis agglutination titers, it should be pointed out that the small volume, concentrated antigen, rapid test[9] was used and the final serum titers as given here are approximately one-fifth those that would be obtained in the one ml. test. For example, a titer of 1:64 in the test used here would be equivalent to 1:320 in the 1 ml. test.

Poliomyelitis antibody level determinations revealed that the vaccine contained potent antigens capable of evoking excellent responses. Type I was less effective in this study than the other two types in evoking a response, but in individual cases excellent titers were obtainable.

In those infants with high initial poliomyelitis titers, post-primary series antibody levels were less than those obtained in infants with initially low titers. The explanation of this fact may be that it reflects crowding out phenomena[10] or it may be that an adequate antibody response was evoked but masked by initial maternal antibodies.[11] Further studies are being carried out by Doctors Brown and Kendrick to elucidate this problem. Related to this problem is the finding that a considerable number of infants had no demonstrable antibody levels to the poliomyelitis viruses after completing the primary immunization series. Thirty-eight per cent had negligible levels to Type I, 16 per cent had no demonstrable level to Type II and 24 per cent were without significant level to Type III. After a booster dose in thirty subjects, it is to be noted that 43 per cent of the infants had no demonstrable levels of antibody titers against Type I, 13 per cent against Type II and 23 per cent against Type III. Thus there seems to be a certain percentage of infants who do not develop and maintain a significant antibody titer against the poliomyelitis viruses with the routine immunization program when it is started in early infancy.

These results, however, should be considered in relationship to data obtained in infants who have had no poliomyelitis vaccine. This data has been collected in Detroit, Michigan, by Barrett et al, and they found that infants age six to eight months had very low protection against Type I and III and less than 50

per cent had significant titer for Type II. Thus these results when compared to the findings in the immunized group in the study clearly show the effectiveness of the Quadrigen vaccine following the primary series (Table I).

TABLE I. POLIOMYELITIS ANTIBODY TITERS. COMPARISON OF POLIOMYELITIS ANTIBODY TITER IN INFANTS AGE SIX TO EIGHT MONTHS FOLLOWING PRIMARY IMMUNIZATION WITH QUADRIGEN AND IN A GROUP OF SIX TO EIGHT-MONTH-OLD INFANTS RECEIVING NO VACCINE

	Present Study: Six to Eight-Month-Old Infants Response Following Primary Series			Unvaccinated Six to Eight-Month-Old Infants (Barrett et al.)		
	I %	II %	III %	I %	II %	III %
No titer (<184)	38	16	24	80	50	90
Low titer (1:4-1:32)	46	42	33	20	35	10
High titer (>1:32)	16	42	33	0	15	0

In regard to the results following the booster injection, comparison should be made with the findings in unvaccinated one-year-old children and in those infants initially vaccinated after six months of age. It can be seen from Table II that the results in the present study are less than that in the latter group but significantly higher than in the unvaccinated group.

TABLE II. POLIOMYELITIS ANTIBODY TITERS. COMPARISON OF POST BOOSTER TITER IN PRESENT STUDY TO UNVACCINATED INFANTS OF SAME AGE AND TO INFANTS IMMUNIZED AFTER SIX MONTHS OF AGE WHO HAVE RECEIVED A BOOSTER

	Present Study: Twelve to Fourteen-Month-Old Infants Following Booster			Boosters Infants Over Six Months When Immunized (Barrett et al.)			Unvaccinated Twelve to Fourteen-Month-Old Infants (Barrett et al.)		
	I %	II %	III %	I %	II %	III %	I %	II %	III %
No titer	43	13	23	0	3	3	75	60	80
Low titer	37	33	10	20	2	12	5	35	15
High titer	20	54	67	80	95	20	20	5	5

In view of the above findings, the conclusion can be made that very young infants are capable of responding to the quadruple vaccine but that an additional booster (or boosters) will need to be given to those infants immunized prior to six months of age. One method suggested by Barrett et al was to give four injections in the primary series followed by a booster one year later. An additional method may be to give a booster again in the second year. Clinical experience has indicated the wisdom of immunizing infants as early as possible because of the severity of poliomyelitis and pertussis in infants under six months of age.

Summary

This study was carried out in order to test the effectiveness of a recently developed quadruple vaccine incorporating poliomyelitis, diphtheria, tetanus and pertussis antigens.

A group of fifty children (forty-eight infants less than four months of age) received the vaccine as part of the routine Well Baby Clinic program and there were no serious untoward reactions noted. This quadruple vaccine is shown to be a potent antigen capable of evoking responses to all four antigens. Discussion is presented concerning the need for additional booster injections in those infants whose immunization began before six months of age.

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Effectiveness of Resins in the Treatment of Hyperkalemia

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HYPERKALEMIA of sufficient degree to interfere with myocardial function is a major cause of death in acute renal insufficiency. Potassium intoxication occurs in this disease when oliguria is prolonged or when there is an accelerated rate of tissue breakdown causing an increased release of potassium into the extracellular fluid. In the treatment of life-endangering hyperkalemia, intravenously administered hypertonic sodium salts exert an immediate action but this effect is of short duration. The use of insulin and a hypertonic glucose solution will control potassium intoxication as long as twelve hours. Beyond this length of time some form of dialysis or lavage has been required to lower the serum potassium concentration. During the past few years, reports have appeared of the efficacy of cation exchange resins in controlling hyperkalemia. Many of these have been concerned with the use of hydrogen and ammonium cycle resins.[1,2,3] More recently sodium cycle resins have been utilized.[4,5,6,7] This study describes further experience with a sodium cycle carboxylic acid resin* in fifteen patients with renal failure.

Mode of Action and Methods of Administration

A cation exchange resin is a synthetic polymer, each fraction of which contains a functional group (COO^-, SO_3^-, et cetera). The cation attached to such a group is exchangeable for another cation in the surrounding solution (gastric or intestinal secretion) depending upon the relative affinity of the two ions for the exchange position, the concentration of cations concerned (both on the resin and in the solution), and the pH of the medium.[8]

The sodium cycle potassium-free cation exchange resin, while passing along the intestinal tract, will exchange the sodium ions on its functional groups for potassium ions. Calcium and magnesium ions are also removed.[8,9] Removal of potassium from the gastrointestinal juices lowers the potassium concentration in the extracellular fluid and plasma. Resins are insoluble and are not absorbed so that potassium ions which have become attached to the resin are effectively sequestered from the pool of exchangeable body potassium until they are actually eliminated in the feces.

Resins may be given either by retention enema or orally. If given by enema, 20 gms. in 200 ml. water are used. The enema should be retained for at least ninety minutes in order for maximum exchange to take place. This amount may be administered every two hours if necessary. Any water retained in the body from the enema must be included as part of the daily fluid intake.

If the patient can tolerate oral feedings, administration of the resin by this route appears to be more effective. The resin may be mixed with sugar and lemon flavor, adding just enough water so that it can be swallowed. It can also be mixed with butter and sugar to make butterballs. This has the advantage of administering the resin with a minimum amount of water. Two grams of resin can readily be incorporated into each butterball. Usually 20 to 40 grams of resin per day will control hyperkalemia, but if potassium intoxication is threatening more may be necessary. In such instances, it may be given both rectally and orally. The amount of resin required depends upon the degree of hyperkalemia present and the rate at which the serum potassium is rising.

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This study was supported in part by a grant from Eli Lilly and Company.

*Carboxylic Acid Type Resin (Sodium Salt) supplied by Eli Lilly and Co.

THE AUTHOR
John M. Weller, M.D.

Rarely is more than 150 grams of resin needed in twenty-four hours. In these fifteen patients, no nausea or vomiting was noted that could be ascribed to the resin, nor were fecal impactions or diarrhea encountered.

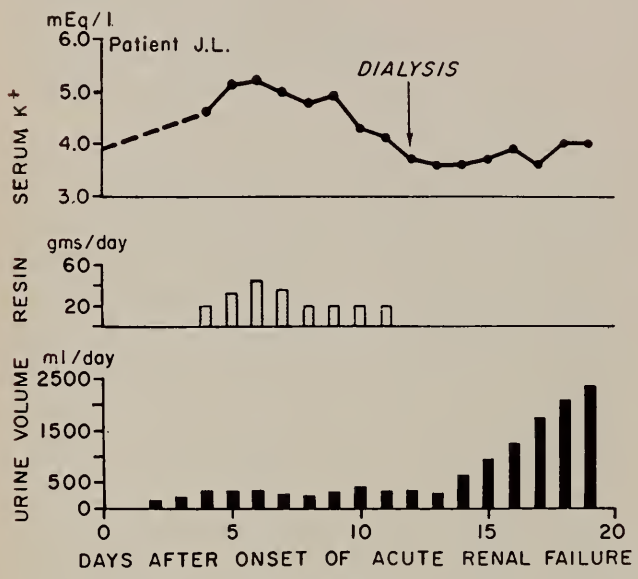

Fig. 1. Control of the serum potassium level with sodium cycle resin in patient J. L., who developed acute renal failure from a transfusion reaction.

Clinical Material

Eleven patients with acute renal failure, two patients with terminal chronic pyelonephritis, and two patients with terminal chronic glomerulonephritis, have been given this resin to control hyperkalemia. Some of these when first seen required the acute administration of insulin and intravenous hypertonic glucose and/or sodium salts because of impending potassium intoxication. However, after resin therapy had been instituted, dialysis for the control of hyperkalemia was not necessary, nor was any other means of controlling the serum potassium concentration required. The following selected cases illustrate various aspects of the use of resin.

Patient J. L., a twenty-five-year-old woman, received two pints of incompatible blood during a Caesarian section. Approximately sixteen hours later she was noted to be icteric. She developed acute renal failure with a fourteen-day period of oliguria. From the fourth to eleventh days of her illness, the patient received daily 20 grams of resin orally plus additional resin by retention enema for the prevention of hyperkalemia (Fig. 1). She was able to tolerate the oral resin in spite of nausea being present. The serum potassium was never over 5.2 mEq./L. Hemodialysis was performed on the twelfth day because of the severity of the uremic symptoms. Recovery was uneventful following the onset of diuresis.

Patient M. C., a nineteen-year-old boy, received a severe injury to his right lower extremity when it was crushed by an overturned tractor. He lay in the field for nine hours before the accident was discovered. Acute renal failure followed with a twenty-day oliguric phase. The serum potassium was 6.9 mEq./L. on the day following the injury and fell to 5.7 mEq./L. in twelve hours after the rectal and oral administration of resin. The resin was then given orally in butterballs. It is to be noted that this patient quite rapidly developed hypokalemia even during the oliguric phase (Fig. 2). This is remarkable in view of the large mass of muscle which was damaged and the extensive hematoma present. Dialysis was performed on the thirteenth day because of uremic symptoms. Diuresis began on the twentieth day and recovery followed, although a permanent residual peripheral neuropathy of the right leg remained.

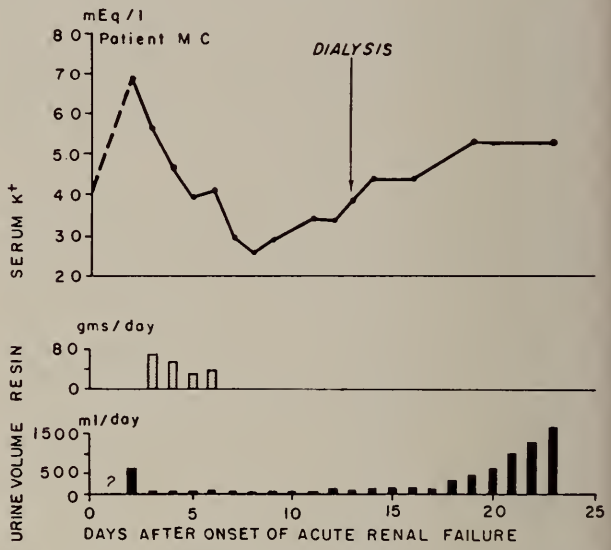

Fig. 2. Lowering an elevated serum potassium concentration to below the normal range by use of the sodium cycle resin in patient M. C., who had acute renal insufficiency subsequent to a crush injury.

Patient L. B., a thirty-six-year-old man, suffered a crushing injury to his right leg when a heavy metal door fell, trapping him for forty-five minutes. The femoral artery was transected but the vessel was plugged with a bone fragment which prevented exsanguination. A graft was inserted in the arterial defect. The patient was hypotensive for several hours both before and after surgery. Acute renal failure ensued with a prolonged oliguric phase. Oral resin was started on the third day because of a serum potassium of 7.1 mEq./L. Seventy grams of resin were given in twenty-four hours. The serum potassium fell promptly to 5.1 mEq./L. and remained in the normal range even after discontinuance of the resin. He died of overwhelming infection on the twentieth day (Fig. 3).

Patient M.B., a fifty-year-old man, had chronic pyelonephritis. Cystectomy and ureterosigmoid transplantation for carcinoma of the urinary bladder had been performed four years previously. He entered the hospital because of persistent vomiting. He was very dehydrated and there was marked weakness and lethargy. The blood NPN was 132 mgm. per

100 ml. and the serum potassium was 8.7 mEq./L. During the twelve hours following admission, 260 grams of resin were given by the oral and rectal routes. Intravenous fluids were administered and the urinary output increased. The serum potassium dropped to 5.4 mEq./L. during this period (Fig. 4). The patient died of uremia on the thirteenth day following admission. Postmortem examination confirmed the presence of bilateral renal staghorn calculi and disclosed a right perinephric abscess.

Discussion

Hyperkalemia was controlled or was prevented from developing in all patients by the use of this resin. Since this type of resin has been utilized, hemodialysis solely for the treatment of potassium intoxication has

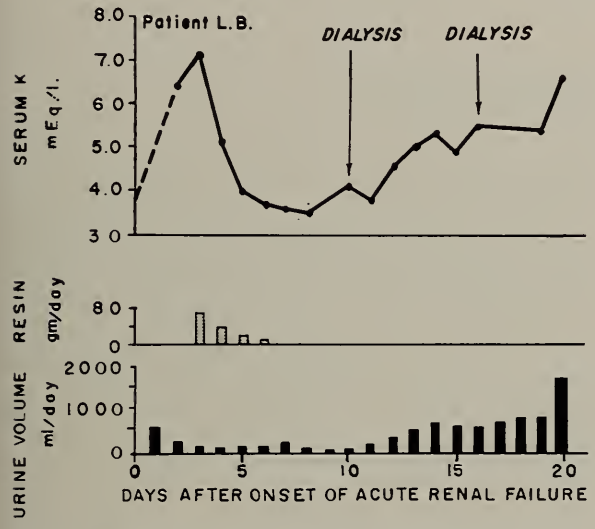

Fig. 3. Prompt reduction of threatening hyperkalemia with orally administered sodium cycle resin during the oliguria of acute renal failure in patient L.B.

not been necessary. Some patients have developed hypokalemia from resin therapy during the oliguric phase of acute renal failure (Fig. 2). Cessation of its administration when the serum potassium goes below 5 mEq./L. will probably prevent this occurence. In using cation exchange resins, care must be exercised to avoid accentuation of the hypokalemia which is sometimes present during the diuretic phase of acute renal failure. It is exceedingly important that these resins should not be used for a continuous period of time in patients with chronic renal disease because of the danger of causing potassium depletion.

A tendency toward hypernatremia has been noted in some patients. This is because the resin donates sodium as it removes potassium. The resin used in this study contains approximately 6 mEq. of sodium per gram of resin. No serum sodium concentration over 155 mEq./L has been noted. A greater danger than hypernatremia would be the expansion of the extracellular fluid volume by the sodium derived from the resin with subsequent edema formation or congestive heart failure. This has not occurred in any of our patients, however, when using this resin very careful attention must be given to restricting the daily total fluid intake.

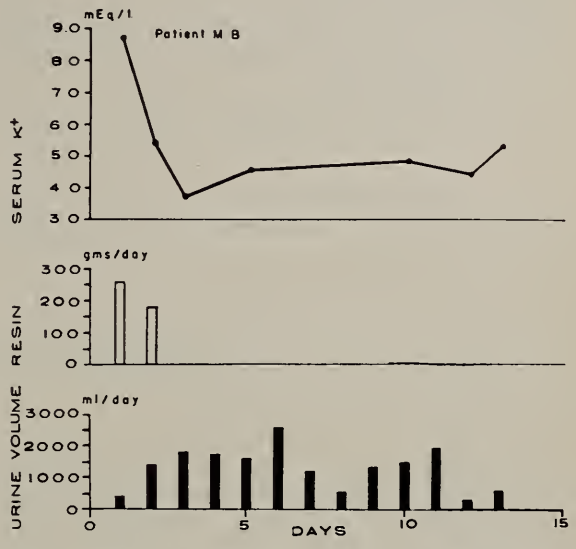

Fig. 4. Effective treatment of severe hyperkalemia with the sodium cycle resin in patient M.B., who had terminal chronic pyelonephritis.

As orally administered resin readily removes hydrogen ions from the upper gastrointestinal tract secretions, there is usually some alleviation of the metabolic acidosis which is the result of impairment of renal function. This is in contrast to the hydrogen and ammonium cycle resins which aggravate acidosis by introducing these ions into the body. Although cation exchange rations may remove significant quantities of calcium and magnesium, tetany was not noted in any of these patients.

Summary

The sodium cycle carboxylic acid cation exchange resin has been effective in preventing or controlling hyperkalemia in fifteen patients with renal failure. It is superior to the hydrogen and ammonium cycle resins in the treatment of this condition. The use of the sodium cycle resin constitutes a distinct advance in the treatment of threatening potassium intoxication and obviates the necessity of dialysis for this indication.

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The Physician's Role in Civil Defense

"The Physician's Role in Civil Defense" was one of the interesting topics at the recent regional meeting of the AMA Council on National Security's Committee on Disaster Medical Care in Washington, D. C.

Discussing this subject was C. J. Wagner, M.D., chief of the Division of Health Mobilization, U. S. Public Health Service.

Based on the findings and calculations made during the 1959 Operation Alert exercise, Doctor Wagner described and summarized the problem 30 days post-attack as follows:

(1) the supply of physicians is insufficient and will remain so, even if each nurse, dentist, and veterinarian is counted as equivalent to a physician,

(2) the number of available hospital beds is grossly inadequate. Even though the professional manpower is also limited, there remains a capability to use effectively several times the remaining hospital beds; and

(3) medical supplies and equipment are grossly inadequate, poorly distributed, and limit the extent to which hospital bed shortages can be corrected by improvision.

Conclusions drawn from this analysis, 30 days post-attack, reveal the medical situation to be desperate but not necessarily hopeless, he said.

"The basic problems are the immediacy and magnitude of the medical care and public health requirements. Almost instantaneously, millions of casualties are in need of treatment. Not only is there a gross disparity between the medical patient load and the available health resources of manpower, supplies, and facilities, but there is a corresponding disparity in all the supporting services, such as transportation, fire and rescue, communications, et cetera. Finally, the radiological fallout in many areas will delay or prevent any organized medical activity for days or weeks."

Dr. Wagner said the first role of the physician, then, is to make it possible for these patients to treat themselves—meet their own health needs—until local conditions permit the physician to treat them. The American Medical Association recognized this problem and made it possible for the Public Health Service to initiate a self-help research project. This will consist of a standardized procedures manual related to a standardized medical kit for use by the layman in self, family, and neighbor care. It will emphasize, in addition to general medical care, hygiene and sanitation, simple methods to be used in the treatment of shock burns, fractures, and hemorrhages, as well as simplified nursing techniques. All these necessary efforts have the purpose of preserving life until the physician can catch up with the patient load.

Once the methods to be used and the medical kit contents are agreed upon, the physician must take an active aggressive role in teaching the layman to use them. At the federal level, little can be done other than provide assistance as required to help the physician in this responsibility. Training aids can be developed and provided, the assignment of personnel to the states and organizations, within appropriation limits, can be supported, and the PHS inactive reserve corps can be made available for use at the local level.

Medical and Neurological Management of the Patient with Cerebral Vascular Accident

Matthew S. Atkinson, M.D.
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"STROKE" and "CVA" are time-honored terms with the merits of established usage and the connotation of an acute neurological disturbance usually in a middle-aged or elderly person. "Stroke" is a good term as it has meaning for physician and layman alike and carries no pathological overtones. "CVA" or "cerebrovascular accident" seem inappropriately chosen, however, since they are employed by the medical profession and, while implying both localization and vascular etiology, lack the anatomical and pathological precision which are necessary if treatment is to be appropriate and adequate.

Broadly speaking, there are four common mechanisms, by which neurological disease of vascular origin are produced: (1) brain infarction or softening, (2) transient arterial insufficiency, (3) parenchymatous brain hemorrhage, and (4) subarachnoid hemorrhage. Infarction and parenchymatous hemorrhage invariably mean destruction of nervous tissue although the former much more often than not results in survival, while the latter usually means a fatal outcome. With arterial insufficiency and subarachnoid hemorrhage there need be no tissue destruction, hence no persisting functional deficit. Ultimate prognosis remains ominous, however, in the absence of specific treatment.

Brain softening is due to critical deprivation of metabolites, supplied via the bloodstream, the most constantly requisite of these metabolites being oxygen and glucose. Critical deprivation can be brought about by *in situ* thrombosis of an artery; by atherosclerotic luminal narrowing without complete occlusion to the point where blood supply, initially merely inadequate to meet full tissue requirements (transient arterial insufficiency), later becomes inadequate to support tissue existence; and by embolic arterial occlusion. Since treatment of these several modes of pathogenesis may require different measures, it is important for the physician to classify correctly each case prior to planning of therapy.

Self-evidently, arterial softening and insufficiency occur in relation to territories of arterial supply. Yet, the extent of involvement in any given case is a highly complex matter depending as it does upon individual variations in configuration of the circle of Willis, the state of vessels at a distance from the site of occlusion, oxygen carrying capacity of the arterial circulation, and blood sugar level, to mention only a few of the factors.

Certain points, nevertheless, merit attention. It has become increasingly clear that arterial occlusion or extreme stenosis outside the cranial cavity (that is, in internal carotid or vertebral arteries) is the major factor operative in producing a large number of softenings and insufficiency syndromes. Where occlusion or severe narrowing can be shown by angiography to have occurred in the neck, vascular surgery to restore adequate blood flow may become a primary consideration of treatment.

Interference with internal carotid circulation will produce its effects above the tentorium, spottily or in devastating fashion, in territory supplied by anterior and/or middle cerebral arteries. Practically, this means in cortex and subjacent white matter of frontal and parietal lobes, superior and convex surfaces of temporal lobe with subjacent white matter, insula, basal ganglia, and/or internal capsule. Obstruction to a vertebral artery may produce effects below the tentorium in brainstem and/or cerebellum, or when conditions are right, above the tentorium in occipital

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lobe, inferior and mesial portions of temporal lobe, or thalamus—portions fed by the posterior cerebral artery which usually derives its main source of supply via the vertebral-basilar circulation.

So as to avoid misconceptions it should be pointed out that the majority of softenings and insufficiency syndromes derive from pathology in vessels which are not surgically accessible, that is, cranial portions of internal carotid and vertebral arteries, basilar artery, anterior cerebral, middle cerebral or posterior cerebral artery, or a branch of one of these several vessels.

Parenchymatous brain hemorrhage is a condition which in most cases is associated with hypertensive vascular disease. This does not mean that the patient when first seen need be hypertensive because his blood pressure may have dropped as a result of his brain insult. Parenchymatous hemorrhage occurs in a supratentorial location about five times as often as infratentorially and has predilection in about three-quarters of cases for a locus of origin in either the basal gangliar region or thalamus of one side although encroachment upon internal and external capsules and centrum semiovale is common, along with rupture into the ventricular system and exitus.

When hemorrhage occurs below the tentorium, the primary site of bleeding is about equally divided between pons and midbrain, on the one hand, and cerebellum, on the other; and death usually ensues more quickly than in cerebral hemorrhage. In this connection, with the exceptions of an occasional massive pontine, hemorrhage and the blow-out of a large arterial aneurysm, vascular disease of the brain is not a cause of really sudden death, but rather is nearly always compatible with survival for a minimum of several hours.

Subarachnoid hemorrhage, which may on occasion be associated with bleeding into brain substance or softening consequent upon interference with blood supply to the parenchyma, is most commonly due to rupture of an arterial aneurysm, that is, a dilatation at a weak spot in one of the intracranial arteries ordinarily belonging to or stemming from the circle of Willis and usually located near a point of branching. These aneurysms tend to occur most often about the anterior portions of the circle, and the commonest sites are at the junction of the internal carotid and posterior communicating arteries, on the middle cerebral artery in the sylvian fissure, and on the anterior communicating artery. Subarachnoid hemorrhage statistically carries a mortality figure with each episode in the neighborhood of 40 per cent—serious indeed, but small in comparison with the corresponding figure of well above 90 per cent for primary hemorrhage into the brain.

It should be apparent from what has been said that in the acute stage of a stroke accurate diagnosis is a prerequisite to rational management in view of the variety of treatment measures which are available and the necessity for application of the correct regimen to the particular case. With a complete history (if this is obtainable) and a careful physical examination the physician can establish which pathological mechanism is causing the trouble in about 75 per cent of cases. Lumbar puncture should be helpful in an additional 10 to 15 per cent. The primary importance of lumbar puncture, however, is probably that it enables the physician to rule out infectious processes, such as fulminant meningitis, which can simulate say subarachnoid hemorrhage if the patient is stuporous and an adequate history cannot be elicited. It is generally advisable, and is not contraindicated in acute strokes except when one pupil is large and fixed to light or when there are decerebrate extensor spasms of the extremities. While the pathology of the insult can be diagnosed with a high degree of accuracy on the basis of clinical and lumbar puncture findings, correct anatomical localization and assessment of the extent of the lesion may be difficult or impossible prior to autopsy. Fortunately, this is unimportant in the early management of stroke patients except for those in whom disease of arteries in the neck or the presence of a suitably located aneurysm offer a chance for surgical treatment. In these circumstances arteriography will be an essential source of diagnostic information to the surgeon.

Most strokes which come to the physician's attention in the acute stages are associated with a degree of paralysis of one side of the body or impairment in state of consciousness. In addition to these manifestations, there may at times be disturbances in the patient's ability to feel sensory stimuli on the affected side, to see to the affected side, to speak, or to coordinate his movements. Further, he may complain of dizziness or double vision or inability to swallow to mention only a few of the manifold possibilities of symptomatology dependent upon specific neurological dysfunction.

There are, however, certain more general points which, if properly taken into consideration, will facilitate accurate diagnosis. First, brain softening and insufficiency lumped together are much commoner than parenchymatous and subarachnoid hemorrhage

although autopsy figures would indicate that the respective incidence as the principal cause of death is much more nearly equal. As already pointed out, this simply means that most patients with softening or insufficiency are statistically likely to survive a given episode, most patients with primary hemorrhage into brain substance are statistically likely to die, and patients with subarachnoid hemorrhage have more nearly an even chance as between survival and demise.

Secondly, softening and insufficiency tend to occur at a somewhat older age than either parenchymatous or subarachnoid hemorrhage although as we all know, young people may develop infarcts and very old people have hemorrhages.

The presence at onset of headache, vomiting, convulsions, and coma as well as physical findings of stiff neck, systolic blood pressure above 200, and fixed pupils all favor hemorrhage as opposed to primarily ischemic pathology. Yet a massive infarct in internal carotid or vertebral-basilar territory may produce most of these same phenomena so that a lumbar puncture (in absence of specific contraindications) may add helpful information for making the differential diagnosis between hemorrhage and softening. Other clinical points such as the presence of rheumatic heart disease with auricular fibrillation, indications of a recent or remote myocardial infarction, or an absent carotid pulse in the neck may prove crucial in establishing the diagnosis of infarction in such a patient and may indicate the necessity for energetic treatment measures which would not be called for in hemorrhage.

The differential diagnosis between primary brain hemorrhage and subarachnoid hemorrhage is facilitated by several considerations. Probably most important, the patient with hemorrhage into brain substance usually has a hemiplegia while the patient with uncomplicated subarachnoid bleeding does not. If the episode occurs in a young person without hypertension, the odds are strongly in favor of its being due to subarachnoid hemorrhage. The presence of hypertension, however, does not help much since it has a high incidence in both conditions.

One diagnoses insufficiency syndromes by history or findings of transient, reversible neurological dysfunction—temporary hemipareses, unilateral numbnesses, aphasias, losses of coordination, episodes of vertigo or diplopia, et cetera. Here the differential diagnosis becomes more complex because considerations such as migraine, disseminated sclerosis, subdural hematoma, and brain tumor, which also produce transitory disturbances, must be entertained.

Having recognized the nature of the insult, the physician can institute a program of optimum treatment. In all stroke patients who are stuporous or comatose, it goes without saying that there must be (1) insurance of an adequate airway, (2) treatment of any congestive heart failure or acute pulmonary edema, whether it be primary and thus a factor in etiology or secondary to depression of brainstem centers by the intracranial lesion, (3) provision for adequate nutritional, fluid, and electrolyte balance which is usually best maintained in the absence of vomiting by feeding through a Levine tube, (4) attention to the need for voiding by insertion of a retention catheter, (5) turning of the patient at least once every two hours, (6) treatment of any infection, (7) placing of a flat board at the foot of the patient's bed and a pillow beneath his paralyzed arm if he is hemiplegic.

In cases of softening and insufficiency, maintenance of adequate blood pressure is very important since any sharp drop in pressure will decrease cerebral blood flow and hence increase ischemia. Oxygen by tent will further help to minimize brain damage. In carotid insufficiency and acute occlusions, either thrombotic or embolic, if the pathology can be shown to be in the cervical portion of the artery, vascular surgery may become definite therapy. Anticoagulants can be safely instituted in the absence of hypertension and are clearly indicated in patients with insufficiency of any of the vessels although drug maintenance after the acute episode will require adequate medical supervision. It may be necessary to employ sedation and/or restraint for extreme restlessness, but agents likely to suppress respiration or blood pressure, for example, morphine or heavy doses of thorazine, should be avoided. There is some evidence that after recovery from the acute episode, the patient may benefit from a low-fat diet to minimize future atherogenesis.

In both primary brain hemorrhage and subarachnoid hemorrhage blood pressure should be judiciously lowered if there is serious hypertension. Here the primary therapeutic problem is prevention of bleeding more than tissue hypoxia, and elevated blood pressure fosters further hemorrhage.

Otherwise there is very little, except for the general measures already outlined, to offer to the patient with parenchymatous hemorrhage. Surgical evacuation of the hematoma may have a place in selected cases after there has been a considerable period of survival, but it has not been found to be generally warranted in the early stages when most patients die. Repeated lumbar punctures are contraindicated in primary brain

hemorrhage as they will promote herniation at the tentorial incisure and/or at the foramen magnum.

In subarachnoid hemorrhage, when the patient is conscious, he should be kept sedated with the minimum effective dosage of phenobarbital. An ice bag will help to alleviate headache though small doses of codeine may also be required; and while headache is extremely severe repetition of lumbar puncture may further prove beneficial. The patient should be kept flat on strict bed rest with feeding by attendants for at least the first two weeks after his acute bleeding episode. He may subsequently be elevated in bed to 45° and start to feed himself, but under no circumstances should he be taken off other full bed rest precautions in less than a month and probably not before six weeks.

At some point after the acute episode the patient should have the benefit of carotid angiography. Optimum timing for this procedure remains a matter of controversy, and the physician should exercise his discretion for the individual case in selecting the proper juncture for its performance. If arteriography discloses a surgically accessible aneurysm, the patient should go to operation at what is clinically judged to be the most propitious time. On occasion, when an aneurysm is not directly accessible surgically, ligation of the appropriate internal carotid artery in the neck may be the procedure of choice.

Finally, rehabilitation of the ordinary stroke patient should begin as soon as he is over the immediate consequences of his acute episode. This means that the person with softening should have daily passive movement exercises for his hemiplegic extremities, and be gotten up early. The physician must realize that cerebral damage may mean relatively specific intellectual and emotional damage; and while in truth a stroke victim is the same person that he was before his stroke, in many ways he may not be altogether that same person. These circumstances will require acceptance without over-acceptance by the patient as well as support and understanding from the family.

Implications of Child Diet Habits

It is better to let your child miss an occasional meal than to force it on him, say dietitians at The University of Michigan Medical Center. A happy, healthy child is usually eager for food if his eating procedure is treated in a matter-of-fact fashion.

Children who are too tired from play or excitement may have little desire to eat food. Some parents have the mistaken idea that over-tired children will eat more, but the U-M food specialists urge that children be given time to rest before meals so they can relax and enjoy mealtime.

Otherwise food can become a tool to seek attention. Often an unhappy child receives satisfaction from refusing to eat.

Forcing a child to eat may trigger a prejudice against the particular food served. It is far easier to prevent these food prejudices than to correct them, say the dietitians. The parents' responsibility should be to serve suitable food in a friendly, congenial atmosphere without undue worry about how much the child eats in a single meal.

National Politics and Medical Interests

Again the medical profession and their families, as a profession and as individuals must take an active part in national politics as well as national legislation. Basically and fundamentally the profession is and must be non-partisan. However, there are certain principles which we must favor and others which we must oppose.

One particular type of legislation is now a predominant threat to the private practice of medicine as we have known it. The profession quite generally has been opposed to the Forand-type legislation which proposes to put all beneficiaries of OASI under medical and hospital attention, regardless of need and at a 0.5 per cent increased rate of social security tax. Private insurance companies, as well as Blue Cross-Blue Shield, have established special insurance policies and certificates to take care of these elderly people. Already over 60 per cent of this group carry such insurance. At the present time, the dominant urge is to put them all under social security and even raise the taxable income level from $4,800 a year to what might be necessary to meet the added expenses.

A CAMPAIGN OPPOSING Forand-type programs and offering insurance type has covered tremendous numbers of people but has not allayed the drive which exploded this year into national politics. The medical profession supported the Mills Bill, which was passed by the House and the Senate in August. The bill, which will take care of the elderly persons without adding to the social security program, was signed into law by President Eisenhower on August 31.

Both political parties have held national conventions, have adopted platforms and selected their candidates. The post convention Congress has met, transacted essential business, and from the standpoint of the medical profession, did a very satisfactory job. Medical care for the needy aged is what we desired with help from the federal government regular tax source and not from social security.

The newly-elected Congress if so minded could still adopt social security, and one Presidential candidate has so promised.

Every member should cast his ballot carefully on November 8, 1960.

Congressional Action

The last session of the present Upper House of Congress which met after the convention, had three care-for-the-aged bills to consider.

The first one considered on August 22 was the one introduced by Senator Jacob K. Javits of New York and supported by Mr. Nixon. This Bill was defeated by a party line vote of 28 to 67, with five Republicans voting with the Democrats.

The second Bill considered was the Kennedy-Anderson Bill providing for medical and health care for all on social security benefits regardless of income. This is the Forand-type legislation which the profession has been opposing. This one failed to pass, receiving 44 to 51, a difference of seven votes. If four democrats had changed their ballot, that bill would have passed and we would now be committed to the fundamental principle of compulsory medical care under social security.

The third bill, the Mills Bill, which the profession had accepted, then was passed by a vote of 89 to 2. This bill had modifications. It changes the social security restriction on working from $100 to $150 a month. It allows men to take a voluntary retirement at a slightly reduced rate at age 62, and it provides for health benefits to the needy aged by matching funds and aid from the federal government, *not* social security. Also the provision of putting self-employed doctors under social security was eliminated.

We do not dare relax our caution, however, because Senator Kennedy has announced he will go to the people and put the social security program across next January.

Carry On

In casting our ballots, it is imperative that we as a profession know what the outcome will be. We must select candidates who will carry out our own wishes on this question of medical care, not only for the aged but for others. The care for the aged is the popular feature now. It is the opening wedge to general medical care, *universal compulsory national health insurance.*

The Democratic platform very definitely adopts the social security system as the means through which "adequate medical care and the opportunity to achieve and enjoy good health is one of the eight rights for all Americans!" Their candidate, Senator Kennedy, was also the author of a Forand-type bill introduced in Congress.

The Republican party platform for older persons develops a contributory system for meeting medical costs, allows a choice of buying added health insurance and does not place it under social security. It proposes to liberalize social security so that older persons may still continue in productive work, and give the states more leeway in deciding how to use federal relief. Vice-President Nixon, in his acceptance speech, emphasized that medical care for the aged must not come under social security.

Both of these programs offering services and care for the elderly person have occupied great public attention in this present campaign year. This particular section of medical care could be the opening wedge to establish a complete system of socialized medicine.

The last resort of the profession now is the election in November. Each MSMS member and his people should know the implications before he casts his ballot. Each member and his family should not fail to vote.

That lost ballot could be the one to lose our birthright.

Campaign for Freedom

The officers of the Michigan State Medical Society became conscious of the tremendous implication of the political actions growing out of help for the aged, and the threat to change the whole complexion of the practice of medicine, and have established a Campaign for Freedom.

Every member of the Society was contacted personally, alerted to the threat and the conditions prevailing in Washington and elsewhere and was asked to go to work actively in preparing a counter offensive to preserve our freedom. Great numbers of letters and communications went to Washington and undoubtedly had some effect on the legislative action, even though it did not change the vote of the two Michigan Senators.

The action of the Congress has not solved this problem. Everybody has been told that efforts will be renewed in January to include the medical care of the aged—all of them—under social security, with necessary increases of costs and tax rate. The organization which we have developed for the Campaign For Freedom must continue alert. A thoroughly determined, fairly massive group of people can work miracles in the way of public opinion and public reaction.

Hypophysectomy and Retinopathy

With its increasing incidence, diabetic retinopathy has not only become a major problem in diabetic management but also is becoming the greatest single cause of blindness. The etiology of this condition is not known.

Since many severe diabetics live with their disease for many years without ocular complications, it seems likely that diabetes plus some unknown factor favors the development of retinopathy. Once it appears, retinopathy usually becomes progressively worse and may lead to total blindness. Yet the process has on occasion become arrested and in some few cases hemorrhages and exudates have completely disappeared.

This grim prognosis has led to a trial of a great variety of therapeutic measures. Poulsen's report, in 1953, of the disappearance of diabetic retinopathy in postpartum Simmonds Disease aroused an interest in hypophysectomy as a therapeutic measure. At a recent meeting, Pearson reported arrest of the progress of diabetic retinopathy in seven of fourteen cases. The details of these cases have not been published. Other authorities, although noting a lessening of the severity of diabetes as measured by insulin dosage, have been in essential agreement that there can be no assurance that retinopathy can be benefited by hypophysectomy.

At the present stage of our knowledge, reliance must be placed on rigid diabetic control as a prophylactic and early therapeutic measure. Retinitis proliferans has resisted all forms of treatment.

W. L. Lowrie, M.D.

Physicians as Detectives of Diabetes

Too often treatment of diabetes is started months after symptoms have been first noted. Effective diabetic control could be enhanced by reducing the length of this untreated period. Frequently diabetes may be kept in a less severe form. The findings of postprandial glycosuria and hyperglycemia will detect such a case even before symptoms develop.

The purpose of "Diabetes Week" is to make the physicians and the general public aware of the necessity for regular urine examinations to detect such cases in an early stage. Mass urine examinations such as the classical survey made in Oxford, Massachusetts can be expected to yield almost one new case per hundred examined, or if applied to the entire country more than a million in the total population.

With new qualitative tests, a physician could with very little expense of time and money survey annually all of his patients for postprandial glycosuria. Special attention should be given to relatives of diabetics where a higher incidence of positive tests will be found. The physician alone has access to this selected group.

The detection of diabetes should be accepted by each physician as his responsibility before the insurance company, employer, or selective service makes the diagnosis, often in later stage of the disease.

William L. Lowrie, M.D.

Oral Hypoglycemic Agents

For decades, attempts have been made to control diabetes mellitus with an oral agent. Most have failed. However, since 1955, two of the sulfonylureas (tolbutamide and chlorpropamide) and phenethylbiguanide (DBI) have demonstrated reasonable safety and effectiveness. As a result, they have been widely, and perhaps overenthusiastically, used for the treatment of diabetes.

It is timely to review this mode of treatment.

The availability of these agents have made them popular with both patients and doctors. They afford an easy way out in the management of some diabetics. The patient can steadfastly refuse insulin and the doctor may dispose of the matter by prescribing the pills. In the writer's experience the use of these agents has been primarily on the demand of the patient.

Diet, adequate in all its constituents, remains the keystone of treatment for all diabetics. This particularly applies to those receiving the oral agents.

The pills are *not* a substitute for the diet.

The weight of the obese should be reduced. The failure of the patient to fully cooperate frequently frustrates this therapy. Too often inadequate instruction in the diet and a failure to appreciate the objective of treatment is the reason. About half of all diabetics can be controlled by diet alone.

The oral agents *are* a substitute for insulin. An ideal substitute should mimic the master in all respects. The oral agents fall short in this respect. All three require the presence of some endogenous insulin to be effective. Ablation of the pancreas renders these drugs impotent. Current hypotheses of these agents include the alteration of certain enzyme systems allowing suboptimal quantities of endogenous insulin to be effective (DBI), and the stimulation of partially functioning beta cells to release endogenous insulin (sulfonylureas). The important problem of ultimate complete exhaustion of these beta cells through chronic stimulation is still unanswered. Some have attributed secondary failures of sulfonylureas to this exhaustion.

Certain criteria have been established for the use of oral hypoglycemic agents: (1) The patient should have short duration diabetes. (2) Ideally, he should be over 50 years of age (maturity-type diabetes). (3) He should require less than 30 units of insulin daily. (4) He should be cooperative about his diet.

Since these agents do not mimic insulin, they have no place in: (1) The treatment of diabetic ketosis or coma, (2) juvenile diabetes, (3) pregnancy and diabetes, (4) the presence of complications as infection (even the common cold), surgery or neoplasm.

Therefore, the oral drugs offer an advantage to only a small number of diabetics; chiefly, the cooperative adult of normal weight with a recent onset of uncomplicated diabetes. Occasionally, one of the oral agents will simplify the daily routine of the diabetic who is blind or physically handicapped. Unfortunately, many blind diabetics are unresponsive to the oral agents.

The persistently obese individual needs extra help when dietotherapy alone has failed. The oral drugs can be helpful here. All diabetics on oral agents should be familiar with the use of insulin in the event of a complication.

The effectiveness of the oral agents (sulfonylureas) has been variously reported as high as 80 per cent. This, it seems, is contingent on the rigidity of criteria for control of diabetes. In the writer's experience, about 40 per cent of consecutive cases fulfilling the above criteria for use were successfully controlled with these agents. With success uncertain, physicians must be critical in their use of these agents.

The oral agents are *not* oral insulin. At present, there is no good substitute for insulin and proper diet in the treatment of diabetes. The mere lowering of the blood sugar or clearing the urine of glucose is not the sole goal in the treatment of diabetes. When insulin is indicated, the patient should not be allowed to dictate his choice of treatment, overruling the better judgment of the physician.

The oral hypoglycemics are interesting compounds and cannot be ignored, but their use is limited and must be highly selective. The unknown effect of prolonged usage of these agents must be recognized.

GEORGE C. THOSTESON, M.D.

"Security"

Let us consider the meaning of the word "Security."

When an impartial person hears two people in an argument, he frequently finds that the real difference or misunderstanding is the misinterpretation of the meaning of words.

Semasiology is the study of the meaning of words. Referring to the dictionary the word semantic is defined as pertaining to signification or meaning.

Again referring to the dictionary, security is defined as "the state of being secure." Secure is defined as free from care, safe, hence careless or over-confident, or as a person safe, not liable to become displaced, et cetera. Also, in safe custody as "In iron walls they deem'd me not secure"* or again, to seize and confine as a prisoner as "They formed a conspiracy to seize the ship and secure me."†

There is great difficulty in convincing people that security is not good for them by quoting the cost in tax dollars. This is so because, the person who is talking security points out that someone else is taxed, not the voter.

The use of the word security has become the popular and successful method of politicians to gain office by promising all sorts of Utopian states. The statement has been made that in Sweden, each election has been won by the person promising the most security.

Would it not be good politics and honest policy to try to educate the public as to the real meaning of "security?" That each time more security is gained, more freedom is lost?

The public has been taught that the word security has the opposite meaning of sin. It is universally popular to be against sin and for security. Is there some way in which we can change the popular conception of the word security to its true significance of evil and loss of freedom?

Many people who have been against socialization, as we in America view socialism, have been lured into the acceptance of socialization by the combination of the two words social and security. Again a misunderstanding of the true meaning of security.

We, as physicians, are particularly aware of the need for proper dosage. No one of us wants to eliminate all social security as it was originally proposed any more than we want to eliminate all aspirin. Too large doses of either can be dangerous. Let us try to teach everyone that security in the proper dosage has its place in the treatment of our social ills. Too much in the wrong place is poison and kills freedom.

CLAYTON K. STROUP, M.D.

*Shakespeare's Henry VI 1.

†Swift's Gulliver's Travels.

"In order that man may be persuaded to put forth the intense effort required to change chaos into order, he *must* feel that he has the necessary stature for the assignment, at least the potentialities. . . . It may appear absurd to philosophers, but in our age of specialization it is not only man's concept of matter which must come from science, but also man's concept of himself. . . . At the stage of specialization of our knowledge, to determine what is specifically human in man requires a veritable cracking of the concept of man. This cracking, in its turn, requires a concentrated effort of specialists; as much as was required for the atomic bomb. . . . If the concept is cracked, the release of spiritual energy will be voluminous enough to make physical nuclear energy behave. It might be powerful enough to light the lamps of peace and keep them burning."
—ANA MARIA O'NEILL.

Detroit Surgical Association

Abstracts of Papers

(The Journal will present summaries of the papers given at the Detroit Surgical Association's monthly meetings during the past year — with several summaries appearing in each of the fall issues.)

EXPERIENCE WITH ILEO-RECTAL ANASTOMOSIS IN ULCERATIVE COLITIS

James Barron, M.D., Laurence S. Fallis, M.D. and Eduardo Camacho, M.D.

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The operation of total colectomy in the surgical treatment of ulcerative colitis has received general acceptance by surgeons but many patients are loathe to accept a procedure that involves the formation of a permanent artificial anus in spite of the newer ileostomy technics and the development of dependable appliances. The reluctance is too often shared by their medical advisers and in the case of children by parents and guardians. As a result of this attitude too many patients are submitted to operation only as a last resort.

The generally unsatisfactory result of segmental resection, analileostomy, et cetera, has delayed development of techniques to preserve the sphincteric apparatus until interest was again stimulated by Abel and Aylett in 1956. Their preliminary and subsequent reports indicate the apparently good results of ileorectal anastomosis in a relatively large series of patients. This encouraging report led us to explore the possibilities of this procedure beginning in 1957.

The results of our experience with ileo-rectostomy in twenty-five patients is presented. Selection of patients, emphasizing indications and contra-indications, is discussed. Special attention is directed to the type of anastomosis employed in these cases and reference is made to experimental studies in this field.

THE INCIDENCE AND DISTRIBUTION OF ADENOMATOUS POLYPS OF THE COLON AND RECTUM BASED ON 1000 AUTOPSY EXAMINATIONS

T. C. Arminski, M.D.

One thousand colons and 117 rectums undergoing autopsy were carefully examined for polyps. The location, size and gross characteristics of all polyps were tabulated, and microscopic sections were made of all grossly recognizable lesions.

Approximately 50 per cent of all specimens showed the presence of adenomatous polyps. The incidence after the seventh decade was three times as great as during the third and fourth decades. In the colon, approximately half of the polyps were on each side respectively. Including the rectum, approximately one-third of the polyps were in the rectum and one-third each on the right and left side of the colon. Based on the distribution found, about 40 per cent of the polyps would have been visible with a 25 cm. sigmoidoscope. Sixteen per cent of the colons had polyps over .5 cm. in diameter, and 7.1 per cent had polyps over 1 cm. in size. Both the total incidence of polyps and the size increased in the older age group. About half of the cases with polyps had single ones, and the other half multiple ones. The single polyps were equally distributed on each side of the colon. The multiple polyps were all situated on the right side in about 25 per cent of the colons; nineteen per cent on the left side and on both sides in 56.5 per cent.

EVALUATION OF BILLROTH I OPERATION WITH VAGOTOMY FOR TREATMENT OF DUODENAL ULCER

Robert Reynolds, M.D., and Roland P. Reynolds, M.D.

Because of the recent diversification in the surgical management of duodenal ulcer, it is possible to select the operation best suited for each patient.

If feasible, vagotomy is done in all our ulcer operations, and this may be accompanied by a fifty per cent resection or gastrojejunostomy. From 1952 through 1957, 237 operations were done for duodenal ulcer. Sixty-two of these operations were Billroth I, 50 per cent were vagotomies. The technique is discussed in detail. The ulcer is not necessarily removed and a gastroduodenostomy is done only if a safe anastomosis can be made. The results of this procedure have been very good, with only four per cent of patients reporting dissatisfaction. The combination of doing a more limited resection and vagotomy provides a more normal physiological approach to the ulcer problem. The immediate postoperative complications, such as nutritional deficiencies, dumping, and marginal ulcer, appear to be definitely decreased.

We recommend the Billroth I, 50 per cent resection and vagotomy as the operation of choice in those patients in whom it can be performed safely.

SOME UNUSUAL FORMS OF FAT NECROSIS IN SURGICAL PATIENTS

Paul L. Wolf, M.D.
Department of Pathology, Wayne State University Affiliated Hospitals

Extra-Abdominal Subcutaneous Fat Necrosis.—Necrosis of abdominal fat occurs in both interstitial pancreatitis and hemorrhagic necrosis of the pancreas. It is generally agreed that the factor common to necrosis of abdominal fat is the release of activated enzymes into the abdominal tissues. Pancreatic lipase is the important enzyme in this respect. It is postulated that rupture of the finer ducts and acini is essential for the release of enzymes. Although ligation or obstruction of the pancreatic duct does not cause pancreatic necrosis, necrosis may occur if, in addition, the gland is stimulated to secrete actively.

Fat necrosis characteristically occurs in small patches. It may be seen in the pancreas as a concomitant of hemorrhagic necrosis. It may also occur as a result of traumatic injuries of the pancreas. Fat necrosis may be found in the omentum, mesentery, pancreatic fat and retroperitoneal fat tissue. In fat necrosis fatty acids and glycerol are liberated, and while glycerol is apparently absorbed, the fatty acids combine with calcium to form soaps.

Extra-abdominal fat necrosis may be due to lipase transmitted through lymphatics throughout the body. This is a rare entity. In the few cases recorded in the last few years, these lesions have been associated with acute pancreatitis, carcinoma of the pancreas and portal cirrhosis associated with pancreatitis.

A case of carcinoma of the pancreas and associated acute pancreatitis with extra-abdominal subcutaneous fat necrosis was recently observed at Detroit Memorial Hospital and is herewith reported.

Sclerema Neonatorum.—A case of nodular sclerema neonatorum which is subcutaneous fat necrosis of the newborn was recently observed at Receiving Hospital. Two types of sclerema neonatorum are nodular and generalized. The generalized form produces hard, waxlike skin. Death occurs within a week. However, the nodular form is self limited and the disease spontaneously disappears. The nodular masses are symmetrical and bilateral. Surgery should not be employed.

In nodular sclerema neonatorum, one observes deep-seated indurated areas in the subcutaneous fat. Histologic findings include degeneration, necrosis and crystallization of the subcutaneous fat together with an inflammatory reaction and fibrosis. It is possible that the disease is due to a delay in the maturation of the fat producing low oleic acid content which disposes to solidification.

THE COMBINED TREATMENT OF CARCINOMA OF THE CERVIX WITH FULL IRRADIATION THERAPY FOLLOWED BY RADICAL PELVIC SURGERY. Second Progress Report on a Series Now Numbering Ninety-four Cases.

Robert R. Turner, M.D.
Department of Obstetrics and Gynecology, Wayne State University College of Medicine, and Department of Gynecology, Detroit Receiving Hospital.

Our study of the combined treatment for carcinoma of the cervix commenced in 1949 and is being made in an effort to evaluate its effectiveness as a treatment method and to ascertain its place, if any, in the over-all treatment of the disease.

A series of ninety-four cases of carcinoma of the cervix treated first with full irradiation therapy, followed in from four to fifty-two weeks after its completion with radical Wertheim operation, is presented.

The operative mortality in the series is zero. The over-all vaginal fistuli rate is 14 per cent. The incidence of ureterovaginal fistula is 5 per cent; of vesicovaginal fistula, 2 per cent; of rectovaginal fistula 4 per cent; and of combined vesicovaginal and rectovaginal fistulae, 4 per cent. Fistulate closed spontaneously in four women and were cured in four women by operation. Closure did not occur in the remaining six women, and four of them have died, three from recurrence of their malignancy.

Of the ninety-four patients, fourteen died; eight from recurrence of disease, and six of other diseases but with no evidence of recurrence of cancer at the time of death.

Residual carcinoma was found in the surgical specimens from twenty-six of the ninety-four women. Six of these have died, five from recurrence, giving a corrected survival rate of 80 per cent in the "residual group."

Sixty-eight women had no detectable residual cancer in their specimens. Three of these died from recurrence of their disease, thus giving a corrected survival rate of 95 per cent for the "non-residual group."

Carcinoma was found in pelvic lymph nodes in seven of the ninety-four patients, an incidence of 8 per cent. This is one third the incidence usually found in treatment by surgery alone. We conclude that adequate deep therapy eradicates pelvic nodal cancer in two thirds of the patients.

Our fistula rate of 14 per cent is still too high, but by decreasing radium dosage and modifying surgical technique, we are confident we shall be able to reduce it to a more respectable level.

It seems at this time that combined therapy may prove an adequate method in treatment of Stage I, II, and early Stage III carcinoma of the cervix, but final evaluation must wait further follow-up observations.

New Medical School Opens; Seven Others Planned

Seven new medical schools are in the planning stages, and one is ready to accept its first freshman class this September.

Accepting its first freshman class of 50 students this September is the just-completed University of Kentucky Medical Center in Lexington.

The Texas legislature has authorized a new medical school in San Antonio, though funds have not been appropriated. In California, New Mexico and the Twin City area in Minnesota, preliminary studies of medical needs have been completed. Surveys are beginning in Idaho, Arizona and on New York's Long Island.

New Personnel Begin AMA Duties

The American Medical Association has made several recent changes in personnel in its Division of Scientific Activities.

Foremost of these was the naming of John B. Youmans, M.D., as director of the division which was created in 1959 to coordinate all scientific activities of the association. He succeeds the late Edward L. Turner, M.D. Dr. Youmans was technical director of research for the U. S. Army Medical Research and Development Command, Office of the Surgeon General, in Washington.

Ralph Adams, M.D., who has already taken up his duties as assistant secretary of the A.M.A. Council on Medical Education and Hospitals, is serving in the area of graduate medicine education.

Glen R. Leymaster, M.D., has taken over duties as an associate secretary of the A.M.A. Council on Medical Education and Hospitals, with responsibilities in the field of medical school activities.

A. N. Taylor, Ph.D., formerly associate dean of the Medical School at the University of Oklahoma, at Norman, is the assistant secretary of the Council. He will serve as secretary of the A.M.A. Committee to Study the Relationships of Medicine with Allied Health Professions and Services.

Harold Watson, M.D., another recent addition to the Council on Medical Education and Hospitals, will serve as a full-time staff member to review intern and residency programs.

Ogden Johnson, Ph.D., took over his duties recently as assistant secretary of the A.M.A. Council on Foods and Nutrition. He will assist the council in its program of developing statements regarding foods and nutrition.

John Lewis, Ph.D., recently became assistant secretary of the A.M.A. Council on Drugs. He will evaluate and prepare data on various drugs for New and Non-Official Drugs, which is published annually by the council.

Joseph Jerome, Ph.D., is the new assistant to the secretary of the Council on Drugs and as acting secretary of the Committee on Cosmetics. His work deals with problems involving pharmacological products and organic chemistry.

Drug Firms Spend $197 Million On Research in '59 for New High

The prescription drug industry spent $197 million on research and development last year in the biggest privately financed assault on ill health in history.

The expenditure—16 per cent higher than in 1958—amounted to 7.8 per cent of the companies' pharmaceutical sales of more than $2.5 billion.

Austin Smith, M.D., president of the nationwide trade association of 140 ethical drug firms, hailed the expenditure as "a typically American example of the force of private enterprise at work for the betterment of humanity."

Dr. Smith said their third annual survey of research activities of the industry also disclosed, among other facts, that over $18 million of the total was spent outside of pharmaceutical house laboratories in the form of grants and contracts to medical schools, hospitals, research institutes and other institutions. He reported also that an estimated 100,200 chemicals, compounds and other substances were prepared, obtained and biologically tested by the industry in 1959 in its search for new and more specific medicinals.

Call AMA Conference on Disaster Care

A program by the Division of Health Mobilization of the U. S. Public Health Service will be featured at the County Medical Societies Conference on Disaster Medical Care, sponsored by the AMA Council on National Security, November 4-6, 1960 at the Palmer House in Chicago.

State medical society representatives, state civil defense authorities and other professional health and medical personnel will be briefed on the important programs being developed by the new PHS Division.

The nation's medical and health preparedness effort is being given new impetus as a result of the Office of Civil and Defense Mobilization delegation of authority to the Public Health Service to provide maximum assistance to community preparation in the health aspects of national defense.

More than Half of '60 Polio Victims Were Unvaccinated, Report Shows

More than half of those who contracted paralytic poliomyelitis this year had received no vaccination status reported by Surgeon General Leroy E. Burney.

Of the 310 paralytic cases this year on which the U. S. Public Health Service has received a vaccination report, 166 were unvaccinated, Dr. Burney said. The ratio probably applies to all of the 610 paralytic cases reported in the first seven months this year, he added.

About 14 per cent of all persons under 20 years of age have not received the vaccine; 45 per cent of those 20 to 40 years of age are unvaccinated as well as 89 per cent of those over 40.

Only three states have reported marked increases this year over 1959. Rhode Island reported 59 paralytic cases as of July 30, as against two last year. California listed 152 cases, as against 120 last year. South Carolina reported 29 cases, as against 11 in 1959.

Explain Details of Health Care Program Approved for Aged

The federal government is offering states liberal matching funds to provide health care for needy and near-needy persons 65 years of age and older.

The program, which Congress approved in the bob-tailed post-convention session, is supported by the American Medical Association and allied health groups.

Congressional approval of the federal-state program marked a victory for the medical profession and a defeat for Democratic Presidential Nominee John F. Kennedy, the AFL-CIO and other advocates of the Social Security approach to the problem.

After voting down the Kennedy plan and a separate proposal of the Eisenhower Administration, the Senate passed a modified version of a House-approved program. The modifications, sponsored by Sen. Robert S. Kerr (D., Okla.) and others, provided for increases in the percentage of federal matching funds and for administrative changes designed to facilitate state participation.

Start of the program was authorized for October 1, for those states where new state legislation is not required.

Administration of the program rests entirely with the states, subject to Federal approval in broad terms. It is up to each individual state whether it participates. Eligibility standards for beneficiaries and what health care services are provided are matters for the states to decide.

If a state so chooses, it can take care of all the health needs of an eligible beneficiary. The law authorized in patient hospital services; skilled nursing home services; physicians' services; outpatient or clinic services; home care services; private duty nursing services; physical therapy and related services; dental services; laboratory and x-ray services; prescribed drugs, eyeglasses, dentures and prosthetic de-

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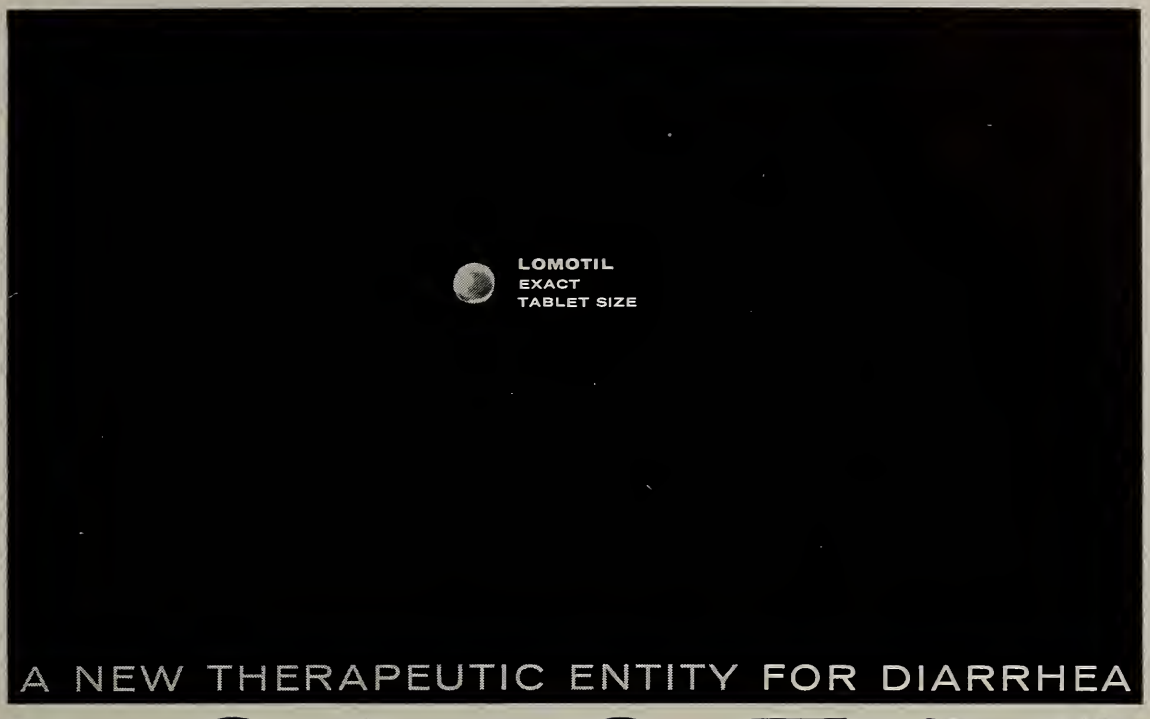

A NEW THERAPEUTIC ENTITY FOR DIARRHEA

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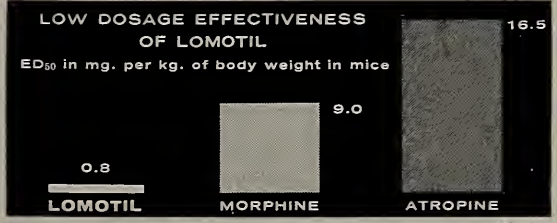
SELECTIVELY LOWERS PROPULSIVE MOTILITY

LOMOTIL represents a major advance over the opium derivatives in controlling the propulsive hypermotility occurring in diarrhea.

Precise quantitative pharmacologic studies demonstrate that Lomotil controls intestinal propulsion in approximately 1/11 the dosage of morphine and 1/20 the dosage of atropine and that therapeutic doses of Lomotil produce few or none of the diffuse untoward effects of these agents.

Clinical experience in 1,314 patients amply supports these findings. Even in such a severe test of antidiarrheal effectiveness as the colonic hyperactivity in patients with colectomy, Lomotil is effective in significantly slowing the fecal stream.

Whenever a paregoric-like action is indicated, Lomotil now offers positive antidiarrheal control . . . with safety and greater convenience. In addition, as a nonrefillable prescription product, Lomotil offers the physician full control of his patients' medication.



EFFICACY AND SAFETY of Lomotil are indicated by its low median effective dose. As measured by inhibition of charcoal propulsion in mice, Lomotil was effective in about 1/11 the dosage of morphine hydrochloride and in about 1/20 the dosage of atropine sulfate.

PRECAUTION: While it is necessary to classify Lomotil as a narcotic, no instance of addiction has been encountered in patients taking therapeutic doses. The abuse liability of Lomotil is comparable with that of codeine. Patients have taken therapeutic doses of Lomotil daily for as long as 300 days without showing withdrawal symptoms, even when challenged with nalorphine.

Recommended dosages should not be exceeded.

DOSAGE: The recommended initial dosage for adults is two tablets (5 mg.) three or four times daily, reduced to meet the requirements of each patient as soon as the diarrhea is controlled. Maintenance dosage may be as low as two tablets daily. Lomotil, brand of diphenoxylate hydrochloride with atropine sulfate, is supplied as unscored, uncoated white tablets of 2.5 mg., each containing 0.025 mg. (1/2400 gr.) of atropine sulfate to discourage deliberate overdosage.

Subject to Federal Narcotic Law.

Descriptive literature and directions for use available in Physicians' New Product Brochure No. 81 from

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P. O. Box 5110, Chicago 80, Illinois
Research in the Service of Medicine

(Continued from Page 1566)

vices; diagnostic screening and preventive services, and any other medical care or remedial care recognized under state law.

For medical expenses of persons on old age assistance rolls, the federal government will contribute 50 to 80 per cent—with states with low per capita income getting the larger percentages of federal aid—of an amount equal to $12 multiplied by the number of old age assistance recipients in a particular state.

The matching formula will be the same for financing the health care of the near-needy but there is no $12 limitation figure.

Health, Education and Welfare officials estimated first-year costs of the program at $262 million—$202 million federal and $60 million state. Annual costs are estimated to rise by the end of the fifth year to $340 million federal and $180 million state. However, these estimates admittedly are no more than educated guesstimates because so much depends upon state action.

It was estimated that maximum participation and Michigan state contribution of $1.8 million would bring $6.2 million in federal matching funds in the first year of the program.

The medical-care-for-the-aged legislation was included in an omnibus measure titled Social Security Amendments of 1960. It also eliminated the age 50 requirement for eligibility for disability insurance benefits.

The Senate knocked out of the House bill a provision that would have brought physicians under Social Security coverage.

On other legislation of interest to the medical profession:

Congress passed bills authorizing expenditure of $10 million of counter-part funds abroad to stimulate international research; authorizing up to 15 per cent of National Institutes of Health research grants for non-governmental medical research; directing a broad study of air pollution problems; requiring informative labeling on packages of hazardous substances for household use, and giving the government power to establish a tolerance on the amount of color additives that may be used in various products.

The Senate failed to act upon House-approved legislation that would have given physicians and other self-employed persons a tax break on income put into private pension plans.

Survey Shows Ulcers More Common

More than 2.4 million Americans have ulcers, and nearly three times as many men have ulcers as do women, the Health Insurance Institute reports. Some 1,771,000 men have some form of peptic ulcer, including gastric, duodenal, and gastrojejunal ulcers, compared to 669,000 women, the Institute said.

Based on data from the U. S. National Health Survey, the Institute found that ulcers are four times as common among Americans now as they were in the 1930's.

A National Health Survey in 1935-36 showed that less than three out of every 1,000 persons in the population had an ulcer. The latest survey, covering the 1957-59 period, disclosed that 14 out of every 1,000 persons in the civilian population were so afflicted. However, this seeming quadrupling of the ulcer rate has been attributed in part to more accurate methods of diagnosis through wider use of x-ray equipment.

Other statistics, said the Institute, strengthen the impression that the prevalence rate of ulcers has quadrupled. Over a 20-year span, the rate of hospital admissions for ulcers has grown from 0.4 admissions per 1,000 persons per year to 1.7 admissions.

Three out of ten of these admissions had their ulcers treated surgically, according to the Institute.

Wanted: Books and Journals

How many times have you looked over your accumulation of not new medical or accumulated medical journals, and wished to clean the shelves? New editions have been secured, magazines have accumulated and become outdated, but your library shelves are becoming too crowded.

At long last, the project to supply much needed books and periodicals to underdeveloped libraries and medical organizations has been "test" run. The enthusiastic interest and medical associations in North Pacific and Asian countries exhibited in receiving medical books and periodicals and their willingness to place these in the libraries of their medical schools, hospitals and associations, under a "need-potential use" priority system and the co-operation of the Asia Foundation and Friends of Viet Nam in providing shipping costs, made it possible to transmit books and periodicals on a pilot-test basis early this year.

Adopt a preventive approach to the inevitable ultimatum. Prepare, or have your help-mate prepare a list of the books and periodicals you wish to share and mail this list to World Medical Association, 10 Columbus Circle, New York 19.

Shelters in Sweden

New apartment houses in Sweden provide underground protection for the occupants. The laws of Sweden require it. Often developers co-operate to blast out rock and equip one large centrally-located subterranean shelter for several apartment buildings. In one town, school, civil defense and other government authorities co-operate in planning and building a large shelter for most of the town's inhabitants.

Many Doctors Placed By Health Council

Many communities are enjoying the services of doctors of medicine this fall through the activities of the Michigan Health Council M.D. Placement Service.

There has been a general trend over the years to make the most of the placements during July and August when M.D.s finish their internships or postgraduate training programs.

The following placements were made by the Michigan Health Council during the busy summer months: C. A. Johnson, M.D., in New Era; Merle Bennett Haney, M.D., Almont; Lester Medford, M.D., Wakefield; William H. Schock, M.D., Saugatuck-Douglas; Gordon Willoughby, M.D., Alma (Locum Tenens); Charles E. Morrill, M.D., Grant; Kenneth A. Kleyn, M.D., Cheboygan; Clarence J. Kluck, M.D., Detroit; Tomas Carbonell, M.D., Centreville; David A. Wild, M.D., Manistee; John G. Lundeen, M.D., Lake Odessa; Robert E. Drom, M.D., Marquette; Warren E. Bantrager, M.D., Mio; and Juozas Sidagis, M.D., Sebewaing.

Those assisted by Michigan Health Council: William G. O'Driscoll, M.D., Grand Rapids; Robert T. Hartman, M.D., Milan; John W. Hansen, M.D., Northville (State Hospital); Tad Lonergan, M.D., Saginaw; Almon L. Schut, M.D., Kalamazoo; David Hills, M.D., St. Joseph; James Alan Gray, M.D., Battle Creek; Robert B. Marshall, M.D., Saginaw; and Leonard A. Ginnebaugh, M.D., South Haven.

Schedule Trauma Symposium

The Eighth Annual Symposium on Trauma, presented by the Wayne State University and the Detroit Academy for the Surgery of Trauma, will be held Wednesday, December 7, at the Wayne County Medical Society Building.

This year's program will consist of a series of workshop discussions of clinical problems in the morning from 9:30 to 12:00. Luncheon will be served at noon, to be followed by a series of talks in the afternoon on the surgery of trauma, presented by several leading authorities from throughout the country. The afternoon program will last from 2:00 to 5:00.

Registrations may be sent to Dr. W. W. Glass, Chairman of the Program, Director of Surgery, Wayne County General Hospital, Eloise, Michigan. House officers will be admitted at no charge.

Medical Television Shows

The Michigan Health Council reports that the following topics were covered during the month of September on the weekly Sunday morning program over WJBK-TV in Detroit: Heart Disease, Physical Therapy, Nutrition, and the Michigan State Medical Society Annual Session.

ANCILLARY 1569

Michigan Teen-Agers to Learn About Cigarettes and Cancer

Evidence linking cigarettes and lung cancer will be studied by students in Michigan high schools taking part in a long-range educational program currently being launched nationwide by the American Cancer Society.

Centered around a filmstrip entitled, "To Smoke or Not to Smoke," and a battery of related materials for classroom use, the program is part of a broader effort to stop the skyrocketing increase in lung cancer deaths. To encourage science, biology and health education teachers to make the program a regular part of the curriculum, the Southeastern Michigan Division of the Society is offering each of the 500 schools in that area its own free set of materials, including a second filmstrip presenting the basic story of cancer as a disease and a major health problem.

Plans for initiating the program in Wayne, Oakland and Macomb counties this Fall were announced today by the Society's Southeastern Michigan Division.

Harry M. Nelson, M.D., president of the Society's Southeastern Michigan Division points out, "Present rates suggest that 1,000,000 American children now in our schools will die before age 70 of lung cancer, a disease that is fatal 19 out of 20 times. The poor prospects for detection and cure of lung cancer underscore the need to reduce our exposure to factors known to cause the disease."

The American Cancer Society and many of the nation's leading scientists accept the evidence pointing to cigarettes as an important causative factor in the 950% increase in the death rate for lung cancer since 1930. At least 23 studies in eight countries have shown that lung cancer patients are predominantly cigarette smokers.

Schedule Two CD Courses

Two national courses to train medical and health personnel for emergency services will be held at Battle Creek during the current fiscal year by the U. S. Public Health Service and the Office of Civil and Defense Mobilization.

All courses cover basic civil defense concepts, current information on biological, chemical, and radiological warfare, and community disaster planning.

Tuition and housing are provided without cost to students and approximately one-half the necessary travel expenses can be reimbursed through OCDM student training expense funds. Enrollments are limited to permit proper student-faculty ratios. Applications should be made through State Civil Defense Directors.

The courses are:

Nursing Aspects of Health Mobilization, April 23-28, 1961, by the OCDM staff and Environmental Health Aspects of Health Mobilization, April 23-28, 1961. Courses 2 and 3 held concurrently to permit joint sessions in some subjects.

Michigan Cancer Co-ordinating Committee Elects Dr. Hubly

J. W. Hubly, M.D., Battle Creek, is the new chairman of the Michigan Cancer Co-ordinating Committee. He was elected September 8 in Lansing.

H. J. Vandenberg, M.D., Detroit, was chosen vice-chairman and William J. Burns, Lansing, was re-elected secretary-treasurer. Doctor Hubly had served as vice-chairman.

Ending two years of service as chairman is H. M. Nelson, M.D., Detroit.

Members of the committee, including some newly-appointed representatives, are the following: Doctor Hubly, Doctor Vandenberg, W. A. Hyland, M.D., Grand Rapids, H. M. Pollard, M.D., Ann Arbor, and E. I. Carr, M.D., Lansing, representing MSMS; Charles F. Arnold, Detroit; William Bromme, M.D., Detroit, Michigan Cancer Foundation; John A. Cowan, M.D., Lansing, Michigan Department of Health; Nelson R. Gilbert, Lansing, L. E. Holly, M.D., Muskegon, C. Allen Payne, M.D., Grand Rapids, and Peter Wege, Grand Rapids, Michigan Division of the American Cancer Society; B. E. Luck, D.D.S., Michigan State Dental Association; Doctor Nelson and Mrs. Edward S. Wellock, Southeastern Michigan Division, American Cancer Society, and Ralph Ten Have, M.D., Grand Haven, Michigan Health Officers Association.

Heads Pharmaceutical Association

Ronald V. Robertson, practicing pharmacist of Spokane, Washington, is the new president of the American Pharmaceutical Association. Mr. Robertson assumed the office in August at the Association's 107th annual convention.

In his presidential address, he noted the outstand-

(Continued on Page 1572)

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Triacetyloleandomycin, equivalent to oleandomycin 125 mg. This is the URI antibiotic, clinically effective against certain antibiotic-resistant organisms.

fast decongestion

Triaminic®, 25 mg., three active components stop running noses. Relief starts in minutes, lasts for hours.

well-tolerated analgesia

Calurin®, calcium acetylsalicylate carbamide equivalent to aspirin 300 mg. This is the freely-soluble calcium aspirin that minimizes local irritation, chemical erosion, gastric damage. High, fast blood levels.

TAIN brings quick, symptomatic relief of the common cold (malaise, headache, muscular cramps, aches and pains) especially when susceptible organisms are likely to cause secondary infection. Usual adult dose is 2 Inlay-Tabs, q.i.d. In bottles of 50. ℞ only. Remember, to contain the bacteria-prone cold...TAIN.

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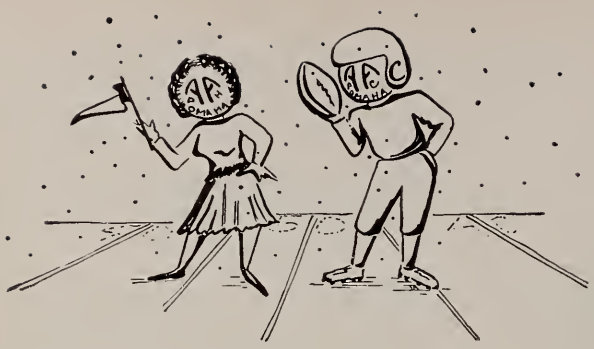

Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

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"Notice the wonderful power of the eye in conveying ideas to the mind from writing. Take the . . . example of the numbers from one to one hundred, written down, and you can run your eye over the list, and be assured that every number is in it, and in about half the time it would require to pronounce the words with the voice; and not only so, but you can in the same short time determine whether every word is spelled correctly, by which it is evident that every separate letter, amounting to 864, has been recognized and reported to the mind within the incredibly short space of twenty seconds, or one-third of a minute."—ABRAHAM LINCOLN.

Heads Pharmaceutical Association

(Continued from Page 1570)

ing progress of community health service in recent years. He said, "It has been a breath-taking experience to witness the search for new methods of controlling disease, the dissemination of information with each laboratory triumph . . . and then to see, first-hand, the joy which has come into homes and families with miraculous swiftness.

AAMA to Meet at Dallas

Eight hundred medical assistants will attend the fourth annual national convention of the American Association of Medical Assistants in Dallas, Texas October 14-16.

MSMS representatives to the meeting will be Glenn E. Millard, M.D., Detroit, and John W. Rice, M.D., Jackson, members of the MSMS Advisory Committee to the Michigan State Medical Assistants Society.

Two major segments of the convention program will deal with current problems and future challenges of medical practice. The morning seminar, October 15, will feature talks on "Waiting Room Atmosphere," "The Hospital, the Doctor and You" and "The Problem of Medical Care Cost in the 60's."

The "Challenge of the 60's" is the theme of the Leadership Seminar, sponsored by Lakeside Laboratories, Inc., scheduled for the afternoon. This seminar will feature lectures on credit and office management plus a round-table discussion of physician-assistant-patient relationships. Participants in the round-table will include two physicians and two medical assistants.

The AAMA, an organization whose aims and goals have been commended by the American Medical Association, has a membership of approximately 9,000 in 29 chapter states.

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

February 28, March 1, 2 and 3, 1961

Palmer House, Chicago

Lectures — *Teaching Demonstrations*

Medical Color Telecasts — *Instructional Courses*

The CHICAGO MEDICAL SOCIETY ANNUAL CLINICAL CONFERENCE should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.

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"gratifying" *relief from stiffness and pain in 106-patient controlled study (as reported in J.A.M.A., April 30, 1960)*

"Particularly gratifying was the drug's [SOMA's] ability to relax muscular spasm, relieve pain, and restore normal movement . . . Its prompt action, ability to provide objective and subjective assistance, and freedom from undesirable effects recommend it for use as a muscle relaxant and analgesic drug of great benefit in the conservative management of the 'low back syndrome'."

Kestler, O.: Conservative Management of "Low Back Syndrome", J.A.M.A. 172: 2039 (April 30) 1960.

FASTER IMPROVEMENT—79% complete or marked improvement in 7 days (Kestler)

EASY TO USE—Usual adult dose is one 350 mg. tablet three times daily and at bedtime.

SUPPLIED: 350 mg., white tablets, bottles of 50.
For pediatric use, 250 mg., orange capsules, bottles of 50.

Literature and samples on request.

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Premature Center Standards

St. Luke's Hospital at Marquette is the first facility in Michigan to receive approval as a premature center under standards recently developed by the Michigan Department of Health.

Even though many of the standards and recommendations for newborn infant care and physical facilities are set forth in the state health department *Rules and Minimum Standards for Hospitals,* special care required for premature babies prompted standards which include such considerations as specialized training of medical and nursing personnel, space allocation, environmental conditions and special equipment.

Seven per cent of Michigan's babies were born prematurely in 1959.

The standards for premature baby care call for special equipment, including incubators, where heat, moisture and oxygen may be supplied and controlled as needed. They also require careful medical supervision and nursing care of a specialized nature, including feeding techniques and protection from infection, to bring such infants through critical periods until they attain sufficient strength to survive and grow normally.

Special graduate training for medical and nursing personnel is provided by the state health department's Division of Maternal and Child Health staff in co-operation with Michigan's medical schools and schools of nursing, and through special grants from the U. S. Children's Bureau training is provided at New York Hospital, Cornell University, and the University of Colorado. In addition to the specialized training of professional personnel, the training program set up by the Child Health Section of the Division of Maternal and Child Health is offering courses for nurses aides on their role in the care of premature infants.

St. Luke's premature nursery has been given approval on a provisional basis having complied with most of the additional requirements for premature centers. Full approval will be granted as soon as additional personnel have completed the specialized courses on premature infant care.

The Michigan standards for premature infant care are among the highest in the nation.

Groups co-operating with the health department in establishing the standards included the Child Welfare Committee of the Michigan State Medical Society, members of the Michigan branch of the American Academy of Pediatrics, private pediatricians, and the Michigan Crippled Children Commission.

The Crippled Children Commission spends some $300,000 annually out of its "afflicted children funds" for the care of premature infants whose parents are not able to pay for the special care provided. Expenditures in 1959 were made for about one of every 17 of the 14,378 infants born prematurely.

In addition to the staff of St. Luke's Hospital, the Michigan State Police must be credited for the successful functioning of the premature center. Because of the widely scattered areas of population and the long distances from many areas to the premature center in the Upper Peninsula, the State Police have agreed to render assistance in transporting infants from distant points to the center at St. Luke's when other safe forms of transportation are not available.

Establishment of the premature center at St. Luke's and development of special standards for the care of prematurely born babies marks another milestone in Michigan's continuous march toward better health care for its children.

National Cancer Institute Referrals

The co-operation of physicians is requested in studies on colon and rectal carcinoma recently initiated at the Clinical Center, National Institutes of Health, Bethesda, Maryland. Encouraging results in the treatment of gastrointestinal carcinoma have been reported using the pyrimidine analogues 5-fluorouracil and 5-fluorodeoxyuridine. However, other reports have raised the question of their effectiveness.

The Chemotherapy Service of the National Cancer Institute is conducting studies of these agents in carcinoma of the colon and rectum in order to better define their place in the treatment of metastic gastrointestinal neoplasm. The side effects of these agents may be considerable so patients must be in good general condition in order to tolerate adequate doses. Also the presence of tumor masses which can be either measured directly or demonstrated on roentgen films is necessary in order to determine the antitumor effect of the drugs in short trial periods.

(Continued on Page 1584)

Blood pressure that goes up with stress often comes down with SERPASIL®

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One reason that many cases of hypertension respond to Serpasil is that many cases are associated with stress. Stress situations produce stimuli which pass through the sympathetic nerves, constricting blood vessels, and increasing heart rate. Hyperactivity of the sympathetic nervous system may elevate blood pressure; if prolonged, this may produce frank hypertension. By blocking the flow of excessive stimuli to the sympathetic nervous system, Serpasil guards against stress-induced vasoconstriction, brings blood pressure down slowly and gently.

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In all grades of hypertension, Serpasil may be used as a background agent. By permitting lower dosage of more potent antihypertensives, Serpasil minimizes the incidence and severity of their side effects.

CIBA
SUMMIT, N. J.

*Coan, J. P., McAlpine, J. C., and Boone, J. A.: J. South Carolina M. A. 51:417 (Dec.) 1955. /2830M8

Complete information available on request.

Pathology Comment

These items are provided by the Michigan Pathological Society

Cystic Fibrosis

The publication of two articles and an editorial on the subject of cystic fibrosis of the pancreas in a recent issue of the *Journal of the American Medical Association* emphasizes the new awareness with which physicians are now regarding this disease.[1] Although unrecognized until 22 years ago, it is now realized that cystic fibrosis causes more mortality among children than rheumatic fever, diabetes, or poliomyelitis.

Defect Inherited

The disease appears to be genetically transmitted as a recessive trait, and there is considerable evidence that homozygotic persons show the full disease picture and heterozygotic persons are either free from the active disease or show one or more manifestations of the disease picture. The incidence of the disease in its complete form is approximately one in 1,000 live births, equally affecting all Caucasoid groups and rare in Negroes.

The term "cystic fibrosis of the pancreas" is, of course, misleading in that the disease affects the respiratory tract, the pancreas, sweat and salivary glands. It has also been referred to as "congenital steatorrhea," "fibrocystic disease of the pancreas," and "mucoviscidosis." The latter name, first applied by Farber, refers specifically to a thick, tenaceous mucus which plugs pancreatic and salivary ducts and the bronchi.[2]

Improved Diagnostic Measure

The increase in the number of patients observed is the result of better methods of diagnosis and prolongation of the life span by effective use of antibiotics. The *markedly elevated sweat chloride*, which is a constant accompaniment of the disease process, is the most important single diagnostic feature.[3] It is of interest that about 20 per cent of relatives of known cases also have elevated sweat chloride as their only abnormal finding. In addition a significant number of relatives have frequent attacks of bronchitis or chronic respiratory involvement.[4]

Diagnostic Criteria

The screening tests for electrolytes are most meaningful when negative. Positive screening tests should always be verified by quantitative methods. Values for *sodium* in sweat above 80 mEq/L are diagnostic in about 98 per cent of cases;[5] *chlorides* above 60 mEq/L have been considered diagnostic also when accompanied by relevant clinical data.[6,7] Determination of *trypsin* may be helpful, and duodenal intubation is still valuable in the cases where there is a classic picture of cystic fibrosis with respiratory and G.I. symptoms and borderline concentrations of sweat sodium and chloride.[5] Chronic pulmonary involvement, usually confirmed by *chest x-ray*, and a *familial history* of the disease are the other major diagnostic criteria.[4]

Etiology—A New Theory

While most investigators of the disease have concentrated on the apparent malfunction of mucus-producing glands, G. B. S. Roberts has postulated that the fundamental cause is an abnormality in humoral transmission of nerve-impulses to secretory glands.[8] Normally when a gland is stimulated, acetylcholine is liberated at the nerve endings. Once liberated, its action is controlled by its break-down by choline esterase.

If the specific choline esterase were diminished in amount, or if the acetylcholine were more resistant than usual to its activity, the acetylcholine released would act for an abnormally long time and cause oversecretion of glands. Roberts postulates that cystic fibrosis is the physiological opposite of myasthenia gravis, which is due to diminished acetylcholine production or increased resistance to its activity.

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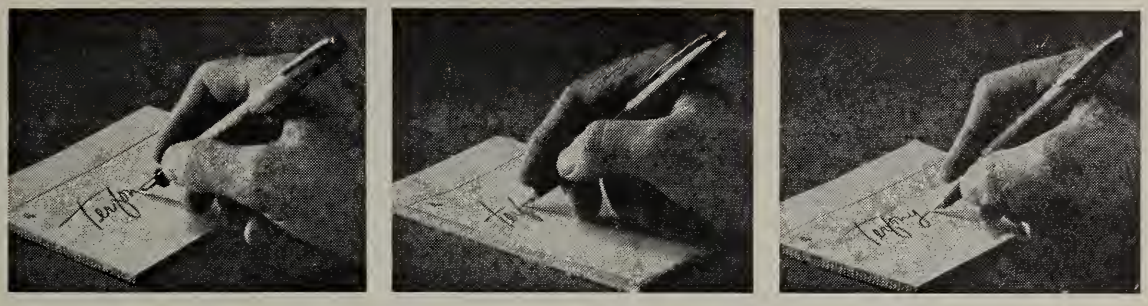

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The Michigan Diabetes Association

(Recently I had a conversation with Frank H. Jenne, Executive Director of the Michigan Diabetes Association [M.D.A.]. Mr. Jenne was asked a number of questions regarding the nature and scope of this organization. His answers were most informative and were considered appropriate for publication in this issue of the JOURNAL. *All physicians in Michigan should know about the existence of the M.D.A.*

—THE EDITOR)

Q. *What is the Michigan Diabetes Association? Isn't it fairly new?*

A. Like many other voluntary health agencies, the M.D.A. was initiated by a group of interested physicians. Although it now has two components, the Clinical Society and the Lay Society, it is organized so that the guiding direction is rendered by its physician members. In 1948 the M.D.A. was formed as a successor to the old Detroit Diabetes Association which had been active since the 1920's.

Q. *What are the roles of the component societies of the M.D.A.?*

A. The Clinical Society, which now has over 110 members, regards professional education as its primary function. To its open meetings held in conjunction with the annual assembly of the Michigan State Medical Society, the society supports a half-day postgraduate program, including outstanding speakers in the field of diabetes. The American Diabetes Association, parent organization of the M.D.A., will present its annual midwinter postgraduate course in Detroit in 1962. This year the M.D.A. will award one or two modest financial grants for the support of worthy research in the field of carbohydrate metabolism. In the future, expansion of this noteworthy effort can be expected. Along with the local medical societies, the Clinical Society is active in the annual Diabetes Detection Drive. A tremendous supporting role is played by the Lay Society during this program. Through the Lay Society, the Clinical Society directs the programs of patient and public education in diabetes. Three years ago, with no paid staff, little money and unlimited faith and energy, the Society initiated Camp Midicha, a summer camp for diabetic children. The Lay Society, with about 500 members, holds educational meetings in Detroit, and in the units now organized in Ann Arbor, Grand Rapids and Oakland County. Other similar units elsewhere in the state are being organized. The Lay Society is also active in group activities for diabetic children, discussion groups for their parents, donates volunteer service in support of the detection and camp programs, and contributes to the research fund.

Q. *Who can join the M.D.A.?*

A. Any physician or dietitian in good standing who is nominated and seconded by two present members of the Clinical Society may become a member of this society. Annual dues are only $5.00. Any non-professional person interested in diabetes and helping diabetics may become a member of the Lay Society. Their annual dues are only $2.00. The member of the Lay Society receives a regular newsletter and other informative material. Names of lay members are kept in confidence.

Q. *How do diabetics participate in diabetes detection?*

A. Every November, for one week, a drive is held to detect the undiagnosed diabetic. This detection drive is sponsored jointly by the Michigan Diabetes Association, the Michigan State Medical Society and the local county medical societies. The "Testape Dreypak" is used. This facilitates the screening (by urinalysis) of large numbers of individuals. Last year 67 new diabetics were discovered through this program.

Diabetics are asked to encourage their blood relatives to participate in this program annually. Volunteers from the Lay Society and other organizations assist in the distribution and processing of the test materials. An adequate follow-up program is essential to this detection program. All individuals with glucosuria are referred to their family physician for follow-up analysis.

Q. *Does the M.D.A. undertake diagnosis and treatment?*

A. No. All individuals who screen positive for sugar during the detection drive are referred to their family physicians for proper follow-up, diagnosis and treatment. In order to evaluate the

(Continued on Page 1582)

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(Continued from Page 1580)

program, the private physician is asked to report his final diagnosis to the M.D.A.

Q. *How is Camp Midicha for diabetic children supported?*

A. Although M.D.A. is supported in part by the Michigan United Fund, the summer camp is not subsidized. Camper's fees, memorial contributions and direct gifts support the camp. Many organizations and individuals contribute full or partial camperships for needy children. No child expressing interest is denied admission for financial reasons. The camp, located near Columbiaville, Michigan, is open for a two-week period in August. Additional support for the camp is continually sought in order to improve local facilities and lower fees for the individual camper.

Q. *What is the future of the M.D.A.?*

A. M.D.A. expects to continue its present activities on an expanded basis, reaching into all parts of the state. The frequency of diabetes in Michigan amply justifies this effort.

A Summer Camp for Diabetic Children

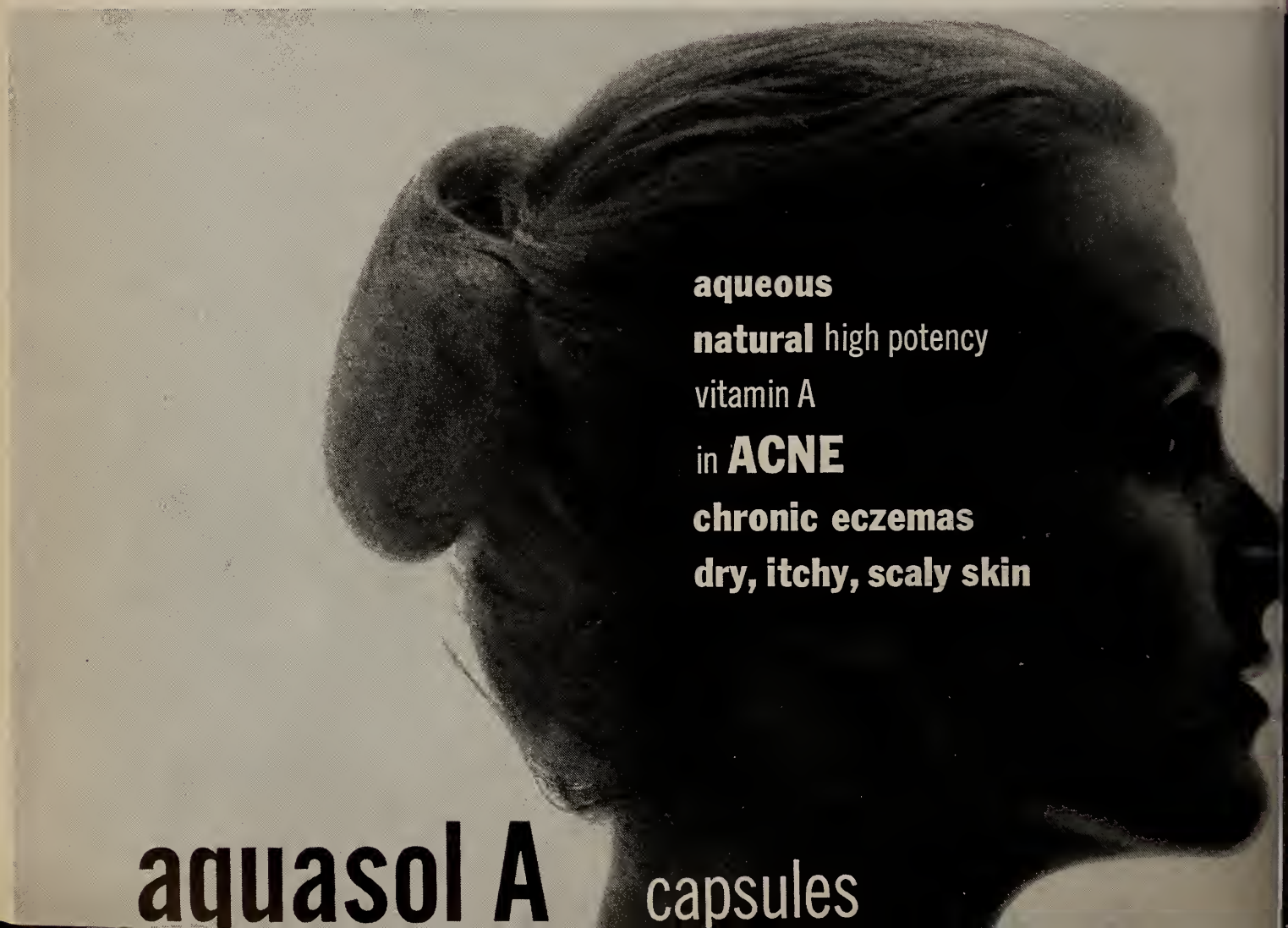
The Michigan Diabetes Association has sponsored a diabetic childrens camp for several years at Columbiaville, Michigan. It is the hope of the association that more and more physicians and parents of diabetic children will become aware of the existence and the advantages of a special camp.

This past year 70 children with diabetes attended Camp Midicha, as it is called, for the two week period.

Camp Midicha, utilizing the facilities and camping staff of Camp Tau Beta, is located a few miles north of Lapeer.

A full camping program is provided. The camp Tau Beta staff conducts the routine camping program and little alteration from their usual summer schedule for their non-diabetic campers. This is accomplished only through careful supervision by the medical staff consisting of two pediatricians, five nurses, and two dietitians.

The diet and insulin dosage are carefully balanced against each day's planned activities for the individual



child. It has been the experience of Camp Midicha that the insulin needs of at least two-thirds of the campers will vary more than ten units from the usual daily dose. However, they have never had to send a camper home because of uncontrolled diabetes.

Fig. 1. Midicha campers on kitchen police duty aid dietitian and cook.

It is the hope of the Michigan Diabetes Association that physicians and parents of diabetic children will become aware of the advantages of a diabetic childrens camp. A diabetic child often is unaware of the large numbers of similarly afflicted children. He or she feels burdened and handicapped because of the illness. However, when living in close contact with normally active diabetic children this feeling is sure to be lessened. It is to be emphasized that at Camp Midicha a normal camp life is pursued.

Another major advantage of camp life for the diabetic child is the separation from the parents. It is well known that children with chronic diseases such as diabetes become extremely dependent upon the parents and the parents become overprotective of their child. By having the child live and enjoy life away from home for a two week period, therapeutic benefit is derived for both the child and the parents.

It is the ambition of the Michigan Diabetes Association to annually enlarge Camp Midicha so that in the future a summer-long camp program may be offered to all Diabetic children of this area.

WILLIAM E. RUSH, M.D.

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Obstetrical Brevits

(This column is sponsored by the Michigan Society of Obstetrics and Gynecology.)

Puerperal Infections

In a survey of maternal deaths in Michigan made over a two and one-half year period in 1927-1930 there were 1,627 maternal deaths. Of these, 627 were attributed to puerperal sepsis, an incidence of 42.5 per cent. Infections due to abortions and following ectopic pregnancies were not included.

During the eight years, 1950 through 1957, in 624 deaths due to direct obstetric causes, there were only 88 maternal deaths due to puerperal infections, an incidence of 12.7 per cent. However, if for purposes of comparison the maternal deaths from abortion and ectopic pregnancy, of which there were 46, are deducted, there would remain only 42, an incidence of 6.7 per cent. Of these 42 deaths, 27 were due to septicemia and 15 to peritonitis.

This rather remarkable lowering of the death rate from infection can be attributed to better obstetric techniques, more frequent, prompt replacement of lost blood, the prevention of electrolyte imbalance, and the availability of antibiotic agents. Many of these deaths followed long exhausting labors, followed by traumatic deliveries, profound blood loss, and failure to maintain proper blood chemistry. In many cases the terminal sepsis might have been avoided had there been more frequent resort to consultation, better preparation of patients for cesarean section, and less reluctance to deliver abdominally, instead of permitting a prolonged labor, often terminated by a traumatic delivery and followed by severe postpartum hemorrhage.

Among the deaths from septicemia, one was a patient from whose blood stream, hemolytic, coagulase positive, antibiotic-resistant staphylococci were recovered. Another concerned a diabetic patient who appeared resistant to all forms of antibiotic therapy.

The number of infections due to organisms which do not respond to the common antimicrobal agents appears to be steadily increasing. Are we relying too much on these drugs for prophylaxis, and forgetting the time-honored, rigid aseptic techniques aimed at preventing the infection from occurring?

More careful preparation of patients for vaginal examinations, more rigid hand scrubbing, more adequate gowning and draping, and avoidance of contamination of instruments and the field of operation would make the use of prophylactic antibiotic therapy superfluous. When infection is suspected, immediate resort to bacteriologic studies by the use of smears and blood cultures should be employed. When an infectious organism is recovered, it must be subjected to bacteriologic study for identification and its sensitivity to antimicrobal materials. With this information at hand, one is capable of making an intelligent choice of a therapeutic agent for combating the infection.

TABLE I. MICHIGAN MATERNAL MORTALITY STUDY
Mortality from Puerperal Infections 1950-1957

Infected Ectopic Pregnacy	Self-induced or criminal Abortions	Peritonitis	Septicemia	Total
2	44	15	27	88

Sociologists, authorities on family living, physicians and others have for a long time considered means of combating the problem of self-induced and criminal abortions. It appears that we shall have it with us until better lay education, improved socio-economic conditions and information regarding planned parenthood are realized.

Better prenatal care, more frequent use of consultation advice, improved preparation of patients for cesarean section, avoidance of traumatic deliveries and prolonged labor, proper attention to blood chemistry, meticulous aseptic techniques, early bacteriologic studies and close postpartum supervision can still further reduce the mortality rate from puerperal infections.

National Cancer Institute Referrals

(Continued from Page 1576)

Patients can be accepted for these studies if they are ambulatory, have normal leukocyte count, renal and hepatic function and if they have metastases in the lung, peripheral lymph nodes (such as supraclavicular or cervical) or skin.

Referrals of such patients will be greatly appreciated. Physicians who wish to have their patients considered for study at the National Cancer Institute may write or call: Dr. Clyde O. Brindley or Dr. Paul P. Carbone, National Cancer Institute, Bethesda 14, Maryland. (OLiver 6-4000, Ext. 4251)

Brief and to the Point

SPEAK IN WEST—Several Michigan people spoke at the 13th annual meeting of the American Association of Blood Banks at San Francisco in August. They included Flossie Cohen, M.D., Detroit; Wolfgang W. Zuelzer, M.D., Detroit; Rosser L. Mainwaring, M.D., Dearborn; E. Eric Muirhead, M.D., Detroit; Grace F. Neitzer, Detroit; Kathryn M. Beattie, Detroit, and Emanuel Hackel, East Lansing.

* * *

SPEAKS AT MT. PLEASANT—James E. Kelly, M.D., Detroit, under the sponsorship of the Michigan Cancer Coordinating Committee, spoke at the meeting of the Gratiot-Isabella-Clare County Medical Society September 20 at Mt. Pleasant.

* * *

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports that the following topics were covered during the month of August on the weekly Sunday morning program over WJBK-TV, in Detroit: Boats, Motors, and People (safe boating), The Radiologist Explains (Radiology), To Keep Them Well (child health), Sights and Sounds Around the Dental Chair (dentistry).

* * *

SENT TO CONCLAVE—As a part of a long-range plan to broaden the international battle line against cancer, four foreign doctors training as residents in Detroit hospitals attended the Fourth National Cancer Conference in Minneapolis, September 13-15 as guests of the American Cancer Society.

The Society's Southeastern Michigan Division sponsored the attendance of Parviz Sorouri, M.D., of Iran, resident in internal medicine at Henry Ford Hospital; Angelo Kambouris, M.D., of Greece, resident in general surgery at Harper Hospital; K. K. Lie, M.D., of Indonesia, resident in general surgery, Grace Hospital; and Giovanni Chiappi, M.D., of Peru, resident in general surgery, Herman Kiefer Hospital.

* * *

CALL CANCER MEET—The Ninth Cancer Seminar of the Arizona Division, American Cancer Society, will be held at Tucson, January 12, 13 and 14. The meeting will develop the theme of "Changing Concepts in Tumor Formation and Therapy." Chairman of the seminar is Darwin Neubauer, M.D., of Tucson.

* * *

INVITES PAPERS—The American Thoracic Society (formerly, American Trudeau Society), medical Section of the National Tuberculosis Association, is soliciting abstracts of papers on all scientific aspects of tuberculosis and nontuberculous respiratory diseases for presentation at its annual meeting in Cincinnati, Ohio, May 22-24, 1961. Abstracts must be in the hands of the program committee

Contributions for this "News Briefs" department are invited from individual physicians, from county societies, and from other health organizations. Please direct your contributions to the Editor.

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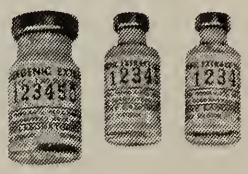

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not later than January 7, 1961. For rules, write Leon H. Schmidt, Ph.D., chairman, medical sessions committee, American Thoracic Society, 1790 Broadway, New York 19, New York.

* * *

UPJOHN AIDS U-M—The Upjohn Company has provided for the University of Michigan on an extended loan basis elaborate television projecting equipment to the Medical Center. The apparatus will be used to augment present equipment for closed-circuit television of U-M medical lectures, laboratory work and clinical demonstrations. It includes an auditorium-size screen, a tele-projector and extensive servicing equipment originally purchased by the Upjohn for the medical-TV series, "Grand Rounds."

* * *

EXPLAINS ARTHRITIS QUACKERY—The danger of misleading advertised arthritis products and treatments, and what arthritis sufferers can do to protect themselves is the subject of a pamphlet available from the Arthritis and Rheumatism Foundation.

The pamphlet, "Arthritis Quackery Today," offers the facts about current misrepresentation of drugs and devices which are costing arthritics $250,000,000 each year. It includes a set of watchwords for arthritis victims and for the general public on how to recognize quackery and how to avoid it.

The pamphlet is offered by the Arthritis and Rheumatism Foundation, 10 Columbus Circle, New York 19, New York.

* * *

INTERNATIONAL NUTRITION CONFERENCE—Military and civilian nutrition experts from 19 nations attended the Fourth Armed Forces Internation Nutrition Conference held in the United States in August. Representatives of various U. S. government agencies, including the Department of Defense, Department of Agriculture, Department of State and Department of Health Education and Welfare attended. In addition, South America, Asia, Europe and Northern Africa were represented by 40 delegates attending the conference as special guests.

* * *

MEDICAL ILLUSTRATIONS—Frank H. Netter, M.D., one of the world's foremost medical artists, has signed a new ten-year contract with CIBA Pharmaceutical Products, Inc.

The new contract will assure the completion of a twenty-year Netter project of painting 20,000 color illustrations of every signification part of the body and diseases that affect it. Dr. Netter is working on the third of the nine-volume series, called "The CIBA Collection of Medical Illustrations."

* * *

SEEKS NAMES—Approximately 200 names have been given to Karl Rothschild, M.D., 747 West Seventh Street, Plainfield, New Jersey, for the list he is preparing of physicians who are descendants of veterans of the Civil War.

He seeks the names of MDs who are sons, grandsons, great-grandsons, daughters, granddaughters or great-granddaughters of veterans of the Union or Confederate Armies.

(Continued on Page 1588)

To the relief of musculoskeletal pain, new MEDAPRIN* adds restoration of function

Analgesics offer temporary relief of musculoskeletal pain, but they merely *mask* pain rather than getting at its *cause*. New Medaprin, in addition to bringing about prompt subjective improvement, promotes the *restoration of normal function* by suppressing the inflammation that *causes* the pain.

Medaprin, Upjohn's new analgesic-steroid combination, contains aspirin plus Medrol,** the corticosteroid with *the best therapeutic ratio in the steroid field.*† Instead of suffering recurrent discomfort because of the "wearing off" of analgesics, the patient on Medaprin experiences a smooth, *extended* relief and more normal mobility.

Indications: Medaprin is indicated in mild-to-moderate rheumatic and musculoskeletal conditions, including rheumatoid arthritis, deltoid bursitis, low back pain, neuralgia, synovitis, fibromyositis, osteoarthritis, low back sprain, traumatic wrist, sciatica, and "tennis elbow."

Dosage: The recommended dosage is 1 tablet q.i.d. The usual cautions and contraindications of corticotherapy should be observed.

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Grand Rapids, Michigan

(Continued from Page 1586)

The list, Dr. Rothschild explained, will not be used to establish a new organization, but may be published for informational purposes.

* * *

JUSTIN L. POWERS RETIRES—Justin L. Powers, editor of the Scientific Edition of the *Journal of the American Pharmaceutical Association* retired October 1, 1960, after many years of outstanding service. Born in Tekonsha, Michigan, on March 12, 1895, he received the Ph.C., B.S., and M.S. degrees from the University of Michigan College of Pharmacy, and the Ph.D. from the University of Wisconsin. After a long career which included faculty appointments at pharmacy schools at Washington State College, Oregon State College and the University of Michigan, Mr. Powers went to Washington, D. C., in 1940 as chairman of the APA Committee on the National Formulary. Soon afterwards he also assumed the editorship of the Scientific Edition.

* * *

NATIONAL CANCER CONFERENCE — The theme of the Fourth National Cancer Conference held September 13-15 at the University of Minnesota was "Changing Concepts Concerning Cancer." Sponsored every four years by the American Cancer Society and the National Cancer Institute, the National Cancer Conference summarized recent developments in cancer research and clinical cancer. Outstanding authorities spoke on changing concepts concerning cancer, frontiers in biology and cancer research, and care of the advanced cancer patient.

* * *

FOR GENERAL PRACTITIONERS AND INTERNISTS—Applications for Charter Membership in the American Society of Diagnostic Radiology are now being received. Membership is open to general practitioners and internists who do or may desire to do some types of Diagnostic Radiology in their offices. For further information please write Louis Shattuck Baer, M.D., F.A.C.P., 411 Primrose Road, Burlingame, Calif.

* * *

EXAM SCHEDULED—The American Board of Obstetrics and Gynecology announces that the next scheduled examination (Part 1), written, will be held in various cities of the United States, Canada, and military centers outside the Continental United States, on Friday, January 13, 1961. Reopened candidates are required to submit Case Reports for review thirty days after notification of eligibility. Scheduled Part 1 and candidates resubmitting Case Reports are required to submit Case Reports prior to August 1 each year. Details may be obtained by writing Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6.

* * *

CONFERENCE ON NUCLEAR MEDICINE—The Society of Nuclear Medicine recently concluded its 7th Annual Meeting in Estes Park, Colorado. Approximately 500 physicians and other scientists from the United States of America and other countries were in attendance at this meeting, where over 70 papers were presented.

. . . MALNUTRITION OR
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Titus C. Evans, Ph.D., Iowa City, Iowa, was elevated to the presidency, and Lindon Seed, M.D., Chicago, Illinois, was chosen president-elect, William H. Beierwaltes, M.D., Ann Arbor, was elected treasurer.

The 8th Annual Meeting of the Society of Nuclear Medicine will be held at the Penn Sheraton Hotel, Pittsburgh, Pennsylvania, June 14-17, 1961.

MEDICAL MEETINGS U.S.A.

American Academy of Pediatrics, October 17-20, Palmer House, Chicago. E. H. Christopherson, M.D., 1801 Hinman Avenue, Evanston, Executive Director.

National Safety Congress, October 17-21, Chicago. R. L. Forney, 425 North Michigan Avenue, Chicago 11, Secretary.

Postgraduate course in Laryngology and Brochoesophagology, October 17-29, The Department of Otolaryngology, University of Illinois College of Medicine, Chicago, Illinois. For information write to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12.

Clinical Conference on Gynecologic Cancer, October 21 and 22, The University of Texas. M. D. Anderson Hospital and Tumor Institute, Houston, Texas.

American Heart Association, Inc., October 21-25. Jefferson Hotel, St. Louis. Rome A. Betts, 44 East 23rd Street, New York 10, Executive Director.

Mid-West Forum on Allergy, October 22-23, Penn-Sheraton Hotel, Pittsburgh. Macy I. Levine, 3347 Forbes Avenue, Pittsburgh 13, Program Chairman.

Twenty-fifth Annual Convention of the American College of Gastroenterology, October 24-26, Bellevue-Stratford Hotel, Philadelphia.

4th Annual Postgraduate Week, October 24-28, New York Academy of Medicine, New York.

American College of Gastroenterology Annual Course in Postgraduate Gastroenterology, October 27-29, Bellevue-Stratford Hotel, Philadelphia, Pennsylvania. For further information and enrollment write to the American College of Gastroenterology, 33 West 60th Street, New York 23.

Clinical Orthopaedic Society, Inc., October, Milwaukee. Charles H. Frantz, M.D., 1810 Wealthy Avenue S.E., Grand Rapids, Secretary-Treasurer.

67th Annual Convention of Military Surgeons, October 31-November 2, Mayflower Hotel, Washington, D. C.

13th Annual Conference on Electrical Techniques in Medicine and Biology, October 31-November 1-2, Sheraton-Park Hotel, Washington, D. C.

88th Annual Meeting of the American Public Health Association, October 31-November 4, Civic Auditorium, San Francisco, California. For information write to American Public Health Association, 1790 Broadway, New York.

14th Annual Postgraduate Assembly, November 2-3, San Diego County General Hospital, San Diego, California. William Tisdale, M.D., c/o San Diego County General Hospital, San Diego 3.

Advances in Clinical Chemistry Methods, November 9-11, The Frank E. Bunts Educational Institute, 2020 East 93rd Street, Cleveland 6.

4th Annual Symposium on Diabetes, November 11, Offield Auditorium, Passavant Memorial Hospital, Chicago. The

Chicago Diabetes Association, 620 North Michigan Avenue, Chicago 11.

American Medical Association Clinical Meeting, November 28-December 1, Washington, D. C.

American Academy of Dermatology and Syphilology, December 3-8, Palmer House, Chicago. Robert R. Kierland, M.D., First National Bank Building, Rochester, Minnesota, Secretary-Treasurer.

Conference on Handicapped Children in Michigan: Problems, Programs, and Services, February 20-21, School of Public Health, University of Michigan, Ann Arbor.

Conference on Applied Epidemiology in Communicable Disease Control, March 7-10, School of Public Health, University of Michigan, Ann Arbor.

Institute on Newer Aspects of Public Health for Health Officers, March 27-31, School of Public Health, University of Michigan, Ann Arbor.

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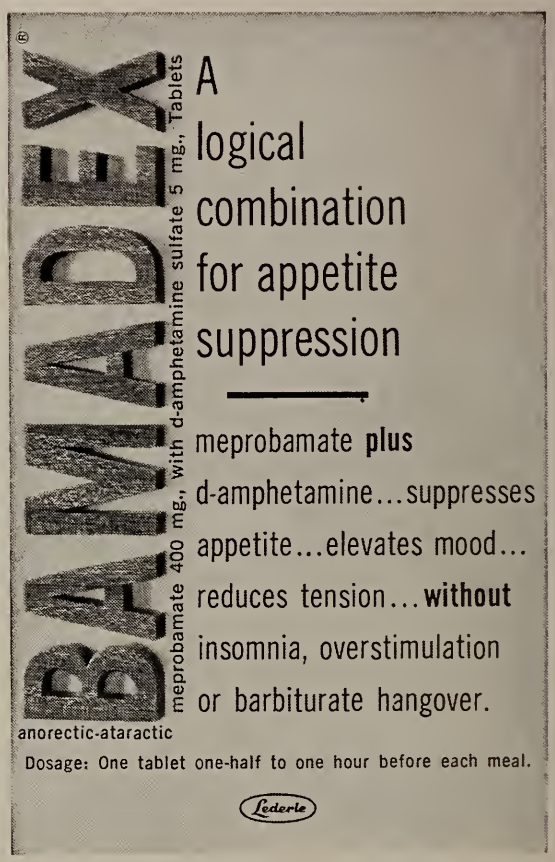

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IN MEMORIAM

PAUL R. URMSTON, M.D., eighty, of Bay City, a former president of the Michigan State Medical Society, died August 24, 1960.

A native of Hamilton, Ohio, Doctor Urmston received his M.D. degree from the University of Illinois in 1903. He was an eye, ear, nose and throat specialist.

Long active in both state and county medical societies, Doctor Urmston had served as member and chairman of The Council of MSMS for several years. He was a member of the MSMS House of Delegates for fifteen years. He was a past president of the Bay County Medical Society, and was serving as medical advisor to the local group at the time of his death.

He was a member of Alpha Kappa Kappa medical fraternity.

During World War II, Doctor Urmston was in charge of Michigan's program to produce, induct and assign U. S. army medical doctors.

HERMAN BEUKER, M.D., sixty-two, Marshall physician, died August 7, 1960.

Doctor Beuker was a native of Grand Rapids and summer resident of Crystal Lake, Benzie County.

He was former chief of staff of Oaklawn Hospital in Marshall and supervised construction of the new hospital.

HENRY M. BLACKBURN, M.D., seventy, Grand Rapids physician, died August 25, 1960.

Born in Lynville, Tennessee, Doctor Blackburn had been a Grand Rapids resident forty-seven years. A graduate of Vanderbilt University School of Medicine in 1913, he received his specialized training at Rush Medical College of the University of Chicago.

He served as a captain in the Army Medical Corps, attached to the 32nd division in the Mexican border campaign and in World War I in France.

Doctor Blackburn served on the staffs of Butterworth, Blodgett Memorial and St. Mary's Hospitals.

THEODORE P. EBERHARD, M.D., fifty-six, associate radiologist at St. Joseph Mercy Hospital, Ann Arbor, since 1955, died August 14, 1960.

Doctor Eberhard was a native of Akron, Ohio. He received his bachelor's degree from the University of Akron and his M.D. degree from Western Reserve University, Cleveland, in 1930.

He did his internship in surgery in 1932 at Lakeside Hospital, Cleveland, and interned in pathology in 1933 at New England Deaconess Hospital, Boston, Massachusetts.

He was a resident pathologist with the Ponville State Cancer Hospital in Wrentham, Massachusetts, in 1934. From 1934-36, he held a fellowship in surgery at Columbia Presbyterian Hospital in New York City, where he served as an instructor in surgery in 1937. In 1939, he was an instructor in radiology at the same hospital.

From 1939-42, Doctor Eberhard was medical director of the Ellis Fischel State Cancer Hospital in Columbia, Missouri. He was on active duty with the U. S. Army Eighth General Hospital in New Caledonia from 1942-46.

In addition to Doctor Eberhard's medical society affiliations, memberships included the American Radium Society, the American Association for Cancer Research, the Arthur Purdy Scout Club, the Allen Q. Whipple Surgical Society and the Philadelphia College of Physicians. He was an honorary member of the Detroit Roentgen Ray Society and a fellow of the American College of Radiology.

JOHN W. C. FLEMING, M.D., eighty-eight, retired Pewamo physician, died August 23, 1960.

Doctor Fleming served as the village president for one term many years ago.

He was a life member and past master of Pewamo Lodge 405, F.&A.M., and a member of Scottish Rite Consistory, Grand Rapids.

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J. R. W. KIRTON, M.D., eighty-four, retired Calumet physician, died August 24, 1960.

A native of Sarnia, Ontario, Doctor Kirton came to the Copper Country in 1898. He served as physician for several mining companies in the Calumet area during the years prior to his retirement in 1947.

Doctor Kirton was a Life Member of the Michigan State Medical Society.

WARD F. SEELEY, M.D., seventy-one, obstetrician-gynecologist who had served Detroiters for forty-five years, died August 22, 1960.

Doctor Seeley received his medical degree from the University of Michigan in 1911. He came to Detroit in 1915 after four years as an instructor of obstetrics and gynecology at the University of Michigan Medical School. During World War I, he served overseas and was cited for work as a major in the Army Medical Corps.

Doctor Seeley was known as a tireless worker who stressed proper prenatal care for mothers.

In addition to other medical society affiliations, he served as treasurer of the American Association of Obstetricians and Gynecologists from 1942 until 1958.

He was a fellow of the American College of Surgeons and a past chief of obstetrics and gynecology at Harper, Herman Kiefer and Receiving Hospitals.

Doctor Seeley was a professor emeritus of medicine at Wayne State University.

He belonged to the Detroit Athletic Club and the Plum Hollow Golf Club.

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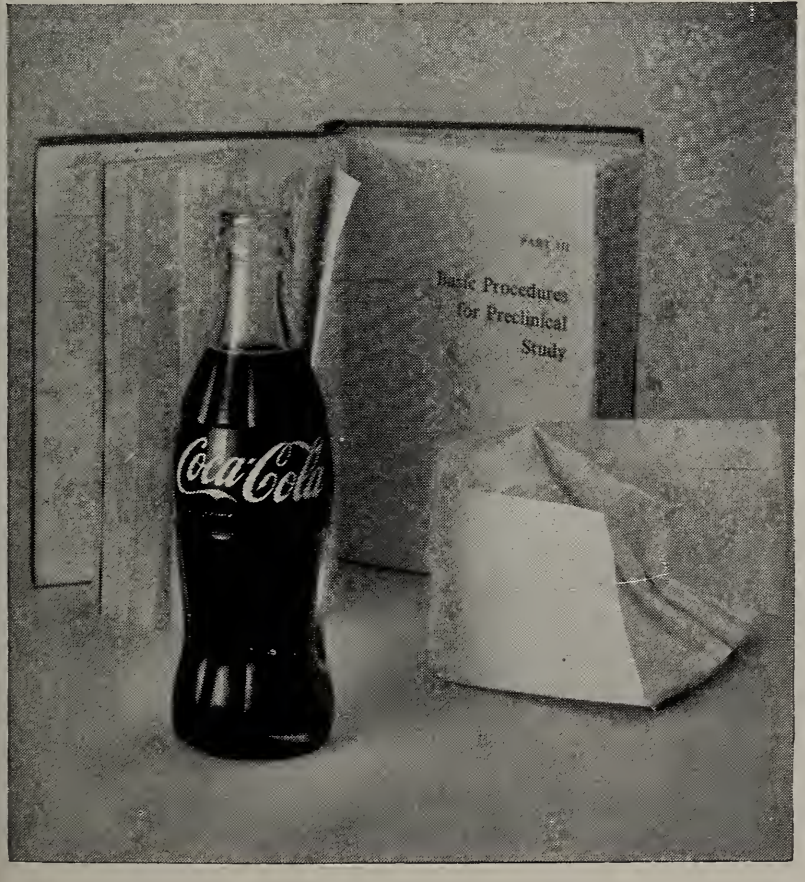

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Michigan Authors

Harry Vander Kamp, M.D., Battle Creek, "The Metabolic Error in Schizophrenia," *Medical Times,* August, 1960.

Stefan S. Fajans, M.D., John A. Moorhouse, M.D., H. Doorenbos, M.D., Lawrence H. Louis, Sc.D., and **Jerome W. Conn, M.D.,** Ann Arbor, "Metabolic Effects of Phenethylbiguanide in Normal Subjects and in Diabetic Patients," *Diabetes,* May-June, 1960.

David C. English, M.S., M.D., Jackson, "Librium, A New Non-Sedative Neuroleptic Drug: A Clinical Evaluation," *Current Therapeutic Research,* March, 1960.

O. J. King, Jr., M.D., and **W. W. Glas, M.D.,** Eloise, "Complications of Tracheotomy," *Rocky Mountain Medical Journal,* August, 1960.

Gerald D. Abrams, M.D., Jane E. Bishop, M.A., Henry D. Appleman, and **A. James French, M.D.,** Ann Arbor, "Development of a Laboratory for Germfree Research in the Department of Pathology," *University of Michigan Medical Bulletin,* June, 1960.

M. A. Block, M.D., R. C. Horn, M.D., and **B. E. Brush, M.D.,** Detroit, "The Place of Total Thyroidectomy in Surgery for Thyroid Carcinoma," *Archives of Surgery,* August, 1960.

Robert E. L. Berry, M.D., Ann Arbor, "The 'Third Kidney' Phenomenon of the Gastrointestinal Tract," *Archives of Surgery,* August, 1960.

Arthur J. Vorwald, Ph.D., M.D., F.C.C.P., Detroit, "Diffuse Fibrogenic Pneumoconiosis," *Industrial Medicine and Surgery,* August, 1960.

Jack Lapides, M.D., F.A.C.S., Edward P. Ajemian, M.D., Bruce H. Stewart, M.D., John R. Lichtwardt, M.D., and **Barry A. Breakey, M.D.,** Ann Arbor, "Physiopathology of Stress Incontinence," *Surgery, Gynecology and Obstetrics,* August, 1960.

Charles W. Porter, A.M., and **George E. Block, M.D.,** Ann Arbor, "Some Influences of Estrogen upon the Metabolism of Mammary Tumors," *University of Michigan Medical Bulletin,* June, 1960.

Eugene I. Winkelman, M.D., Ann Arbor, "Salicylates and the Gastrointestinal Tract: A Review," *University of Michigan Medical Bulletin,* June, 1960.

E. E. Hammonds, M.D., Birmingham, **K. E. Corrigan, Ph.D.,** and **H. S. Hayden, Ph.D.,** Royal Oak, "Cardiotoxic Thyroid and Radioactive Iodine," *Journal of American Medical Association,* August 27, 1960.

E. A. Carr, Jr., M.D., W. H. Beierwaltes, M.D., H. R. Crane, Ph.D., Audrey Wegst, M.S., and **N. R. Spafford, A.B.,** Ann Arbor, "Radioactive Iodine in the Fetal Thyroid from Fall-Out," *Journal of American Medical Association,* August 27, 1960.

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COMMUNICATIONS

Michigan State Medical Society
606 Townsend Street
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Dear Sir:

Congratulations on the new MSMS publication, "Medical Economic Currents." It looks like an excellent job.

Sincerely,
ARTHUR KEMP, *Director*
Department of Economic Research
American Medical Association

Mr. William J. Burns
Executive Director
Michigan State Medical Society

Dear Mr. Burns:

I would like to take this opportunity to thank you, members of the medical profession, and others in Michigan who co-operated so splendidly these past two years in our effort to defeat Forand-type legislation.

It would be my personal wish to be able to write to each individual member of your organization to express my appreciation for their co-operation in winning this important battle for American medicine, but I am sure you realize this task would be most difficult in the light of many persons who assisted us.

Certainly the physicians in your State must recognize the vast amount of time and effort spent by many individual doctors in Michigan, as well as the fine work of Mr. Brenneman, Mr. Philleo and other members of your staff.

Other organizations should not be overlooked. I read many friendly editorials in Michigan newspapers and saw how well other organizations such as the Michigan Farm Bureau, Chamber of Commerce, insurance industry, etc., co-operated in this effort.

After each visit to your State, our field representative, Rueben Dalbec, reported the friendly co-operation he received from the executive office, and all with whom he visited.

Again, thanks for your help, and I hope you will kindly relay my personal gratitude to all in Michigan who helped bring about this decisive victory.

Sincerely yours,

F. J. L. BLASINGAME, M.D.
Executive Vice President
American Medical Association

September 7, 1960
Chicago, Illinois

"What unsatisfactory cases these are! This clever, charming, and widely known lady will some day disgrace us all by being juggled out of her maladies by some bold quack who by mere force of assertion will give her the will to bear, or forget, or suppress all the turbulences of her nervous system."—SIR JAMES PAGET, 1866.

Say you saw it in the Journal of the Michigan State Medical Society

EDITORIAL COMMENT

Five-Digit Figures

Bay City Times, July 3, 1960

Doting parents who dream someday of having a doctor in the family please note:

According to the Association of American Medical Colleges, medical students are currently spending some $2,911 a year for medical schooling, or $11,644 for the four-year course.

What it really amounts to, the AAMC warns, is that children of low or modest income families cannot usually aspire to the profession. And this in a day when an expanding population and growing health needs demand a continuing increase in the number of doctors.

The answer is some kind of financial assistance. What it will be—government or private—is a question that one day soon will confront the taxpayers. Not only in medical schooling but most other college education as well.

Nation Fights Novoteitis

The New Physician, October, 1960

Prominent leaders in American medicine have again warned all America against a possible epidemic of "Novoteitis," a disease affecting many adult Americans.

These same leaders point out that although vast sums have been spent on research and education since the last great outbreak in 1956, there is always a possibility of a flare-up. Because of the nature of this peculiarly American disease (of which too little is known), it can appear in many areas of the land at the same time. Although of short duration, the epidemic often leaves the nation with serious after affects.

Researchers have found, however, that immunity from novoteitis is obtained through constant vigilance. They have also determined that the disease attacks both males and females beginning at the 21-year level, although one state reported cases among 18-year-olds.

During the past four years, the study showed that "Novoteitis" is no respector of personalities, as it strikes at all levels of the nation's income groups. However, the facts show that a large number of cases occur among members of the professions, with doctors of medicine being among those often afflicted.

Temporary paralysis of the hand and loss of forward motion in the feet, both characterize the disease. Strangely enough, the diagnoses have been more readily made by political observers then by busy men of American medicine.

The implications of the above allegory are many. To the practicing profession, it is both a challenge and an indictment. To the medical student it can mean just one thing—the development and use of the strongest antibiotic known to politics—the individual doctor's vote.

Only when physicians-to-be and physicians-who-are accept their full and complete responsibilities of American citizenship, can there be hope of relief from the ravages of novoteitis—a disease welcomed by self-perpetuating politicians to the detriment of the people at large.—RFS.

Doctors Should Welcome the Test

Jackson Citizen Patriot, August 7, 1960

There is going to be much criticism of the United Automobile Workers action in setting up its own medical-care plan to compete with Blue Cross and Blue Shield. It is a step toward socialized medicine —of this there can be little doubt—and as such will be fought bitterly.

Yet we wonder if the union's "Community Health Assn." shouldn't be welcomed instead of opposed.

. . . Not because it moves TOWARD socialized medicine, but because it IS, in a sense, a preview of what socialized medicine actually will offer.

And, as such, it is going to give the American people an actual example in practice, right here, of this ogre-panacea we've been hearing so much about for so many years.

We say this not because the Citizen Patriot believes in socialized medicine but because we have faith in our medical profession as it has developed in the United States.

* * *

Before going any further, it might be well to get the ground rules for this "contest" clearly in mind. The UAW plan calls for an organized team of doctors working out of a medical group center to handle the health needs of association members.

This represents the greatest evil of socialized medicine, as its foes have been arguing for years. It means that participants will have no choice—or at the best

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a limited one—in their doctors; that day or night they will have to depend on the willingness of salaried men to serve their needs; that if they are dissatisfied with the treatment they receive, they will have virtually no recourse.

On the other hand, the UAW proposal also will provide the greatest benefits claimed by advocates of a government-run medical profession: The full facilities and abilities of trained men and splendid institutions will be made available to them; their house-call, office-call and home-nursing expenses will be paid as well as hospitalization and surgery; greater emphasis, proponents say, will be placed on preventive medicine.

The key difference between the UAW plan and government subsidy is that people are paying directly, in the form of insurance. However, this is a difference only on the surface: for, never fear, in any form of socialized medicine the people will pay.

And, once again emphasizing the "pilot project" nature of the UAW program. they will pay more under CHA (the UAW plan) then under Blue Cross, but will get more.

* * *

Thus we are going to see all the claimed evils and benefits pitted against each other in an actual operation. It's our guess that within five years the UAW program will either have faded out of the picture or have been so greatly altered as to lose most of its tinges of socialization.

Further, we would suggest to the medical profession that it spend less time making speeches against CHA and put more effort into cleaning up the abuses which have crept into its own setup and make even a pilot-run of a semi-socialized medical program possible.

"We know nothing of what will happen in the future but by the analogy of past experience. We dare not disregard the lessons of experience. We all feel that we know that a blast of wind would extinguish the flame of the candle that stands by me. How do we know it? We have never seen this flame thus extinguished. We know it because we have seen through all our lives that a blast of wind extinguishes the flame of a candle whenever it is thrown fully upon it. Again, we all feel we know that we have to die. How? We have never died yet. We know it because we know—at least we think—that of all the beings, just like ourselves, who have been coming into the world for 6,000 years, not one is now living who was here 200 years ago."—ABRAHAM LINCOLN.

Say you saw it in the Journal of the Michigan State Medical Society

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review as expedient.

A DOCTOR IN MANY LANDS. The Autobiography of Aldo Castellani. Garden City, New York: Doubleday & Company, Inc., 1960. Price, $4.95.

This is a very interesting and entertaining book about a famous physician who practiced in many countries and associated with many notable personalities. When one wants some diversion from the scientific journals, this will be most enjoyable reading.

H.A.

MASTER YOUR TENSIONS AND ENJOY LIVING AGAIN. By George Stevenson, M.D., and Harry Milt. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1959. Price, $4.95.

This is an excellent book for the general public explaining the cause of modern-day tensions, what to do about them and how to avoid them. The subject matter is easy reading and the many case histories holds the reader's attention.

H.A.

SIGNIFICANT TRENDS IN MEDICAL RESEARCH. Ciba Foundation Tenth Anniversary Symposium Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., Cecilia M. O'Connor, B.Sc., Maeve O'Connor, B.A. 41 illus. Boston: Little, Brown and Company, 1960. Price, $9.50.

This book is a compilation of the subjects presented concerning medical research at a symposium of the Ciba Foundation. The participants are internationally recognized authorities and the material is well selected. It would seem that the book would be of more interest to those in research and the basic sciences rather than the practicing physician.

H.A.

BIOCHEMISTRY OF HUMAN GENETICS. Ciba Foundation Symposium Jointly with The International Union of Biological Sciences. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Cecilia M. O'Connor, B.Sc. 60 illus. Boston: Little, Brown & Company, 1960. Price, $9.50.

This is a collection of papers on the subject of Human Genetics presented at a Ciba Foundation Symposium. Since the material is up to date and highly detailed, it would be of great interest to the research workers in this field.

H.A.

THE CLONAL SELECTION THEORY OF ACQUIRED IMMUNITY. By Sir Macfarlane Burnet. Nashville: Vanderbilt University Press, 1959. Published in Great Britain by Cambridge University Press. Price, $4.00.

The Clonal Selection Theory of Acquired Immunity postulates that the unit to be considered is not the cell but the clone, that is, a group or family of cells which have multiplied asexually and so have identical genetic constitutions. This book should be of interest to those in the fields of virology, bacteriology and related subjects.

H.A.

PRINCIPLES OF PUBLIC HEALTH ADMINISTRATION. By John J. Hanlon, M.S., M.D., M.P.H., Director of Public Health Services, City of Philadelphia, and Professor and Head, Department of Preventive Medicine and Public Health, Temple University School of Medicine, Philadelphia, Pa. Third Edition, illustrated, St. Louis: The C. V. Mosby Company, 1960. Price, $10.50.

This is the third edition of this book on public health administration and new chapters on social services and addictive diseases have been added. The material is covered in a most comprehensive manner and for those interested in this subject, the book is an excellent reference work.

H.A.

NEUROSURGERY. Surgery in World War II, Medical Department, United States Army. Volume II. Prepared and published under the direction of Major General S. B. Hays, The Surgeon General, United States Army. Editor-in-Chief, Colonel John Boyd Coates, Jr., M.C. Editors for Neurosurgery, R. Glen Spurling, M.D., Barnes Woodhall, M.D. Associate Editor, Elizabeth M. McFetridge, M.A., Washington, D. C.: Office of the Surgeon General, Department of the Army. 1959. Price, $7.00.

This volume is the second in the Neurosurgical Series and deals with injuries to the spinal cord and peripheral nerves. It is a compilation by neurosurgeons who were responsible for treating these injuries during World War II and who

(Continued on Page 1600)

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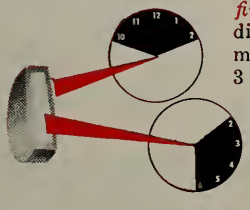

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have without exception established themselves as authorities in their specialty.

Part I covers injuries to the spine and the spinal cord. In this section are discussed first aid treatment, indications for laminectomy, methods of laminectomy, and post-operative care. In the post-operative care, emphasis is devoted to the urological aspects of cord injuries, decubitus ulcers, their prevention and treatment, personal and mental hygiene, and physical reconditioning.

Part II covers injuries to the peripheral nerves. In this section are discussed timing of nerve repair, methods of examining peripheral nerve injuries, anatomy, incisions, surgical approaches, and the surgical technique in most of the commonly injured peripheral nerves. Special chapters are devoted to combine bone and peripheral nerve injuries, to skin and soft tissue defects with peripheral nerve injuries, and vascular injuries with peripheral nerve injuries, and to causalgia. Physical therapy in peripheral nerve lesions and orthopedic techniques are also discussed.

The injuries discussed in this volume are seen sufficiently frequent to require complete knowledge of their care, but not so frequent in peace time to permit adequate experience. This volume gives all who handle these injuries the benefit of the knowledge and judgment of those who treated the tremendous number of these injuries in World War II. This volume is highly recommended to all who include trauma in their practice and is a must in any complete neurosurgical library.

J.C.G.

THE ETIOLOGY AND CONTROL OF PROGRESSIVE AXIAL MYOPIA. A critical, analytical, clinical study of this process from the angle of acids and proteolytic ferments and their effects upon the colloids of the eye. Also A Few Selected Papers by Hunter Heiner Turner, M.D., Nanticoke, Md. 113 pages. Privately published.

Dr. Turner, in his letter of transmittal, states he is mainly interested in protecting the vision of those unfortunates who are victims of progressive myopia. He has a most unusual explanation of the condition, gives quite a number of extensive case reports tending to support his theory that nasal and aural conditions together with salt metabolism have an influence. A challenging, interesting, and well-printed book.

NINE MONTHS' READING. A Medical Guide for Pregnant Women. By Robert E. Hall, M.D., illustrated by Robert Demarest, Garden City, New York: Doubleday & Company, Inc., 1960. Price, $2.95.

This book is primarily written for imparting general knowledge to the expectant mother and her husband. It is to be used as a supplement to the visits to her doctor. The contents encompass anatomy, physiology, hospital procedures, labor, delivery and postpartum care. Controversial issues and the newer fads are presented and fully discussed by the author. This book is very comprehensive and would be of great value to any intelligent expectant parent, both as a reference and for general information.

J.R.P.

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November, 1960

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THE COVER

The cover of this number recognizes the three-fold program of the Michigan Heart Association, member of the United Fund. Many of the scientific articles and other editorial comment also pertain to heart this month.

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R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Creek	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

*To fill unexpired term of R. W. Shook, M.D., deceased.

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President's Page

DOCTOR JOHNSON INSTALLED

"The Presidential Medallion" is placed around the neck of Kenneth H. Johnson, M.D., right, as he is installed as the President of the Michigan State Medical Society by Milton A. Darling, M.D., retiring president.

Kenneth H. Johnson, M.D., of Lansing, was installed as president of the Michigan State Medical Society, September 27, in Detroit during the Society's 95th annual scientific meeting. Last September in Grand Rapids Doctor Johnson was chosen president-elect by the MSMS House of Delegates.

For the next twelve months, Doctor Johnson will serve as head of our professional society.

The new State Medical Society president, who succeeds Milton A. Darling, M.D., of Detroit, has long served his profession in various roles of leadership. He was Speaker of the MSMS House of Delegates (1957-59). Election to that position followed three terms as Vice-Speaker of the MSMS policy-making body.

He also served as representative of the Ingham County Medical Society to the MSMS House of Delegates from 1952 to 1959 when he was named president-elect of the State Society. He also has devoted his talents to numerous MSMS committees.

For the Ingham County Medical Society, he served as president in 1953 and secretary from 1946 to 1949.

Doctor Johnson, born in July, 1908, began the general practice of medicine in Lansing in 1934. He received his medical degree from the University of Michigan Medical School in 1932. He attended Michigan State University before entering medical school. In Lansing, he is a member of the Sparrow and St. Lawrence Hospital staffs.

In World War II, Doctor Johnson served in the air force with the rank of Captain.

Doctor and Mrs. Johnson have two sons, David and Richard.

Doctor Johnson will begin his monthly "President's Page" messages with the December number of The Journal.

Summary of 1960 MSMS Annual Session

By J. J. Lightbody, M.D., Speaker of the MSMS House of Delegates
H. F. Falls, M.D., Vice-Speaker of the MSMS House of Delegates

Following is a summary of the proceedings of the 1960 MSMS House of Delegates, held September 25-27, 1960, at the Sheraton-Cadillac Hotel, Detroit:

On matters dealing specifically with the County Medical Societies, the House:

1 . . . urged all county medical societies to sponsor an annual County-State Societies Night.

2 . . . endorsed adoption of a national uniform procedure for transfer of a member's membership from one Society to another, county or state.

3 . . . deleted an MSMS Bylaws stipulation that *all* provisions of the MSMS Constitution and Bylaws be an integral part of a county medical society's own Constitution and Bylaws, substituting instead the stipulation that county medical society documents merely be *consistent* with the MSMS Constitution and Bylaws.

* * *

On matters dealing with the manner of electing Officers of the State Society, the House:

1 . . . disapproved a 1959 Constitutional proposal that the MSMS Secretary and Treasurer be elected by the House of Delegates, thereby leaving the election of those two to The Council itself. The House directed that the Secretary and Treasurer serve without the right to vote in The Council.

2 . . . recommended continuation of the present procedure for electing the Editor of THE JOURNAL of the State Society (by The Council).

3 . . . approved of The Council electing its own officers (Chairman, Vice-Chairman, and the Chairman of its three Standing Committees) at its first meeting following adjournment of the House of Delegates (instead of at its Annual Meeting in January).

4 . . . reduced the length of term of Councilors elected in 1960 and thereafter, to three years (presently 5 years).

5 . . . limited the number of members of The MSMS Council who may hold simultaneous positions on the Blue Shield Board of Directors, to two.

6 . . . directed The Council to appoint a Historian of the State Society.

* * *

The House of Delegates elected the following officers for the coming year:

President-elect....Otto K. Engelke, M.D., Ann Arbor
Speaker of the House of Delegates.....
J. J. Lightbody, M.D., Detroit
Vice-speaker of the House.....
H. F. Falls, M.D., Ann Arbor
Councilor, 2nd District (to 1963).....
O. B. McGillicuddy, M.D., Lansing
Councilor, 3rd District (to 1963).....
H. J. Meier, M.D., Coldwater
Councilor, 7th District (to 1962).....
J. J. Coury, M.D., Port Huron
Councilor, 9th District (to 1962).....
R. V. Daugharty, M.D., Cadillac
Councilor, 12th District (to 1963).....
J. R. Dehlin, M.D., Gladstone
Councilor, 15th District (to 1963).....
R. J. Mason, M.D., Birmingham
Councilor, 16th District (to 1963).....
Wyman C. C. Cole, Sr., M.D., Detroit

Delegates to the A.M.A.
Wm. Bromme, M.D.....Detroit
R. L. Novy, M.D.....Detroit
G. W. Slagle, M.D.....Battle Creek

Alternate Delegates to the A.M.A.
L. R. Leader, M.D.....Detroit
J. R. Heidenreich, M.D.....Daggett
D. N. Sweeny, Jr., M.D.....Detroit

* * *

On matters dealing with general State Society business, the House:

1 . . . recommended that the MSMS schedule a mortgage repayment period for the new headquarters building over a number of years (about 6).
2 . . . approved a $10 per year increase in the members' dues to MSMS (to $75), beginning in 1961.
3 . . . laid over until the 1961 Session of the House (since it is a Constitutional amendment) a proposal to reapportion the MSMS Councilor Districts.
4 . . . recommended Council investigation of the possibility of forming a special loan fund to assist new doctors in establishing private practices.
5 . . . instituted a recognition award for MSMS employes, based on length of service.
6 . . . endorsed the Health Insurance Council "report form" for MSMS members' use.
7 . . . directed that a resolution be presented to the House of Delegates of the American Medical Association recommending that an adequate out-patient department in a private hospital, or an equivalent course of training, be accepted as meeting the requirements of an approved residency training program.

* * *

On matters relative to committees, the House:

1 . . . maintained the membership of the Postgraduate Education Committee at thirteen, instead of lowering it to seven as was proposed last year in a Constitutional amendment (laid over to this Session).
2 . . . reactivated the MSMS Cancer Control Committee.
3 . . . suggested that the MSMS Rheumatic Fever Control Committee's scope be enlarged to include cardiac diseases in general.
4 . . . recommended that the MSMS Maternal Health Committee intensify its study to reduce infant mortality.
5 . . . changed the name of the MSMS Section on Medicine to "Section of Internal Medicine."
6 . . . directed the establishment of a House of Delegates Committee to study and prepare plans for a "long range study of social, political and economic trends likely to affect future medical care in Michigan."
7 . . . deleted from the MSMS Constitution and Bylaws a requirement that a county medical society's Ethics Committee *must* report dismissals of complaints to the full county society membership.

* * *

On matters dealing with legislation and governmental affairs, the House:

1 . . . urged that MSMS invite other participants in the September 21-22 Michigan White House Conference on Aging to join in issuing a dissenting report on the Conference, to be transmitted to the national conference in Washington in January, 1961.
2 . . . directed that The Council express to the Michigan Legislature MSMS' concurrence in the two measures adopted by that body on September 23, 1960, which provide health benefits to Michigan's needy senior citizens.

(Continued on Page 1620)

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DOSAGE: varies according to severity of infection. Usual adult dose—250 to 500 mg. q.i.d. Usual pediatric dose: 3-5 mg./lb. body weight every 6 hours.

NOTE: In some children, when TAO was administered at considerably higher than therapeutic levels for extended periods, transient-jaundice and other indications of liver dysfunction have been noted. A rapid and complete return to normal occurred when TAO was withdrawn.

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OTHER TAO FORMULATIONS ALSO AVAILABLE: TAO®-AC (Tao, analgesic, antihistaminic compound) capsules, bottles of 36. TAOMID® (Tao with Triple Sulfas)—tablets, bottles of 60. Oral Suspension—60 cc. bottles.

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Summary of 1960 MSMS Annual Session

(Continued from Page 1618)

3 . . . directed that "MSMS develop and carry out an alive, alert and dynamic program of civic participation in all proper political and legislative spheres to insure a continuation of the principles it believes to be in the best interests of the American public."

4 . . . recommended that the Michigan Legislature establish a "uniform healing arts registration and licensing act," and repeal the basic science law.

5 . . . recommended that an adjustment be made in the fee schedule of the Michigan Crippled Children Commission to conform with the Michigan Uniform Fee Schedule for Governmental Welfare Agencies.

* * *

On general health education with the public, the House:

1 . . . inaugurated the five-year Presidents Program to increase MSMS' efforts in the various fields of health to offer every citizen a greater chance for a better, healthier span of life.

2 . . . endorsed preschool and in-school visual screening programs, where the same are properly conducted.

3 . . . urged each county medical society to devote at least one of its meetings every three years exclusively to the subject of tuberculosis control.

4 . . . recommended that the educational campaign to control venereal disease be intensified.

* * *

On matters dealing with para medical and allied subjects, the House:

1 . . . endorsed the People-to-People (HOPE) Project.

2 . . . recommended an increase in nurse recruiting and nurses' salaries.

3 . . . expressed disfavor with the continuing encroachment of hospitals on the private practice of medicine.

* * *

On matters dealing with Blue Shield and prepayment plans generally, the House:

1 . . . adopted a new "Revised Statement of Principles on Prepaid Medical Care Insurance," replacing the 1957 version.

2 . . . directed that participation agreements in the M-75 contract between physicians and the state medical society be discontinued and that Blue Shield revert to its original participating agreement, entitled "Doctors Enrollment Application with Michigan Medical Service."

3 . . . recommended that proposed changes in the income ceiling or the scope of benefits in any insurance or prepayment contract be submitted to the House of Delegates for appropriate action.

4 . . . recommended to Blue Shield that "the M-75 contract be continued in its present form with changes to be made as necessary," and further that "the M-75 contract shall provide that where a participating physician has reason to believe that the combined earnings of a subscriber and working spouse are greater than the maximum income of the applicable contract then in force, the physician may at his discretion make a charge in excess of that provided in such contract, unless the subscriber furnishes evidence that the combined income of the subscriber and spouse is not in excess of the maximum income specified in the contract. Disputes shall be resolved by Blue Shield, whose decision shall be binding upon both parties."

5 . . . recommended that M-75 be continued and that a further study be made of a $6500 family income contract.

6 . . . disapproved recommended unit values of the M-65 contract, as proposed by the Medical Care Insurance Committee.

7 . . . requested Blue Shield to consider developing a new contract to protect the low income group with a basic policy, accompanied by optional "riders."

8 . . . dissolved the Councilor District Medical Care Insurance Committees and urged that suitable county committees be utilized for medical care insurance matters.

9 . . . requested Blue Shield to reconsider its present method of paying for surgical assistants.

10 . . . recommended changes in Blue Shield's procedures for electing its Board of Directors.

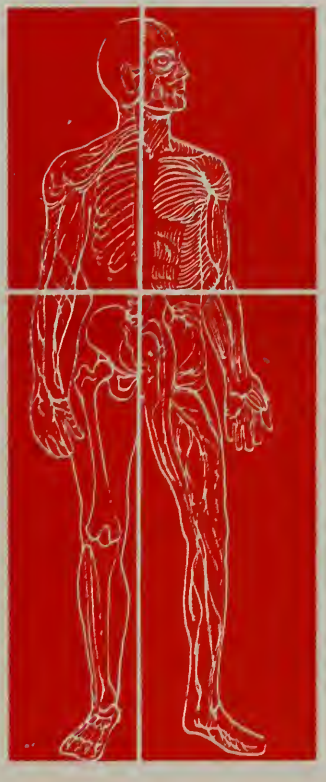
11 . . . recommended education of Blue Shield subscribers as to the high costs of utilization.

12 . . . reaffirmed its support and sponsorship of Blue Shield as a nonprofit organization in the public interest.

Open Heart Surgery

Experience with 360 Patients

Herbert Sloan, M.D.
James Mackenzie, M.D.
Aaron Stern, M.D.
Joan Sigmann, M.D.
Ann Arbor, Michigan



THREE HUNDRED SIXTY patients have been operated upon at the University Hospital for congenital and acquired cardiac lesions employing extracorporeal circulation. A rotating disc oxygenator has been used throughout this experience.[1] Heart-lung bypass has become a reliable, safe technique for correcting intracardiac abnormalities. The risk of open heart surgery is related almost entirely to the seriousness of the cardiac lesion rather than to the use of extracorporeal circulation.

Technique of Perfusion

The equipment for extracorporeal circulation* consists of receiving chambers, a rotating disc oxygenator, roller pumps for arterial perfusion and aspiration of blood from the heart, a heat exchanger, and a bubble trap (Figs. 1 and 2). Blood is removed from the body by gravity through catheters placed in the venae cavae. The oxygenated blood is returned to the body through a cannula in the femoral artery. Most perfusions are carried out with moderate whole-body hypothermia at esophageal temperatures of 28 to 30 degrees centigrade.[2] For more difficult operations (such as repair of tetralogy of Fallot) body temperature may be lowered to 20 degrees centigrade or below. The flow rates are sufficient to maintain a mixed venous oxygen saturation of at least 70 per cent. The mean blood pressure during perfusion is 80 to 100 mm. Hg. Fluothane is introduced into the oxygenator during the perfusion for anesthesia. A mixture of 98 per cent oxygen and 2 per cent carbon dioxide provides adequate oxygenation for the blood and helps maintain satisfactory acid-base balance.

Prior to perfusion 3 mgs. of heparin per kg. of body weight are injected into the circulation to prevent clotting and this is neutralized at the end of the perfusion with an equivalent amount of polybrene. Improvements in the technique of perfusion have allowed increasingly greater care to be devoted to the correction of intracardiac lesions. The time of perfusion has increased until most perfusions are between thirty minutes and one hour in length. Exposure of the heart is obtained through a median sternotomy incision almost routinely.

Careful monitoring of the physiologic events of the perfusion is considered essential. The electroencephalogram, electrocardiogram, venous pressure and arterial pressure are recorded throughout

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From the Departments of Surgery and Pediatrics, University of Michigan Medical School, Ann Arbor, Michigan.

Aided by grants from the Michigan Heart Association.

*Built by Edward A. Olson Company, Inc., Ashland, Mass.

the operation. Rectal and esophageal temperatures are obtained. During perfusion, arterial and mixed venous oxygen saturations are measured intermittently. Early in this series extensive studies of acid-base balance were carried out but are not now done routinely.

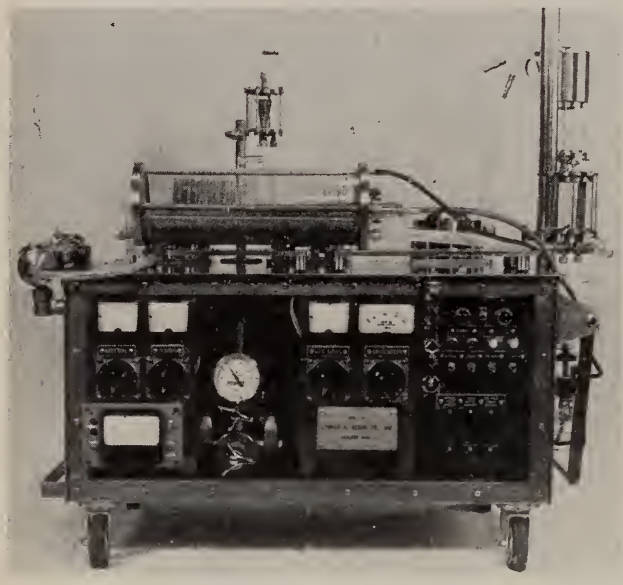

Fig. 1. Pump oxygenator for extracorporeal circulation.

The use of Fluothane in the oxygenator and the avoidance of muscle relaxants has speeded the postoperative response of these patients. Whole-body hypothermia controlled by a heat exchanger in the pump oxygenator has made exposure of cardiac defects easier and has maintained patients in better condition through the perfusion. Intermittent aortic occlusion aids exposure while cardioplegic agents have been completely abandoned.

Blood loss during operation is determined by measuring all blood aspirated and by weighing sponges. The amount of blood introduced into the extracorporeal circulation is measured accurately and the amount remaining at the end of the perfusion is again measured. These values, together with the amount of blood administered intravenously, allow an immediate estimate of the patient's loss and replacement. This method of determining blood balance has proved satisfactory and the patients are not weighed after operation.

Problems in the Care of Patients

Preoperative preparation of patients for operation is centered about the problem of establishing an accurate diagnosis. It is believed especially important that the surgeon have a clear idea of the exact anatomic defect present before operation is carried out. The patient is examined carefully for evidence of infection which would contraindicate operation. The clotting mechanism is evaluated and routine blood studies carried out. Only those patients with previous evidence of cardiac failure are digitalized prior to operation. Recent chest films are reviewed.

Following operation the care of the patient is intensified. Control of pulmonary secretions has been the major postoperative problem in our experience. Diligent attention to voluntary coughing and the liberal use of endotracheal suction have been of the greatest help in clearing retained secretions. Sharp limitation of fluid intake to 40 to 55 cc./kg. of body weight each day for the first forty-eight hours following operation has reduced the volume of pulmonary secretions in these patients. Blood lost from the chest into the thoracotomy jug has been carefully replaced.

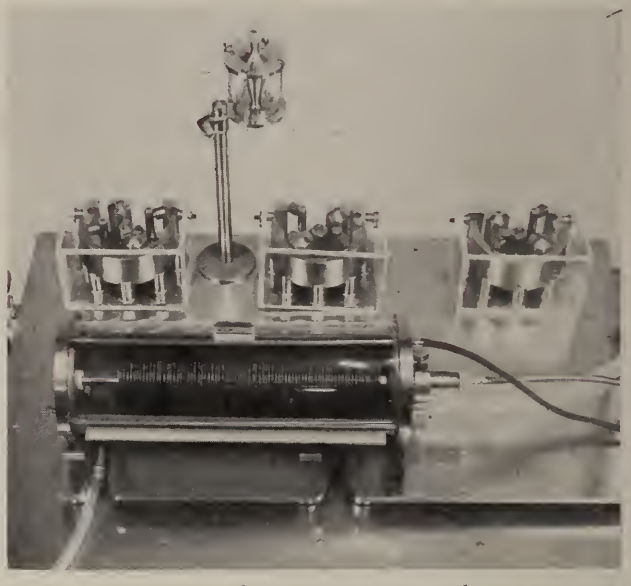

Fig. 2. Top view of pump oxygenator, showing rotating disc oxygenator and pumping heads.

Postoperative complications of importance have been relatively few. Some patients for twenty-four hours after operation have been mildly confused or have had hallucinations. For the most part these have been patients with ventricular septal defects and the cerebral symptoms were the result of trapping air in the left ventricle. Routine aspiration of the left ventricle following closure of ventricular septal defects has eliminated this problem. No patient has been discharged from the hospital with recognizable residual neurologic sequelae. Postoperative bleeding has been a rare problem and re-exploration for control of bleeding was necessary in five instances only. In three patients temporary renal shutdown was present. Postoperative infection has

not been seen in the last 200 patients operated upon. In only three patients was there persisting evidence of complete heart block. Temporary dissociation in the postoperative period was present in a number of patients but normal rhythm was restored within a few days. Other problems following operation have been related to difficulty in maintaining accurate approximation of the sternal halves and to diminished circulation in the femoral artery employed for perfusion.

Choice of Patients

It is our belief that the patient who has a congenital cardiac lesion which is producing symptoms or is capable of producing later trouble should have the defect repaired. The cardiac lesion must present an immediate or late danger which is greater than the risk of operation. It is desirable to investigate and correct these abnormalities between the ages of three and five years, before the child starts to school. In our hands it has proved safe to carry out open heart surgery at this age. The child does not enter school labeled a "cardiac" with attendant limitation of activity and psychologic trauma. More importantly, the earlier the defect can be corrected the greater chance the child will have to achieve his full growth potential.[3] It has been surprising to hear the comments of parents whose children have been operated upon for what was presumed to be an asymptomatic congenital cardiac lesion. Although many of these children have seemed normal, the parents have described enthusiastically the increased activity their children have shown following operation.

An additional reason for correcting ventricular septal defects is the danger of subacute bacterial endocarditis. Among approximately 200 children with ventricular septal defects whom we have followed and who have not had closure of the defect, there were seven children who developed bacterial endocarditis. Three of these patients died despite the use of antimicrobials. Two others had serious residual cardiac damage from their infection. One of these two children died following an attempt at repair of his cardiac defect. Only two of the patients recovered without further cardiac damage. It is agreed that a patient with a patent ductus arteriosus should have the ductus interrupted. This approach is acceptable because the mortality rate from operation for patent ductus arteriosus is low. As far as is known, there is no instance of subacute bacterial endarteritis at the site of a surgically-closed ductus arteriosus. We believe the same reasoning should be applied to most congenital cardiac defects, although the patients with closed septal defects have not been followed sufficiently long to say that a complicating bacterial endocarditis is impossible. The mortality rate for operation in uncomplicated congenital abnormalities of the heart has been 1.4 per cent.

It has seemed desirable to avoid operation where possible on children younger than two years of age. Perfusion has proved more difficult in these infants although increasing experience has made heart-lung bypass practicable for younger patients whose cardiac lesions require operation in order to save life. Operation has always been offered to the infant with a correctable cardiac lesion when it is believed that he will not survive without operation. Whenever possible this has been postponed until the child has grown to a more acceptable size. However, death has occurred in some patients waiting for operation, while correction of the defect has salvaged many of these infants. Most of these patients have been infants with ventricular septal defects, severe pulmonary hypertension, and heart failure.

Patients with severe pulmonary hypertension in whom there is a right-to-left shunt and in whom the systemic blood flow is greater than the pulmonary blood flow are not candidates for operation. The infant with tetralogy of Fallot who requires an operation is best treated by a shunt procedure. Complete correction of the tetralogy of Fallot can then be postponed until a later date.

The choice of patients for surgical treatment of acquired heart disease presents a greater problem. The majority of these patients have mitral or aortic valve lesions. There is a growing tendency to use extracorporeal circulation in operations upon all complicated mitral valve lesions, particularly when an element of mitral insufficiency is present. It is still our practice to employ the traditional closed approach in operations upon uncomplicated mitral stenosis. If a second operation for mitral valve disease is necessary it should be undertaken with the open technique. The treatment of mitral insufficiency requires the use of heart-lung bypass. All aortic valve lesions requiring operation are repaired with the aid of extracorporeal circulation. The addition of coronary perfusion during operations on the aortic valve has made careful, planned repair of aortic valve lesions possible.

While techniques for supporting the circulation and exposing the aortic and mitral valves are available, correction of acquired valve disease presents a much greater problem than correction of congenital cardiac lesions. It follows that the results of operations upon acquired heart disease have not been as dramatic as those in congenital heart disease. Despite this, the use

of heart-lung bypass has improved significantly the results of operation for acquired heart disease and continuing progress is being made.

Results

Three hundred sixty patients have undergone open heart surgery for correction of congenital and acquired cardiac lesions (Table I). The majority of the patients have been young children. Forty of the patients were two years of age or less. The smallest patient successfully perfused weighed 3.2 kg. and the largest 96 kg.

Fig. 3. V.B. 1 W.F. No. 920278. Ventricular defect with pulmonary hypertension: (A) before operation, March 26, 1959, and (B) after operation August 13, 1959; showing decrease in heart size and pulmonary vascularity following operation.

TABLE I. RESULTS OF OPEN HEART SURGERY
360 Patients

	Patients		Deaths	
Ventricular septal defect:		127		17
Without pulmonary hypertension	91		3*	
With pulmonary hypertension	36		14	
Pulmonary stenosis		58		1
Atrial septal defect		69		2
Tetralogy of Fallot		49		11
Aortic lesions		18		2
Mitral lesions		22		5
Miscellaneous		17		9
Totals		360		47

*One late death was not related to the cardiac defect.

Ventricular Septal Defects.—In 127 patients a ventricular septal defect was closed. Repair was customarily carried out by direct suture. Following closure of their defects most of the children had a spurt in growth and weight. Their activity level increased and many of the children developed a brighter and more outgoing personality. They were freed of recurrent lower respiratory tract infections. Chest films showed a decrease in heart size and in pulmonary vascularity (Fig. 3).

Ninety-one patients did not have serious pulmonary hypertension. Among these patients there were two early deaths and one late death. In one patient, the operative mortality was due to aortic regurgitation which had not been recognized before operation. In the second patient, death was due to problems with the perfusion which were a result of venous abnormalities interfering with proper cannulation. The late death occurred in an eleven-year-old boy who died two and one-half years following operation. He was free of cardiac symptoms and his death was the result of hydrocephalus. Postmortem examination showed the ventricular defect to be closed completely. Six patients have had reoperation for secondary closure of ventricular septal defects. A number of patients, most of them infants, have residual murmurs of uncertain significance.

Thirty-six patients had severe pulmonary hypertension with pulmonary artery pressures 75 per cent or more of the systemic pressure. Of these, twenty-two were two years of age or less. The highest mortality occurred in this group. Fourteen of the patients did not survive and eleven of thirty-six patients among these deaths were in patients less than two years of age. The problem of caring for the patient with serious pulmonary hypertension has presented a major challenge to the use of open heart surgery. Recent improved results are believed to be due to the use of the median sternotomy incision,[4] the avoidance of muscle relaxants, and the use of systemic hypothermia during perfusion. Tracheostomy has been employed following operation in many of the infants with pulmonary hypertension but its use is decreasing.

Atrial Septal Defects.—Atrial septal defects of the secundum type were repaired in sixty-nine patients (Fig. 4). The two deaths in this group occurred in

adult patients with severe pulmonary hypertension and evidence of a right-to-left shunt. The atrial defects were corrected by direct suture, except in a few adult patients with large defects which were closed with Teflon patches. Twelve patients had partial anomalous venous drainage from the right lung entering the right atrium. In eleven of these patients it was possible to repair the defect and direct the anomalous venous drainage into the left atrium. In a single patient a small upper lobe vein draining into the superior vena cava was allowed to remain uncorrected. Three patients had pulmonic stenosis as a less important associated lesion which was corrected at the same time.

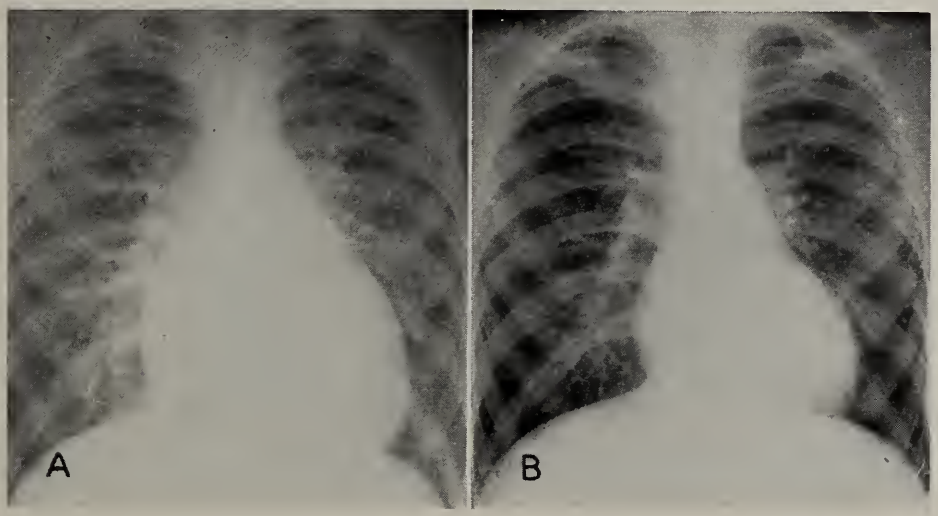

Fig. 4. W.B. 9 W.M. No. 879407. Atrial defect: (A) before operation, August 15, 1957, and (B) after operation, October 2, 1958; showing decrease in heart size and pulmonary vascularity following operation.

Preliminary palpation of the atrium frequently failed to disclose the extent and complexity of the lesions present. It was difficult to recognize by palpation the fenestrated and multiple defects. The use of heart-lung bypass has allowed careful closure of these lesions under direct vision. As much time as necessary is taken to obtain satisfactory closure. It is believed that this method of closing atrial defects is superior to both blind closure of these lesions and the brief periods of exposure afforded by hypothermia.[5]

Pulmonic Stenosis.—Pulmonary valve stenosis was corrected in fifty-five patients and isolated infundibular stenosis in three patients. One child was readmitted to the hospital following operation with a *Pseudomonas aeruginosa* endocarditis of the pulmonary valve and died after a prolonged hospital course. The child had been discharged from the hospital after an uneventful postoperative recovery but *Pseudomonas aeruginosa* was the organism found in the rare infections which occurred early in our experience and for this reason the operation must be implicated in this child's late death. In fifteen patients an atrial defect was associated with pulmonic stenosis and was corrected at the same time.

The pulmonary valve was exposed by an incision in the pulmonary artery above the valve. An attempt was made to construct a three-cusp valve by incising the stenotic valve along its commissures. Great care was taken to keep the line of incision in the commissures since incision into the valve leaflets has resulted in insufficiency of the valve. The incisions have been carried to the annulus of the valve and dilatation of the valve ring has been avoided recently since it, too, has produced insufficiency. Once more the use of extracorporeal circulation has allowed a planned, careful reconstruction of the pulmonary valve which is not afforded by techniques allowing brief periods of exposure.[6] Clinical improvement in these patients has often been dramatic and there has been no evidence of accompanying infundibular stenosis which required resection.[7] In none of these patients was there an unsuspected ventricular septal defect.

Tetralogy of Fallot.—Correction of tetralogy of Fallot was accomplished in forty-nine patients. The diagnosis of tetralogy was made when both pulmonary stenosis and a ventricular defect were present. At the present time the ventricular septal defects in these patients are closed with a patch of knitted Teflon. The infundibular stenosis usually present was resected as widely as possible and a rectangular patch of woven, crimped Teflon was used when necessary to achieve an adequate outflow tract. Successful operation in these patients

was followed by a loss of cyanosis and disappearance of clubbing and polycythemia. The children had significant increases in growth and weight. Their activity levels improved greatly. Chest films following operation showed an increase in pulmonary vascularity toward normal but no change in heart size (Fig. 5).

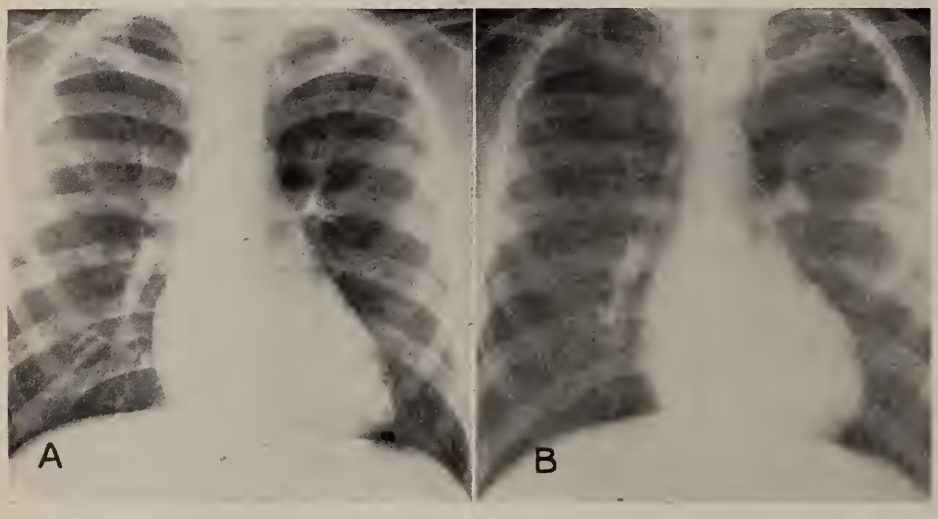

Fig. 5. E.N. 11 W.M. No. 920270. Tetralogy of Fallot: (A) before operation, October 15, 1959, and (B) after operation June 21, 1960; showing no change in heart size with complete correction of tetralogy.

Fig. 6. P.P. 2 W.M. No. 845938. Congenital mitral insufficiency: (A) before operation, June 12, 1958, and (B) after operation, March 24, 1960; showing marked decrease in heart size and pulmonary vascularity following operation.

Eleven of these patients died following operation. The majority of the deaths were the result of inability to create a satisfactory outflow tract from the right ventricle or were due to pulmonary arterial stenosis which could not be corrected. In the surviving patients the most serious problem has been persistence of the ventricular defect with a left-to-right shunt and pulmonary congestion following relief of the pulmonary stenosis. Improved results in patients operated upon recently have been due to the vastly better exposure afforded with perfusion under systemic hypothermia. Greater care in the closure of the ventricular septal defect and more adequate resection of the outflow tract have resulted in a more nearly normal heart for most of these patients. In nine of the patients there had been a previous shunt operation performed and two of these patients died following operation.

Aortic Valve Lesions.—Correction of congenital aortic stenosis was accomplished in ten patients of whom two had subaortic stenosis. There was one death in this group of patients. The surgical correction of acquired aortic valve lesions has been a much more difficult problem and clinical improvement following operation has been less satisfactory. Four patients with pure acquired aortic stenosis were operated upon and one of the patients died. In three patients attempts were made to correct aortic insufficiency and in one

patient a mixed lesion was present. The treatment of aortic insufficiency has been delayed until coronary perfusion has become feasible. The successful development of techniques which now allow long periods of uninterrupted visibility of the aortic valve will permit correction of many symptomatic aortic valve lesions.

Mitral Valve Lesions.—Correction of mitral valve abnormalities has been carried out in twenty-one patients with five deaths. The most gratifying group of patients were the children with congenital mitral insufficiency. All of these patients were improved following plication of the mitral annulus (Fig. 6). In one patient a cleft mitral valve was also sutured. Acquired mitral stenosis was corrected in seven patients with one death and mitral insufficiency in four patients with one death. In five patients with mixed mitral valve disease there were three deaths. The results in this group of patients with acquired mitral disease have been only moderately satisfactory.

Miscellaneous Lesions.—The remaining lesions were complicated and the mortality rate was high with nine deaths in seventeen patients operated upon. Many of the patients were infants and presented problems in repair which were insurmountable. This group includes five patients with septum primum defects or atrioventricular canals.

Summary

Three hundred sixty patients had correction of congenital or acquired cardiac defects. A safe, easily controlled extracorporeal circulation with a rotating disc oxygenator was employed for heart-lung bypass.

Ninety-one patients who had ventricular septal defects without pulmonary hypertension were operated upon with but two deaths. Fifty-eight patients underwent correction of pulmonic stenosis with one death. Among sixty-nine patients with secundum atrial defects there were two deaths, both of which were the result of severe pulmonary hypertension. The mortality rate following correction of uncomplicated congenital cardiac defects was 1.4 per cent.

Among the entire group of 360 patients, forty-seven died. The majority of the deaths in these patients, many of whom were infants, were due to (1) pulmonary hypertension and (2) complicated cardiac abnormalities.

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Infection and Immunity in Chronic Lymphocytic Leukemia

Over a period of five years, twenty-five of forty-two patients with chronic lymphocytic leukemia developed forty-six bacterial infections, of which seven were fatal. Hypogammaglobulinemia was found in twenty-three patients, normal gamma globulin in twelve patients, and hypergammaglobulinemia in one patient. A fair correlation was noted between the frequency of infection and hypogammaglobulinemia. Stimulations with typhoid, mumps, influenza, and diphtheria antigens were performed in twenty-four patients and thirteen controls. Both individually and as a group, the patients had considerably less ability to produce circulating antibodies than the controls.

There was a direct relationship between inability to produce circulating antibodies and bacterial infections. Isohemagglutinin titers were normal in all controls, but in only eight of the twenty-four patients. The failure to produce circulating antibodies appears to be a major deficit in host resistance in chronic lymphocytic leukemia.—*Archives of Internal Medicine*, October, 1960.

Present Status of the Surgical Treatment of Tetralogy of Fallot

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TETRALOGY of Fallot is a congenital cardiac malformation which is not uncommon. It is the most common of the cyanotic type of congenital heart diseases. The clinical features of the disease consist of marked cyanosis and the secondary signs of anoxia such as clubbing of the fingers and polycythemia. In some cases the heart has the characteristic boot shape by x-ray but this is not always true. The roentgenogram of the chest usually shows a heart of no particular enlargement with the pulmonary vasculature markedly decreased. Upon auscultation, there is a high-pitched systolic murmur over the whole precordium but loudest at about the second and third left intercostal spaces. The electrocardiogram shows right ventricle hypertrophy.

Pathologic anatomy consists of a marked obstruction to the outflow from the right ventricle together with a ventricular septal defect of considerable size in which the aortic valve cusps can be seen. This is the so-called dextro-position of the aorta, meaning that the origin of the aortic valve and aorta are farther to the right than normally present. Because of the high pressure in the right ventricle, which the obstruction to its outflow produces, there is some shunting of the right ventricle venous blood directly into the aorta which accounts to some extent for the cyanosis. There is an admixture of the right ventricle venous blood with the aortic outflow. The cyanosis, however, is due in a large part to the insufficient pulmonary blood flow since, with a shunt operation and the delivering of more blood to the lungs, the cyanosis is tremendously lessened. There is a great deal of variation in this pathologic anatomy. The degree of obstruction, its exact location in the outflow tract of the right ventricle, as well as the size of the interventricular septal defect and the overriding of the aorta are variable. The obstruction to the outflow from the right ventricle is usually below the normal pulmonary valve. However, occasionally one encounters a case in which the obstruction is at the position of the base of the pulmonary valve, there being no normal pulmonary valve. In such cases, it is indeed difficult to reconstruct a sufficient outflow tract without, at the same time, producing some pulmonary insufficiency. The interventricular defect also varies tremendously in size. In one instance after the infundibular blockage had been excised, it was seen that the ventricular septal defect was so large that almost a common ventricle was present. In such a case the two ventricles are then separated from each other by the insertion of a large Teflon patch.

This disease was brought into prominence by the pioneering work of Blalock and Taussig[1] who developed the shunt operation. This, more than any other single factor, has tremendously stimulated the interest in cardiac surgery and helped its present development.

The course of the disease without some form of treatment is indeed poor. Even though some patients may live to early adulthood, they are prone to develop profound atherosclerosis in early adulthood. The real danger from the disease is that of the polycythemia and increased hematocrit. — hence, the increased viscosity of the blood. These patients are prone to develop thromboses in various parts of the body. It is not uncommon for them to cough up blood. This in all probability is due to minor thromboses of the pulmonary vessels. Thrombosis of the cerebral arteries is often a cause of death.

In 1945, Blalock and Taussig[1] published their work on the surgical treatment by means of a shunt operation whereby a systemic artery is anastomosed to the

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This work, together with other Grants, has been supported by the Michigan Heart Association.

pulmonary artery thereby diverting more blood to the lungs for oxygenation. Soon thereafter, Potts[2] developed his aortic-pulmonary artery anastomosis whereby the aorta is directly anastomosed to the left pulmonary artery. These shunt operations relieve the cyanosis to a great degree and the secondary signs of anoxia such as clubbing and polycythemia disappear or largely disappear. Patients can breathe better and have a much better exercise tolerance. As time has gone on, however, it has become obvious that the long term results of these procedures are not as good as desired. Cardiac enlargement is usually present after several years. Also, as time has gone on, a certain number of these patients who have had shunt operations develop bacterial blood stream infections.

In the last few years since, with the better development of the open heart surgery using the heart-lung machine, more surgeons are turning to the open definitive technique for tetralogy of Fallot. This open technique has been particularly helped by the work of Lillehei[3] and by Kirklin.[4]

The open operation consists in putting the patient on the heart-lung bypass procedure. This is usually carried out by a sternum-splitting incision from the suprasternal notch to the xiphoid. The pericardium is exposed and opened thereby getting a good exposure

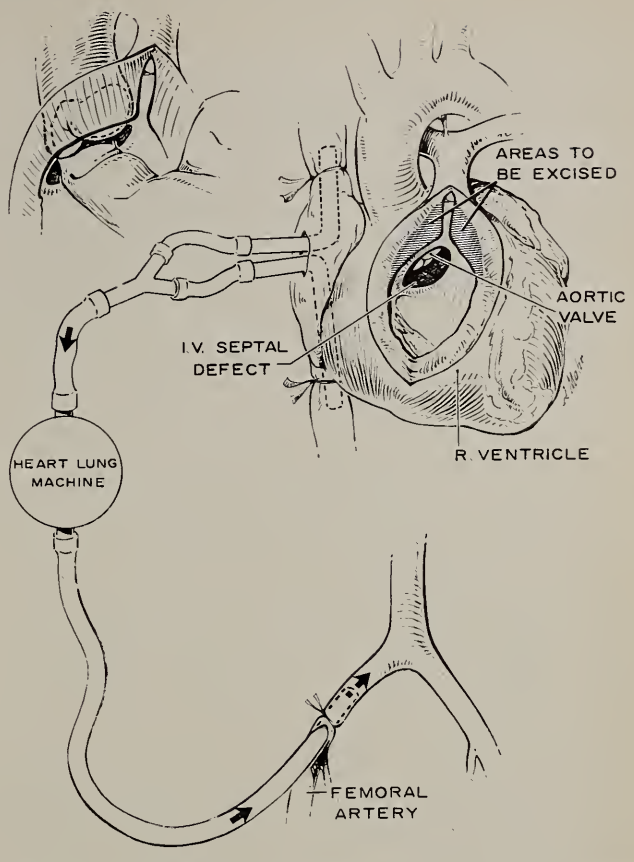

Fig. 1. Drawing showing obstruction to be removed and the interventricular septal defect.

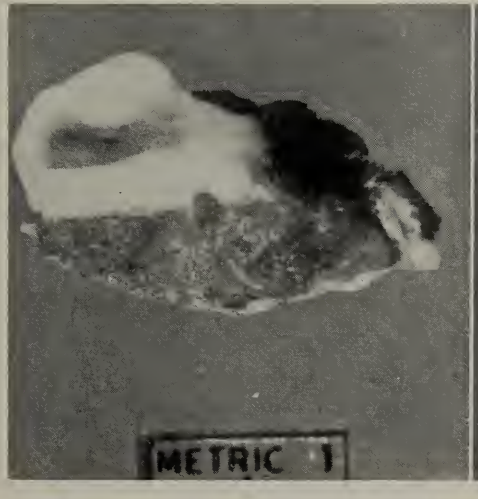

Fig. 2. Excision of infundibular blockage in one piece.

Fig. 3. Excision of infundibular blockage in several pieces.

of the heart but at the same time avoiding entrance to either pleural cavity. The sternum-splitting incision, developed by Julian,[5] has been a great boon not only in these cases but in all open heart cases. By this method the pleural cavities are not entered. This tremendously mimimizes the postoperative lung and pleural complications. The superior and inferior vena cava are cannulated and after tapes have been applied around them constricting the cavae to the cannulae, the entire return to the heart is then diverted to the heart-lung machine. The femoral artery is cannulated and the oxygenated blood from the heart-lung machine is returned to the patient by this artery. The Gibbon-Mayo type of heart-lung machine is employed. The

right ventricle is then opened, usually near the outflow tract, the infundibulum is incised and the ventricle is laid open. The divided portions of the infundibulum which are now on each ventricular wall are further excised to allow a sufficient outflow from the right ventricle (Fig. 1). Sometimes the obstruction can be removed in one piece, but more often is removed in pieces (Figs. 2 and 3). The interventricular septal defect which is usually a large one and through which the aortic cusps can be seen is then repaired either by direct suture but, if this defect is too large, a patch of material must be sutured over it. After suturing the right ventricle incision and shutting off the heart-lung machine, the blood now makes a normal circuit through the right heart into the lungs and back to the left heart. The two sides of the circulation are now separate as they normally should be and the outflow tract of the right ventricle is usually sufficient to allow enough blood to reach the lungs. Postoperatively, the high right ventricle pressure which was present is tremendously diminished and the hemodynamics, at least in some cases, may approach normal. More importantly, the cyanosis disappears along with the polycythemia and the clubbing of the fingers.

A few problems in open heart surgery are germane to this particular anomaly. In this type of a case, more than any other, there is a large amount of blood returning to the right ventricle during the bypass procedure. In some cases this may be almost as much as the total systemic circulation. The problem therefore in handling this large quantity of blood returning to the right side of the heart has been particularly difficult. Also the exact anatomic malformations are usually somewhat different and no two cases seem to be exactly alike. The infundibular stenosis varies a great deal. Also the dextro-position of the aortic valve varies considerably. One may not be able totally to relieve the obstruction in the right ventricle because of the fact that the aortic valve protrudes into the right ventricle considerably and to remove all the obstruction might lead to injury of the aortic cusps. Most surgeons prefer to stop the heart during this procedure because the corrections can be made perhaps faster and more precisely on the quiet heart. In my own experience, I prefer to leave the heart beating, if at all possible, and this usually can be accomplished. Occasionally, it has been necessary to temporarily occlude the base of the aorta for short periods of time.

Of all open heart surgery performed, the tetralogy type is the most difficult to do. This is because of the marked variable pathologic anatomy and also because it is easy to overperfuse and overload the lungs following the operation. In this regard, it is quite similar to the management of the shunt operation in that great care must be taken in order not to have an increased blood volume at the conclusion of the operation.

The author has been interested in this disease since 1945 when the shunt operation was first performed. A large number of patients have been operated upon over the years, many of whom are now young adults. It is of particular interest to note that three female patients who were operated upon by me in 1946 to 1947 have now married and have a total of four normal offspring.

There are in the country a large number of these patients who have had the shunt operation and who have been markedly relieved of their symptoms. However, as they get older they tend to become more cyanotic, to develop polycythemia and other complications such as bacterial infections. Some of these patients need reoperation.

By and large, the highest degree of success is in older children above five years of age. The young patient, from birth to three years old, presents a very severe problem. Some of these young children are in trouble and will not survive to an older age. Attacks of unconsciousness are of extremely serious import and usually lead to death. Some authorities are of the opinion that in this particular type of a case perhaps a shunt operation is indicated for the present with the more definitive correction to be done later on. At any rate any operation done on such a critically ill infant will carry considerable mortality.

Of particular interest in these cases is the apparent effect upon the heart of excising the infundibular stenosis. Excision of this heart muscle temporarily weakens the heart beat which can be seen with the beating heart. Because of this, most patients require digitalis in the postoperative period.

Originally with the open technique all surgeons who repaired these types of defects encountered considerable mortality. This was in the neighborhood of 25 to 30 per cent. However, as time has gone on, this figure has been markedly decreased and with more experience it probably will be further decreased.

My own experience deals with eighteen cases of this type of anomaly corrected by the open technique. All have been corrected on the beating heart except for two cases in which the root of the aorta was temporarily occluded for short periods of time. No

cardioplegic agent had been used in any case. Of these eighteen cases, two have died. One patient died because the interventricular septum opened approximately one week after the operation. Because the obstruction to the right ventricle had been relieved, a large amount of blood could easily pass to the lungs leading to rapid failure and death. The second case died because of overperfusion and overloading of the lungs postoperatively. The youngest patient was five years of age and the oldest eighteen. Two patients have had previous operations. All patients have essentially a normal arterial oxygen saturation.

Summary

A general review of the subject of tetralogy of Fallot is given. Some problems in the open operative correction are discussed. My own experience with eighteen cases of this defect is presented. Sixteen patients survived and are markedly improved.

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Measuring Blood Volume

An automatic device that permits rapid measurement of blood volume in patients was described to the Clinical Congress of the American College of Surgeons on October 4, 1960.

The machine is faster and more accurate than the manual techniques now in common use, said John A. Williams, M.D., F.A.C.S., and Jacob Fine, M.D., of Beth Israel Hospital and Harvard Medical School, Boston.

It eliminates the need for volumetric pipettings and human computations and can be run by technicians of ordinary competence, Dr. Williams said. He added:

"The instrumental technique is intended to supplant the empirical approximations of blood volume that too often are unreliable guides in the therapeutic management or the analysis of the fluid balance status of the patient."

Used clinically, the instrument has provided "accurate, on the spot" information for guiding proper transfusion treatments and intelligent patient care, Dr. Williams said.

The instrument was described as a new approach to the application of an old principle. Basically, this principle is quite simple: one injects into the blood stream a measured amount of "labeled" material, such as human blood protein "tagged" with a small amount of radioactive iodine. About ten minutes later, when the injected material has been mixed thoroughly in the circulation, a blood sample is taken and its radioactivity measured. Knowing the amount injected and the extent to which it has been diluted, one can readily calculate the volume of blood by which the material must have been diluted. It was pointed out by Dr. Williams that the usefulness of the isotope dilution principle has been seriously limited by technical problems of the laboratory procedures usually required. Because they are time-consuming (several hours) and relatively inaccurate, these procedures have remained limited largely to research.

Dr. Williams said that the new device, by contrast, provides measurements that are accurate to within a few per cent even after as many as five repeated determinations. Total time required is less than fifteen minutes. The result is automatically computed and the blood volume is shown at once on a meter dial. The syringes, needles and sample tubes are of the "throw-away" type, and the nuisance of cleaning special glassware is entirely avoided.

The Closure of Atrial Septal Defects

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THE PRESENT armamentarium of the cardiac surgeon gives us great latitude in closing intracardiac defects. The surgical history of this problem has spanned but a few short years and most of us have seen the transition from blind procedures[1-3] to open techniques utilizing hypothermia or cardiopulmonary bypass. We are summarizing here our experience with the closure of secundum defects in the atrial septum.

We recognize four main types of atrial septal defects: (1) patent foramen ovale, (2) ostium secundum, (3) ostium primum and, (4) the atrioventricularis communis.

It is well known that about 50 per cent of foramen ovales are probe patent at the end of a year and complete anatomic closure never occurs in about 30 per cent of people. The secundum defect is typically in the central portion of the septum. When this defect is located in one of its other favorite areas near the orifice of the superior vena cava, it is commonly associated with anomalous venous drainage.

The primum defect and the atrioventricularis communis are really different stages of an endocardial cushion defect. The primum defect is in the lower portion of the septum, the lower margin of the opening being valve tissue at the point of fusion of the mitral and tricuspid valves. The atrioventricularis communis defect has no fusion of valve tissue at the center of the atrioventricular canal. There is frequently an associated cleft of the mitral valve. In order that we may discuss comparable lesions, we are limiting our discussion to secundum defects.

Presentation of Cases

The history, physical, and radiologic findings of the atrial septal defect are exhaustively documented and it is not the purpose of this paper to re-state them. Our patients were quite typical. It will be noted in Table I that we had forty-eight secundum defects. These forty-eight patients had fifty surgical procedures performed representing a double operation in two cases. There were twenty-eight females and twenty males, twenty-eight of our patients were white and twenty were colored. Their age differential was from one to forty-four years. We had five patients in this older age group and this supports the clinical observation of the longevity of many of those patients. The necessity of a surgical procedure of sufficiently low mortality and morbidity to warrant surgical intervention is, therefore, obvious.

Operative Approaches

We believe our study to be particularly interesting because we have used hypothermia and cardiopulmonary bypass from the very beginning of our work in this field. Hypothermia (Table II) was used twenty-four times and cardiopulmonary bypass twenty-six times. We have always thought that on an active cardiac surgical service, circumstances would compel the acceptance of hypothermia as an important operative approach. There is no question that hypothermia is less time-consuming and that it is certainly cheaper in terms of blood, man power, and equipment. Furthermore, it has become evident that in terms of morbidity and mortality, we are compelled to continue the use of this method when time and money are no longer factors.

The advantages of cardiopulmonary bypass are well known and these include the relatively unlimited intracardiac period enabling the surgeon to correct complicated known pathology and to explore for and correct pathology previously unrecognized. Also, the heart surgeon is better able to handle problems such as pulmonary hypertension and cardiac arrhythmias. These great advantages have prompted us to set up a criteria for surgery under hypothermia attempting to select for surgery by this means only the uncomplicated pure secundum defect. These criteria are

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(1) a small heart, (2) a relatively small calculated shunt, (3) the cardiac catheter failing to enter an anomalous vein, and (4) an electrocardiogram which does not suggest a primum defect (left axis deviation with right bundle branch block). We are carefully selecting then, the near-normal, asymptomatic patient for closure under hypothermia.

We have used both the Kay-Cross machine and the Mayo modification of the Gibbon pump-oxygenator. The use of the different pump-oxygenators has been dictated by the institutions where the surgery was performed since the authors have no real preference for either machine providing they are being properly run by personnel who understand their individual advantages and disadvantages. Our perfusion time has varied

TABLE I. ATRIAL SECUNDUM DEFECTS

Type of Defect	Number
Total	48
Pure secundum defect	40
Secundum defect with anomalous venous drainage	6
Associated with left superior vena cava	5

from twelve to thirty minutes with an average of about twenty minutes. In the early phases of this study, we were perfusing at about 100 cc. per kilogram per minute but recently we have added a heat exchanger to our unit and have been combining cardiopulmonary bypass with mild hypothermia in the range of 31° to 32° C. Consequently, we have dropped our flow rates to approximately 50 cc. per kilogram per minute feeling that this has helped cut down on postoperative bleeding which has been our most troublesome postoperative complication. We have used cardiac arrest only occasionally in auricular defects. After using potassium, acetylcholine, and prolonged anoxia, we now prefer intermittent aortic occlusion.

The following are the important factors which we feel have contributed to our good results under hypothermia (Table II). Controlled temperature in the region of 31° to 32° C. which is stabile (or rising within this range before the auriculotomy) is very important. We have been careful not to exceed four to five minutes within the heart and have tried to get a good beat within six minutes. The anesthetists have tried to maintain a mild respiratory alkalosis believing that this tends to reduce the incidence of cardiac arrhythmias which we have had on two occasions in the hypothermia group. Ventricular fibrillation and a complete heart block have each occurred once. We have avoided all patients with pulmonary hypertension for they withstand this poorly under hypothermia[4] and we have been very careful to avoid air embolism which could lead to ventricular fibrillation. To avoid air, we have positioned the patient on the table with a slight elevation of the right side, the aorta has been

TABLE II. MORTALITY AND METHOD OF CLOSURE

Number	Method	Deaths
24	Hypothermia	0
26	Cardiopulmonary bypass	4

clamped during the intracardiac period, and prior to closing the defect we have made sure that the left side of the heart has been filled with blood or saline. Before closing the heart we have allowed the right heart to fill by releasing the superior vena caval tourniquet.

In both hypothermia and cardiopulmonary bypass we have opened only the right chest through the fourth interspace. Where we have found it necessary to control a persistent left superior vena cava, we have used a median stenotomy, although earlier in our surgical experience, we were using the transternal, bilateral, anterior thoracotomy route. We much prefer the single chest incision if we are reasonably certain that no other anomaly exists. Catheterizing, as a routine matter, through the left arm has enabled us preoperatively to be relatively sure of the presence or absence of a left superior vena cava. Establishing these perfusion and hypothermia techniques into a relatively fixed pattern, has contributed greatly to our constantly improving results.

Operative Findings

The size of the defects have ranged from 0.5 cm. to 10 cm. in diameter. The largest defect closed under hypothermia was 8 cm. Three of our patients had multiple holes in the atrial septum, the so-called Chiari network. Partial anomalous pulmonary venous drainage was found in six of our patients (12 per cent). Five patients had a persistent left superior vena cava (10 per cent). Two of our patients had pulmonary hypertension and both of these cases exhibited septal defects complicated with anomalous pulmonary venous drainage and left superior vena cava. All of our patients who had anomalous venous drainage had septal defects high in the septum near the orifice of the superior vena cava and the venous drainage entered the right auricle very close to this area. In two instances, the veins entered the right auricle so close to the superior vena cava that the superior vena cava had to be opened to facilitate the repair. The closure

of the defects themselves by either method of exposure is similar. We have used a running suture of continuous silk to close the defect. The suture line is then reinforced with interrupted sutures. Where large defects have existed on cardiopulmonary bypass, we have used Teflon patches when we have feared that undue tension would result by direct approximation of the edges. In redirecting the flow of anomalous pulmonary drainage we have, in three instances, rotated the defect in the septum over the top of the vein orifices. In three other instances, we have used a Teflon patch to redirect the flow from anomalous venous drainage through the septal defect. In instances where there have been multiple defects in the atrial septum, a Teflon patch was used as an onlay graft.

Results of Treatment

Early.—There have been four deaths in this series (Table II), three occurring in children, between the ages of four and fourteen years. Two of these three deaths were attributed to hypovolemia. Normal blood pressures were maintained for eight to ten hours, vasodilatation then occurred. Shock and sudden death followed. The third child was a boy who previously had had unsuccessful surgery by a blind technique. There were pulmonary and pericardial adhesions and their lysis resulted in bleeding and excessive manipulation of the heart. There was a left superior vena cava which also received the portal venous drainage, and mild pulmonary hypertension (50 mm. Hg). His death twenty-four hours after surgery, was accompanied by a rising venous and a falling arterial pressure—assumed to be on the basis of right heart failure, secondary to his pulmonary hypertension. The fourth death occurred with a forty-year-old man who had a cardiac arrest prior to being placed on the pump. Although he was hurriedly placed on cardiopulmonary bypass, his cannulization was complicated by the lack of a right superior vena cava and a left superior vena cava which drained into the right auricle via the coronary sinus.

Other than these deaths, there have been two instances of postoperative arrhythmias, nodal in type, which have spontaneously reverted after twenty-four to thirty-six hours. There was one instance of vascular insufficiency secondary to improperly closing the arteriotomy in the femoral vessel. The viability of the leg was maintained by paravertebral blocks. Atrophy resulted in the anterior tibial compartment with foot drop and difficulty in walking.

Late.—There have been no late deaths. The survivors have made excellent recoveries and are continuing to thrive. They are being clinically evaluated with roentgenograms, electrocardiograms, and frequent examinations in the clinic. There is no evidence of residual or recurrent shunt in any of these patients. Cardiac catheterization is not planned for any of these patients at the present time. The duration of follow-up has been from one to twenty months.

Reoperation has been necessary in two patients. On the first occasion, the patient was operated on under hypothermia but on palpation of the defect, it was felt to be too large to be closed by this method. The patient was closed and successfully reoperated using a pump-oxygenator. Many authors have said that this distressing situation could be avoided if all patients were pumped. We cannot argue with this reasoning but can point to our zero mortality and low morbidity under hypothermia and to our second case of reoperation which was done originally on the pump-oxygenator. This case serves to illustrate that no technique is infallible when performed by human hands. In this instance, the superior vena cava (along with anomalous pulmonary venous drainage) was turned into an interauricular septal defect. The patient was markedly improved but was cyanotic. After recatheterization and subsequent review of his clinical course, the correct diagnosis was made and this was verified at his completely corrective reoperation.

Comments

We must emphasize that work in this field requires diagnostic equipment which will establish an accurate diagnosis. This would include angiocardiograms, (both venous and selective), cardiac catheterization, and, by inference, competent clinical cardiologists and cardiophysiologists. Surgery, at least in our hands, has not reached the point where indiscriminate surgery relative to an inaccurate diagnosis is acceptable.[5]

Cardiac catheterization, properly interpreted, at this time is the diagnostic procedure of choice. An increase in O_2 content of 1.5 volume per cent across the cava is diagnostic. Angiography, especially if there is a selective injection under pressure into the right ventricle or pulmonary artery, is helpful. This gives indirect evidence of recirculation after the contrast media has cleared the right side of the heart. To see simultaneous opacification of right and left auricle is diagnostic.

Dye studies and the hydrogen ion catheter which are extremely helpful in picking up small shunts and in pinpointing such things as anomalous pulmonary venous drainage are just becoming available to us. Further refinements in diagnostic techniques which

will aid the surgeon in planning his surgery will undoubtedly decrease the mortality and morbidity associated with the closure of this defect. Addition of all available diagnostic aids to the armamentarium should, therefore, be the goal of the cardiac team. It has been emphasized that all of our deaths in this series have been while utilizing the pump. By the same token, we must admit that only the very best patients with the least amount of symptomatology were operated upon under hypothermia. We feel that this is the greatest factor in our mortality difference. There still remains, however, a marked difference in morbidity. Our pump cases have been complicated by substantial bleeding in the postoperative period which we have never seen following hypothermia and the marked difference in arrhythmias during and after surgery has been most striking. The arrhythmias have been markedly decreasing in frequency in the latter part of our series.

Factors which we feel contribute to mortality in this type of surgery are important and should be mentioned. Reoperation is one of these factors. From skin incision to closure, the surgical problems are compounded. Tissue plains are obliterated, bleeding is increased, manipulation with subsequent arrhythmias is greater, the danger of fibrillation is increased and postoperative bleeding is greater. We would handle a problem of this kind now by early preparation of the patient for use of the pump by cannulating the femoral artery and vein and doing our intrathoracic portion of the preparation for total bypass either with the patient on partial bypass or ready to be placed on partial bypass at any moment. Another factor contributing to mortality is the complexity of the lesion, as emphasized by one of the deaths in our series. Certainly patients who have a greatly enlarged heart with marked symptomatology represent a far more advanced stage of their disease and are a more serious risk. Many of these patients have been lost before going on bypass by the preparatory manipulations. In our own experience, cardiac arrhythmias subsequent to surgery have almost disappeared from the scene. Whether this is due to more accurate placement of sutures so as to avoid the S-A or A-V node or to better pumping, we are not prepared to say. The patient with marked pulmonary hypertension still remains a problem to all surgeons, however, and we are at this writing not satisfied that we can handle this problem with any degree of consistency. It is fortunate that the patient with the interauricular septal defect rarely develops a significant pulmonary hypertension whereas the patient with the interventricular septal defect so commonly does.[6]

In a more critical analysis of our four deaths, let us admit that none of them should have occurred. We are constantly changing and improving our techniques and our equipment. New pumps and oxygenators which will modestly fractionate the mortality with each improvement will be in constant development. However, the biggest contribution to our results has been a marked improvement in our handling of patients and their defects while on the pump and in the postoperative period. In the light of our current knowledge and experience we feel that the mortality associated with the closure of the secundum defect is negligible.

Summary and Conclusions

Our experience with fifty consecutive cases of secundum defects repaired under direct vision utilizing hypothermia and cardiopulmonary bypass are presented. There have been four postoperative deaths (8 per cent). With the use of these techniques, all cases have been operative. In every instance, a complete repair has been possible. There have been no recurrences to date. We feel that our mortality rate will significantly improve in this condition and that there is justification in recommending closure of all secundum defects.

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Diuretic Therapy of Congestive Heart Failure

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THE REPORT of Novello and Sprague[1] in 1957 on their work on the aromatic sulfonamides (Benzothiadiazines), marked a new era in diuretic therapy. Oral diuretics had been used and new ones sought for some time, but effective ones for the more severe cases of congestive failure were either toxic when used continuously or not quite potent enough to control the salt and water retention when used in a manner that would not produce side effects. The thiazides have proven themselves to be effective and relatively safe, non-toxic, diuretic drugs. They still do not measure up to the potency of the parenteral organomercurials, but the fact that they can be given continuously or on an interrupted basis, tailored to the patient's requirements, offsets their slightly less potent effect. Complete control of the average case of congestive heart failure can be attained, whereas the interrupted parenterally-used mercurials do not allow the same evenness of control since they cannot safely be given continuously nor as easily—usually necessitating a visit to the physician's office as compared to the patient being able to take his own diuretic orally. The avoidance of the extra expense, inconvenience, and the freedom from side effects has created a high patient-acceptance of these drugs.

The main purpose of diuretic drugs in heart failure is to alleviate the excessive sodium and water retention that has resulted from the complex physico-chemical alterations in the kidney, secondary to reduced myocardial function. They are used also in other edema states exhibiting this same problem. They should not be used to replace other basic therapies such as use of digitalis, reduced physical restrictions, and the reduction of salt in the diet. Their use then is adjunctive, never primary, therapy is improved, and more rapid improvement in the abnormal state takes place making their usefulness economical, and serving to make the management of congestive failure much easier. It is also possible with the newer oral diuretics to allow more salt intake in the diet in many cases than could heretofore be allowed so that their use improves the morale of an individual depressed because of the rigid dietary restriction of sodium chloride.

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Mode of Action of Diuretics

In order that any diuretic drug may act, improvement in glomerular filtration rate (GFR) must occur, and digitalization must be accomplished to produce this end. It must also be stated that cases of advanced myocardial disease with severe irreversible alteration of myocardial function, as seen in terminal heart congestive failure states, will not respond as well or at all to any diuretic therapy if the GFR is markedly reduced. This is the state of so-called "intractable" heart failure. There are special measures one may employ at this stage, and will be alluded to in this paper. Milder cases of salt and water retention always respond better to diuretics than the more advanced cases. Secondary improvement in GFR may also occur with the lowering of the cardiac fluid volume load due to the diuretic loss of retained salt and water.

Diuretics may act by necessitating increased water excretion in order to eliminate higher concentrations of non-threshold substances such as is seen with ammonium chloride and certain other inorganic salts (potassium chloride and nitrate, and even dilute hydrochloric acid). Urea itself formerly was employed to produce diuresis, but has almost totally been forgotten. At best, these non-threshold substances are weak diuretics, they must be employed in large doses, and their gastrointestinal side effects may preclude their use. Today ammonium chloride is most useful in potentiating the effectiveness of the mercurials and in correcting the hypochloremic alkalosis which occurs with the thiazides and mercurials. It is best employed in enteric-coated tablets in doses of one or two grams four times daily for three to four days prior to a mercurial, or following thiazide, therapy. These inorganic salts must be used with caution in patients who have severe hepatic or renal impairment, or both. Obviously urea should not be used if azotemia is present.

By far the most effective agents for diuretic purposes are those substances that cause a depression of the renal tubular re-absorption of sodium. These range from mild diuretic action to very potent effectiveness. These are the commonest drugs used today.

Classes of Compounds Causing Increased Sodium Excretion

The Xanthines

The most familiar drug of long use in the group is aminophyllin (theophylline ethylene diamine). It is a very weak diuretic and probably ineffectual orally in tolerated amounts. It is useful in rectal suppository form 0.5 gm. It is most active in doses of 250 to 500 mg. intravenously causing a rapid rise in cardiac output, increasing GFR, and resulting in increased sodium and water excretion. It is hazardous if given undiluted or administered rapidly. It is best employed by dilution with 50 to 150 ml. of 5 per cent dextrose solution and given over a thirty to sixty-minute period after the administration of a parenteral mercurial—or the mercurial may be combined in the infusion. This is very useful in cases refractory to the usual regimen. Most parenteral mercurial preparations include theophylline incorporated in the solution which serves as a potentiator of the mercurial. The bronchospasm of acute pulmonary edema is often quickly relieved by the intravenous use of the mercurial-aminophyllin "cocktail."

The Cytosines (Aminouracils)

These are isomers of the pyrimidine base, cytosine. Aminometradine (Mictine) and Aminoisometradine (Rolicton) are both similar to aminophylline in their renal sodium excretory effect. They are only weak diuretics, and quickly become ineffective. They usually produce no serious toxic effects, although they may cause annoying gastrointestinal disturbances if given in larger doses. They may be given in 200 to 400- mg. doses with meals like aminophylline. They serve best in cases of mild edema states or mild congestive heart failure when used for one to two days at a time, intermittently.

Carbonic Anhydrase Inhibitors

These drugs act through their specific effect on the renal tubular epithelium neutralizing carbonic anhydrase which is necessary in the re-absorptive action of sodium ions. The basic physiologic reaction is briefly this: Carbonic anhydrase, a zinc metallic enzyme complex, accelerates hydrogen ion production in the tubular epithelium, which secretes these into the renal tubule where they then are exchanged for $Na+$ which is then reabsorbed back into the renal tubule as $NaHCO_3$.

$$Na_2HPO_4 + H_2CO_3 — NaH_2PO_4 + NaHCO_3$$

By inhibiting hydrogen ion production, sodium reabsorption (increased in congestive failure) is impaired, and sodium loss together with water loss takes place—producing a diuretic effect. Other electrolyte changes take place in this diuretic effect. Potassium is excreted in moderate amounts in the urine, and bicarbonate is also lost resulting in an alkaline urine. A body cellular metabolic acidosis occurs which may be harmful if continuous, but beneficial if taken advantage of on a short-term basis. This metabolic acidosis can augment the effectiveness of a mercurial administered at this time, and is another way of utilizing these compounds in cases of more resistant heart failure. This metabolic acidosis can also be utilized in neutralizing the hypochloremic alkalosis produced by the mercurials and the thiazides in certain instances.

At best, when utilized alone as diuretics, these drugs quickly cause refractoriness to occur and cannot be given with effectiveness for longer than one to two days at a time because as soon as metabolic acidosis occurs, the excretion of $Na+$ and HCO_3 ceases owing to the necessity of their retention to help restore the acid-base relationship in the plasma or because of base depletion. They then have a limited usefulness, and it is necessary to have full knowledge of this situation in order to employ them effectively. They have been supplanted largely by the newer thiazide diuretics, but are still very useful in mild congestive failure or in cases intolerant to the mercurials and thiazides.

Ammonium Chloride should not be expected to augment their diuretic effectiveness, but may be utilized to hasten metabolic acidosis to aid in augmenting mercurial effectiveness and restoration of hypochloremic alkalosis.

Acetozolamide (Diamox®), Dosage Employed: 250 mg., one to three times daily at eight-hour intervals for one to two days at a time, allowing twenty-four to forty-eight hours rest periods or longer between courses.

Ethoxzolamide (Cardrase®): 125 mg. tablets, one to three times daily, in the same manner as Diamox®.

Dichlorphenamide (Daramide®): 25-50 mg. one to three times daily in the same manner as Diamox.®

Toxic Effects.—They are remarkably free of serious toxic side effects. Some patients experience nausea and annoying paresthesias with continuous use in

larger dosage. The drugs being closely related to the sulfonamides, skin eruptions and hematologic effects may occur in sensitive patients.

These drugs should not be employed when severe hepatic, renal, or diabetic situations are producing serious acidotic situations.

Relative Potency.—This may be variable from patient to patient but appear to be the same as the cytosines, but much weaker than the thiazides and the mercurials. The oral mercurial chlormerodrin (Neohydrin®) is slightly more effective, but cannot be given with the same frequency as some patients experience toxic effects from its use such as nausea and intestinal colic.

Organo-Mercurials

These compounds continue to be the mainstay in diuretic therapy. One of these (Meralluride) is the standard by which newer diuretics continue to be appraised and rated. They have been in use for many years, and our present-day materials are the improvement after many years of use and continuous research so that we now have very effective parenteral mercurials that can safely be given without toxic effects subcutaneously, intramuscularly, intravenously, and orally. Early compounds had to be given intravenously and caused serious irritation if leakage outside the vein occurred, and were also generally more toxic—yet they were very active. Oral mercurials, the most effective one being Chlormerodrin (Neohydrin®), have largely been supplanted by the more effective thiazides. Incorporation of theophylline into the molecular structure results in making the mercurial less toxic and enhancing its potency and absorption.

Mode of Action and Electrolyte Excretion Pattern.—These diuretics directly depress tubular function (particularly the re-absorption of sodium and potassium with chloride excretion paralleling sodium) resulting in increased water and solute excretion. No definite effect has been shown to indicate that water re-absorption has been impaired. It is probable that the mercurial action is exerted in both proximal and distal tubule since it is felt that sodium re-absorption is in the proximal tubule and potassium in the distal.

Factors Enhancing Mercurial Diuresis.—The exact mechanism whereby production of metabolic acidosis produces this effect is not known. Use of inorganic salts of strong acids, such as ammonium chloride or potassium nitrate will do this. The effect of pretreatment with a strong carbonic anhydrase inhibitor will do the same. Conversely alkalinizing compounds that cause metabolic alkalosis will inhibit mercurial effectiveness, and respiratory alkalosis will result in impaired diuretic response with mercurials. It is thought that the pH of the cell itself may be responsible for this effect.[2]

Greater responsiveness to mercurials has been noted to occur with restriction of the patient's activities after administration particularly at bed rest as compared to allowing the patient to remain ambulatory.[3]

Aminophyllin has long been known to be very effective in enhancing mercurial diuresis and its use has already been mentioned previously. The mode of action is two-fold: by increasing renal blood flow (RBF) and glomerular filtration rate (GFR), and by its inhibitory effect on the tubular re-absorption mechanisms of sodium.

Toxicity to Mercurials.—Despite the literature's revealing evidence of serious immediate effects resulting from administration of these substances, it is the writer's opinion after nearly twenty-five years of their use that they are not as dangerous as some might lead one to believe. Immediate fatalities have occurred very probably as the result of the mercurial itself, but most were with the intravenous route of administration, and probably the result of an induced cardiac arrhythmia. They are "speed reactions"—the result of too rapid administration. This can be avoided by dilution of the drug in a small infusion of 50-100 cc. of 5 per cent dextrose and giving this slowly intravenously over a fifteen- to twenty-minute period. A favorite potentiating drug is aminophyllin, when added in the amount of 0.25 gm., especially in cases of refractory heart failure. It is probably unnecessary to use the intravenous route very often in the routine management of congestive heart failure.

Occasionally one sees a patient who develops urticaria or dermatitis (more frequently). Changing over to another mercurial compound usually results in better tolerance.

Oral mercury given frequently in large amounts can produce increased salivation and stomatitis. It practically never occurs if rest periods are instituted between courses. Nausea, gastrointestinal colic may also occur with this form of mercurial therapy.

Most toxicity to these drug is related to their frequent use in cases of more severe heart failure and the resultant electrolyte depletion patterns—hypochloremic alkalosis (low plasma chlorides and high bicarbonate) (CO_2). More rarely the "low-salt syndrome" with depletion of plasma sodium, chloride, and

a low bicarbonate with azotemia results. Replacement of chlorides by ammonium chloride quickly alters the hypochloremic state, while salt replacement may aid the "low-salt syndrome." Care must be used in differentiating the hypotonic "water-dilution syndrome" from the latter condition.

Dosage and Use.—The parenteral mercurials should be reserved for use in cases of acute heart failure or the more severe cases—those that respond less well to the other oral diuretic drugs. If rapid action is not required of a potent nature, most moderate and mild cases of cardiac failure can be controlled adequately on oral therapy now.

The oral mercurial, Chlormerodrin (Neohydrin®), can be used in cases not responsive or sensitive to the thiazides. Each tablet contains approximately 10 mg. of organically combined Hg and usual dosage is four to eight tablets daily, given for one to three or five days with short rest periods between courses.

When using parenteral materials (most contain approximately 39 to 40 mg. of organically combined Hg per cc.) the dosage must be adjusted to the patient's needs. Usually these are given once daily for short periods of one to three days; then changing to once or twice weekly in doses of 1 or 2 cc.,[3] subcutaneously or intramuscularly. Commonly available forms are:

Meralluride (Mercuhydrin®)—for intramuscular or intravenous and subcutaneous use.

Mercaptomerin (Thiomerin®)—for subcutaneous, intramuscular, or intravenous use.

Merethoxylline procaine (Dicurin procaine)—for intramuscular or deep subcutaneous administration.

Mercurophylline (Mercuthanzin)—available as tablets 0.1 gm. and ampules for intravenous use.

Mersalyl and Theophylline (Salyrgan)—for intramuscular and intravenous use.

Mercumatilin (Cumertilin)—available as tablets each containing 20 mg. of organic Hg—dosage one to two tablets once or twice daily. Solution for intramuscular injections.

The Thiazides (Benzothiadiazines)

This class of recently introduced diuretic drugs has caused greater interest in the therapy of edema states than any other diuretic compounds. This is largely because of their effectiveness on oral administration and general freedom of toxicity. This has shifted the emphasis from parenteral mercury in the therapy of cardiac failure which previously had been the mainstay of treatment. Since the first of these became available (Chlorothiazide), many new ones of increased potency on a milligram basis, have been introduced to the medical profession. All of these thiazides are highly effective and potent diuretic agents. In the author's opinion, however, none of the newer ones are exceptionally more potent than chlorothiazide, but may offer advantages that under certain circumstances make them more desirable (electrolyte excretion patterns). These drugs closely approximate mercurial potency, but do not exceed it.

These drugs are continuously (repetitively) active and effective as long as available excess sodium stores are present for excretion. They are well tolerated, compare favorably to the parenteral mercurials, but are somewhat less effective. They are far more potent than any other oral agents previously available, their toxicity is minor, and they are economical to use. This has resulted in easier and more even control of the congestive failure state.

Mode and Site of Action.—These drugs resemble the mercurials in their effects and electrolyte excretion patterns. Sodium and chloride are excreted in large amounts with potassium excretion occurring in relatively lesser amounts. They also produce a reduced uric acid excretion. After prolonged and heavy dosage, hypochloremic alkalosis may occur under certain circumstances. When this occurs, effectiveness begins to fall off until their action ceases after sodium depletion occurs.

The proximal renal tubule probably represents the chief site of action where depression of sodium reabsorption occurs, although the distal tubule seems similarly effected due to the potassium excretory effects produced.

Toxic Effects.—These are not common directly due to the effects of the drugs on various organ systems. Pharmacologic toxic effects may occur more frequently, but are preventable (electrolyte depletion effects). Skin rashes appear similar to those seen with the sulfonamides, gastrointestinal reactions are uncommon, and hematologic disorders extremely rare. Hepatatoxic injury has been reported,[4] and the writer has had a case which exhibited jaundice and other serious effects. These latter must be extremely rare; no new reports seem to have been published.

The common indirect toxic effects are the results of their pharmacologic actions: hypochloremic alkalosis (discussed under the mercurials); hyponatremia or hypokalemia, or both. Hyperuricemia occurs frequently, and may be the source of real trouble in

hyperuricemic patients either aggravating or precipitating an attack of gout in a quiescent or latent case.

Hypokalemia is more common with these drugs than with any other diuretic owing to excessive potassium loss from prolonged and continuous administration. Greater loss of potassium occurs in cases of advanced heart failure for several reasons. These cases are often in electrolyte depletion states from long periods of diuretic therapy. Secondary aldosteronism may be contributing to potassium wasting, and severe cardiac cirrhosis may be producing potassium depletion especially if ascites is present. The use of the thiazides will then aggravate this state. The real significance of hypokalemia becomes manifest in these circumstances by the sudden appearance of digitalis intoxication with attendant cardiac arrhythmias especially ventricular and auricular premature systoles, varying degrees of conduction disturbances, ectopic rhythms, and particularly paroxysmal atrial tachycardia with block. While these may occur in any stage of heart failure they are most common in the advanced congestive failure state, and then indicate a serious prognostic outlook. Any patient taking these drugs who is also digitalized, suddenly developing unusual arrhythmias, should be suspected of hypokalemia even if serum potassium levels are not abnormally low. Both drugs should be temporarily stopped, and supplemental potassium given until the effects can be evaluated. Where continuous thiazide administration is used in heavy dosage, supplemental potassium should be taken in the diet and in the form of potassium chloride to offset these losses. In certain instances a reduction in the size of the maintenance dose of digitalis should be undertaken if intoxication has occurred and continued use of thiazides is necessary.

Periodic electrolyte determinations of serum sodium, potassium, chlorides, and HCO_3 should be made when continuous use of these diuretics is undertaken. Refractoriness to these drugs may signify electrolyte dysequilibria, and changing over to mercurial therapy may only worsen the problem.

The "low-salt syndrome" and dilutional hyponatremia are usually the by-product of the use of diuretics in the case of advanced myocardial disease with its depleted and deranged cellular electrolyte metabolism. Thiazide therapy is no exception in this case.

In cases of advanced liver and kidney disease where depletion of sodium and potassium may exist, aggravation of these conditions can be expected to occur with thiazides as with mercurials; caution must be exercised with their use. In primary or advanced secondary aldosteronism the excessive potassium loss makes the use of thiazides hazardous if not contraindicated. Where steroid therapy is being given extreme care in the use of these diuretics must be taken to avoid hypokalemia.

Administration.—While these drugs are primarily given orally they may be used parenterally. Their duration of action is shorter parenterally so little advantage is gained, and a parenteral mercurial may as well be substituted under these circumstances.

Since responsiveness will vary from patient to patient dependent upon individual requirements and especially the stage of congestive failure, individual dosage adjustment is necessary. It is very important to give the smallest dose, over the shortest period of time, and as infrequently as possible to maintain a stable state of greatest improvement in any given case of congestive failure. If compensation is re-established at a given weight level, and this weight can be maintained under the above circumstances, an ideal program is achieved.

These drugs may be used conjunctively with mercurials for greater diuretic effect. Ammonium chloride may be used with them, and assists in preventing hypochloremia. It probably may not potentiate their effect. These drugs when combined with antagonists of aldosterone are more effective in the therapy of edema states associated with liver disease and the more refractory cases of congestive heart failure.

Most of the thiazides listed below are more effective if given several times daily but once daily may prove effective enough in some cases. One or two days a week may be enough or three consecutive days, but in more resistant cases daily administration is essential for control. One of the newer thiazides (Methyclothiazide—Enduron®) appears effective for single-dose therapy for twenty-four hours since its duration of action seems somewhat more prolonged.

In selecting one of these compounds for use some generalities as far as pharmacologic effects may be mentioned. Basically the chlorothiazide is an excellent material, and in our opinion is not exceeded by any of the newer ones despite the claims for them. The newer ones do offer minor advantages. The trifluoromethyl forms, Flumethiazide (Ademol) and hydroflumethiazide (Diademol and Saluron), probably cause slightly less potassium excretion. Hydrochlorothiazide produces a slightly greater chloruresis and kaluresis than chlorothiazide. Benzothiazide (Naturetin) is more potent on a milligram basis than the preceding thiazides and its chloruretic effect is about equal

to its sodium excretion. Potassium losses are only slightly less than the others. Trichlormethiazide (Naqua) and Methyclothiazide (Enduron) are about equal in potency on a milligram basis. The latter drug does seem to have a more prolonged diuretic effectiveness when given in a single dose.

Currently available thiazide drugs, together with their average effective daily dose range, are as follows:

Chlorothiazide (Diuril), 250 mg. to 2000 mg. in divided doses (b.i.d.).

Hydrochlorothiazide (Hydrodiuril, Oretic, Esidrix), 25 mg. to 200 mg. in divided doses (b.i.d.).

Flumethiazide (Ademol), 200 mg. to 2000 mg. in divided doses (b.i.d.).

Hydroflumethiazide (Diademol, Saluron), 25 mg. to 200 mg. in divided doses (b.i.d.).

Benzothiazide (Naturetin), 2.5 mg. to 15 mg. in divided doses (b.i.d.).

Trichlormethiazide (Naqua), 2 mg. to 16 mg. in divided doses or single dose.

Methyclothiazide (Enduron), 2.5 mg. to 10 mg., once daily recommended.

Phthalimidine

Phthalimidine-Chlorthalidone (Hygroton®) a newcomer to the diuretic field derived from the sulfonamides like the thiazides, but having an additional phthalimidine ring incorporated into the basic thiazide-like ring. Its saluretic action is similar to the benzothiadiazines, but several important features are noted. Sodium-to-potassium excretion ratios are high, indicating low potassium loss. Its action is exceptionally prolonged—extending to forty-eight hours or longer in some cases. It is well tolerated and exhibits no more toxicity than any of the other oral diuretics.

Dosage is unique in that it may be administered once daily on alternate days because of its prolonged action. Fifty to one-hundred milligrams is the usual initial dose, to be increased as necessary to 150 to 200 mgms.

Steroids, Spirolactones and Refractoriness

Cases refractory to the usual diuretics sometimes become responsive after a course of seven to ten days of corticosteroids. The newer drugs such as prednisone, prednisolone, and triamcinolone have all seemed to be satisfactory. Correction of factors that contribute to refractoriness should be done first—such as adequately digitalizing, replacement of electrolyte depletion, and removal of serous cavity effusions (particularly ascites). Combinations of thiazides and mercurials with theophylline probably should first be tried. Triamcinolone has seemed to work very well in some of these refractory cases; natriuresis is augmented rather than reduced which occurs with some of the other adrenal corticosteroids.

Refractoriness is not always a factor of sodium retention alone. When severe myocardial disease is present cardiac output may have fallen to such critical levels that glomerular filtration cannot occur and under these circumstances no diuretic will be able to work. Other factors are also brought into activity that may play a heavy part in further sodium and water retention at this stage, namely, impaired liver function with higher circulating levels of other body steroids that cause water-sodium retention. Normally the liver breaks down excess steroids, particularly estrogens and antidiuretic-hormone (ADH). The latter probably acts further to produce greater water retention until the extreme over-hydration state of hypotonicity ("water intoxication," sodium dilution syndrome) occurs.

Spirolactones (aldosterone antagonists) have been employed with some success in these states especially if there is a high degree of secondary aldosteronism. They should be used for greatest effectiveness in combination with a thiazide or a parenteral mercurial, or both. It appears to be the last resort one can make. These drugs cannot be expected to produce dramatic results in every case.

Summary

The stepwise advancement in the treatment of congestive heart failure allows the use of various diuretic materials. One can select a drug to fit almost every stage and expect reasonable success. Combinations of these agents also may give better response under certain conditions. The natural history of the abnormal pathologic physiology involved in congestive heart failure makes possible the proper selection of a diuretic. Diuretic drugs should be continuously evaluated in order to obtain the greatest benefits from their use.

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Relationship of the Initial Attack of Rheumatic Fever in Three Children to Previous Positive Streptococcal Throat Cultures

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THERE IS much evidence that a relationship exists between attacks of rheumatic fever and a group A beta hemolytic streptococcal infection occurring within the previous forty-five days.

The problem with which this paper is concerned is whether streptococcal infections occurring prior to this forty-five-day period alter the susceptibility of those experiencing them to rheumatic fever. Rammelkamp summarizes the data supporting the importance of previous streptococcal experience in rheumatic fever in the following paragraph.

> Another factor which may alter the susceptibility to rheumatic fever is past infection with the group A streptococcus. Thus, it is possible that repeated infections, properly spaced, may alter susceptibility, but data establishing this point are not conclusive. For example, rheumatic fever is rarely observed under the age of four, but there is reason to believe that streptococcal infections occur in this age group. It was formerly held that increased susceptibility was also induced by inheritance, since multiple infections were observed in families. However . . . when siblings of rheumatic subjects or offspring of rheumatic parents are removed from their home environment and then become infected with group A streptococci the attack rate of rheumatic fever is not increased. It seems possible that some explanation other than inherited susceptibility is responsible for familial concentrations of rheumatic fever. Perhaps some environmental factor contributes to the number of streptococcal infections occurring in these families.[1]

This present study relates a higher-than-normal incidence of positive beta hemolytic streptococcus cultures over a two-year period to initial attacks of rheumatic fever in three children in a statistically significant manner. This relationship provides direct evidence for the statement in the previous paragraph that past infection with group A streptococcus may alter the susceptibility to rheumatic fever.

In the fall of 1956 and continuing through the spring of 1958 a program was established in the Lowell Public Schools with the purpose of studying the streptococcal carrier rate. The school had an enrollment of over 1000 students in kindergarten through the twelfth grade. Largely because of the difficulty in securing the co-operation of the students in the upper grades, the studies were confined to the pupils in the kindergarten through the sixth grade whose parents could be interviewed by the school nurse who then explained the program and had a permission slip signed. Over-all participation on this basis reached 95 per cent at the end of the first year and remained at about that level throughout the second year.

The school nurse cultured the throats of the participating students four times during each school year usually taking three weeks in each period to cover all the seven grades. Dry swabs were used to culture the throats and these were then taken to the laboratory usually in less than four hours. The swabs were then plated directly onto sheep blood agar plates which were then incubated and read the following day. Inasmuch as these cultures were taken only when the pupils were well enough to attend school and were taken at greater than one-month intervals throughout the school year, the positive cultures represent, primarily, the carrier state or subclinical infections. Table I summarizes the results of the cultures taken on the 403 pupils who had at least six cultures taken during the two school-year periods when there was a maximum of eight routine cultures taken. The 177 pupils with less than six cultures were eliminated from the table because they were followed for too short a time or with insufficient regularity.

The data of Table I is converted into the number of pupils falling into each of ten percentage ranges when the per cent of positive throat cultures compared to the total number of throat cultures taken is calculated. (Table II).

Initial attacks of rheumatic fever occurred in three pupils during the spring of 1958. The clinical data

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The laboratory work for this study was done by the Grand Rapids Branch of the Michigan Department of Health Laboratories.

on these three children and a record of their previous streptococcal history is summarized here—utilizing data taken from their hospital and physician's records added to that of the school record.

Case 1.—This eight-year-old white girl was admitted to Blodgett Memorial Hospital June 6, 1958, with a history of increasing fatigue, pallor, arthralgia, and fever for three weeks. A systolic murmur over the apex was first heard on May 31, 1958, but increased markedly in intensity and duration over the next week; therefore, the patient was admitted with the diagnosis of active rheumatic fever with carditis. Antistreptolysin O (ASO) titer was 1250 Todd units; C-reactive protein was positive; white blood count was 9,700 per cu. mm. with 72 per cent segmented neutrophiles, 2 per cent monocytes, 2 per cent eosinophiles, 22 per cent lymphocytes, and 2 per cent basophiles. Hemoglobin was 11.5 gm. and hematocrit 36 per cent. Ten days before admission sedimentation rate was 55 mm. per hour (Wintrobe, uncorrected). Electrocardiogram showed a P-R interval of 0.18 sec. and an auricular and ventricular rate of 100. The Q-T interval was 0.32 sec. and the QT_c was 0.39 sec. The chest roentgenogram appeared normal. The patient showed a good symptomatic response to prednisone therapy started at 30 mg. daily; however, the coarse, grade III systolic murmur over the apex and transmitted into the axilla was unchanged.

TABLE I. POSITIVE BETA HEMOLYTIC STREPTOCOCCAL THROAT CULTURES COMPARED WITH TOTAL NUMBER OF THROAT CULTURES (Two School Years, 1956-1958)

Number of Students Having a Given Number of Positive Cultures	Number of Cultures for Each Group of Students		
	Six	Seven	Eight
0	18	70	107
1	10	14	65
2	5	8	36
3	3	5	34*
4		2	11**
5			9
6			3
7			1
8			2

*Case one and two fell in this group.
**Case three fell in this group.

TABLE II. PER CENT OF POSITIVE CULTURES COMPARED TO TOTAL NUMBER

Cultures Positive (Per Cent)	Number of Pupils	Percentage of Pupils
0-10	195	48.4
11-20	89	22.1
21-30	44	10.9
31-40	39	9.7*
41-50	19	4.7**
51-60	2	0.5
61-70	9	2.2
71-80	3	0.8
81-90	1	0.2
91-100	2	0.5
Total	403	100.0

*Case one and two fell in this group.
**Case three fell in this group.

TABLE III. SUMMARY OF FAMILY INVOLVEMENT (Case 1, 1955-1958)

	Father	Mother	Patient	Sister (Aged 7)	Sister (Aged 5)
1955					
Feb. 23			+ Clin-O Pen		
1956					
Aug. 18			+ Clin-O Pen		
Sept.			+ Cul	+ Cul	
Nov.	− Cul	− Cul	− Cul	+ Cul	− Cul
Dec. 1			+ Cul	− Cul	
Dec. 3			+ Clin-Bic		
Dec. 6				+ Clin-Bic	
1957					
March	+ Cul	− Cul	+ Cul	+ Cul	− Cul
May	− Cul	− Cul	− Cul	+ Cul	− Cul
Sept.			+ Cul	− Cul	− Cul
Oct.	− Cul	− Cul	+ Cul	+ Cul	− Cul
Oct. 23	Bic	Bic	Bic	Bic	Bic
Nov.			− Cul	− Cul	− Cul
1958					
Jan. 5			− Cul-O Pen (Prophylact.)	+ Clin-Bic	
Jan.	− Cul	− Cul-	− Cul	− Cul	
March			− Cul	− Cul	− Cul
Apr. 1					+ Clin-Bic
May	− Cul	− Cul	− Cul	− Cul	− Cul
May 5		+ Clin-Bic			
May 27			− Cul		
June 22		+ Clin-Bic			
		+ Cul			

− Cul indicates negative throat culture.
+ Cul indicates positive throat culture.
O Pen indicates oral penicillin G, 200,000 units t.i.d. for ten days.
Bic indicates benzathine penicillin G, 600,000 to 1,200,000 units given intramuscularly.
+ Clin indicates exudative tonsillitis or scarlet fever.

Because of the extensive involvement of the entire family of this patient with streptococcal infections over a three-year period prior to the patient's onset of rheumatic fever, this material is summarized in Table III. Of further interest is the effort made on October 23, 1957, to interrupt the repeated infections by treating the entire family simultaneously with

benzathine penicillin G intramuscularly in amounts of 600,000 units for the children, and 1,200,000 units for the adults. Moreover, this history of an entire family gives additional support to the conclusion that repeated prior infections with streptococcus affect the individual in such a manner as to predispose him to the initial attack of rheumatic fever. It is also of interest to note that the patient had six negative throat cultures and no positive throat cultures in the seven months following her prophylactic benzathine penicillin injection in spite of numerous clinical streptococcal infections in the family during that time. With the high ASO titre it is possible that she could have been carrying streptococcal organisms in other areas than the oropharynx or tonsils or that some cultures gave false negative readings because of technical reasons. The high ASO titre would suggest more recent streptococcal experience than is given in culture history.

Case 2.—This eight-year-old white girl had been well up until the second week of May, 1958, at which time the mother noted that the child was dropping objects and was unable to sit still while eating. On May 21, 1958, she had an examination for a persistent cough and upper respiratory infection and was complaining at this time of pain in the right scapular region. The physical examination at this time revealed no abnormality but a urine examination showed four to six red blood cells per high-power field in a centrifuged specimen. The patient was started on Erythromycin 100 mg. q.i.d. for a five-day period with the tentative diagnosis of an early pneumonitis. By the first week of June she began to fall frequently while standing or trying to walk and began typical choreiform movements of the arms and facial muscles. Her urine had cleared at this time and a throat swab was negative. There were no abnormal cardiac findings at any time. This child had typical Sydenham's Chorea which responded fairly rapidly to bed rest, aspirin, and use of tranquilizers.

Her previous record of throat cultures for beta hemolytic streptococcus taken from the school records and including an extra culture in April, 1957, was:

1956	
October	Negative
December	Negative
1957	
March	Positive
April	Positive
May	Positive
September	Negative
November	Negative
1958	
February	Positive
April	Negative

Case 3.—This seven-year-old white girl had a history of painful knees and hips, and occasionally elbows and wrists over the past year. Five months before admission she had a flareup in pains in the knees with negative roentgenograms of knees and a sedimentation rate of 13 mm. per hour (Wintrobe, uncorrected). She had no fever at that time. The episode had begun one week before admission with heavy purulent rhinitis and postnasal drainage, oral temperature of 102° C., and stomachache. She was placed on oral penicillin G, 250,000 units t.i.d. which was continued until admission to Blodgett Memorial Hospital on June 12, 1958. The mother also developed an exudate tonsillitis at this time. No throat cultures were taken then, unfortunately, to confirm the clinical impression of acute streptococcal infections. The girl then developed low backache and leg and ankle pain. On the day before admission she developed a swollen, warm, red, very tender left ankle and painful right hip which resisted abduction and external rotation.

Physical examination at time of admission revealed a subsiding pharyngitis, non-tender but enlarged cervical lymph nodes and joints as described. Roentgenograms of the pelvis, knees, and ankles were negative except for soft tissue swelling. Her sedimentation rate was 52 mm. per hour (Wintrobe, uncorrected) with hematocrit of 36 per cent. Her white count was 10,650 with 69 per cent segmented neutrophiles, 28 per cent lymphocytes, and 3 per cent monocytes. ASO titre was 1250 Todd units and C-reactive protein was positive. Her electrocardiogram was within normal limits. No cardiac murmurs or abnormal sounds were heard. Her course in the hospital on strict bed rest and oral penicillin V, 200,000 units t.i.d., showed normal temperatures after the second day and subsidence of all joint pains and signs by the third day. Sedimentation rate was 50 mm. per hour and C-reactive protein was negative at time of discharge seven days after admission. The patient was continued on bed rest with bathroom privileges at home and prophylactic oral penicillin G, 250,000 units every morning.

Her previous record of throat cultures for beta hemolytic streptococcus taken from the school records including an extra culture taken December 6, 1956, was:

1956	
October 10	Positive
November 28	Positive
December 6	Positive
1957	
March 4	Negative
May 21	Positive
September 9	Negative
November 21	Negative
1958	
February 25	Positive
April 30	Negative

Discussion

Cases 1 and 2 fell into the 31 to 40 per cent range of positive throat cultures and Case 3 fell into the 41 to 50 per cent range. Only 18.6 per cent of the

403 pupils tabulated in Table II had more than 30 per cent of their throat cultures positive for beta hemolytic streptococcus. The possibility that all three of the cases of rheumatic fever reported here would fall in the 18.6 per cent range by chance alone, is one in 155. Therefore, a significant relationship is established between these initial attacks of rheumatic fever and the previous greater-than-average incidence of positive throat cultures.

None of the *routine* positive throat cultures on the three patients included in the data of Tables I and II occurred in the forty-five-day period prior to the onset of their symptoms of rheumatic fever; therefore, the incidence of positive cultures represents their streptococcal experience prior to this critical period. This does not mean that they did not have streptococcal infections in that forty-five-day period as well, but only that the data given here is prior to that period. Moreover, from my personal experience with the pupils in this and similar surveys, many clinical streptococcal infections (including positive throat cultures) occurred among pupils with no positive *routine* throat cultures. Therefore, a series of negative routine cultures does not necessarily indicate no previous experience with streptococcal infections.

It may well be argued that chorea is a late manifestation of rheumatic fever in Case 2 and that the previous painful joints in Case 3 were manifestations of earlier attacks of rheumatic fever. However, the diagnosis of rheumatic fever must be made on clinical grounds and prior to the described episodes there would have been insufficient criteria for such a diagnosis. Therefore, the use of the term "initial" is, I believe, justified.

Summary

Three pupils who had a greater-than average incidence of positive streptococcal throat cultures over a two-school-year period had initial attacks of rheumatic fever at the end of that two-year period. A comparison of their streptococcal experience with that of 400 other pupils in the same school gives additional evidence in support of the hypothesis that repeated past streptococcal infections, properly spaced, may alter the susceptibility of a patient to rheumatic fever.

References

1. Rammelkamp, C. H., Jr.: Editorial. Am. J. Clin. Path., 26:555, 1956.

Tuberculosis, Leukemia, and Leukemoid Reactions

The problem of the relationship between leukemia and tuberculosis has been further complicated by the constantly increasing use of corticotropin (ACTH) and adrenocortical hormones in treating both diseases. Four cases of tuberculosis associated with leukemia or leukemoid reactions are described. The four patients were treated with ACTH and adrenocortical hormones besides other specific treatments for tuberculosis and leukemia. In three of them, the administration of corticosteroids preceded the onset of leukemoid signs and symptoms; in one, although the clinical picture was one of acute leukosis, at autopsy no leukemic infiltrates were found either in the spleen or in other organs. It is concluded that although it is difficult to distinguish between leukemia proper and the so-called leukemoid reactions, the latter seem to be more frequent.

The development of leukemic syndromes or a rapid change of a chronic leukemia into an acute process is frequently observed among tuberculous patients. The findings in this study also suggest a possible effect of corticotropic and adrenocortical hormones on the pathogenic relationship between the two diseases. The administration of these hormones must be done with the greatest caution in such patients.—*Revista Asociacion medica argentina,* Buenos Aires, May, 1960.

Fibrinolysin Therapy in Thrombotic Diseases of the Nervous System

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IF THE INCIDENCE of stroke due to cerebral arteriosclerosis continues, cerebrovascular disease may soon overtake schizophrenia as the commonest cause of disability requiring hospitalization in the United States. Until the present time, therapy has been limited to supportive measures and the use of anticoagulant drugs which are designed to prevent further thrombosis or embolism but which have no effect on clots already present.[1,2]

Although it has been known for many years that spontaneous dissolution of small intravascular thrombi regularly occurs in the normal process of tissue repair, the phenomenon of clot lysis has been little studied and was poorly understood. Recent advances in the understanding of thrombolysis and in protein chemistry have made the isolation of fibrinolytic enzymes, their precursors and activators feasible in sufficiently pure form so that they can be injected into the blood stream in an attempt to lyse intravascular clots.

The value of dissolution of clots in the cerebral arterial circulation, even if it proves feasible, will have certain limitations since any area of cerebral tissue that is completely deprived of its oxygen supply is irreversibly destroyed within ten minutes and if the oxygen supply falls below 20 per cent for sixty minutes, infarction will occur.[3,4] Nevertheless, recent evidence indicates that the cerebral collateral circulation is much more extensive than previously believed and nervous tissue receiving between 20 per cent and 80 per cent of its normal oxygen requirement may remain alive but non-functional for a considerable period of time, suggesting that restoration of circulation may permit the salvage of cerebral tissue that otherwise would remain functionless and eventually die.

Several dangers are inherent in therapeutic thrombolysis. Perhaps the most obvious is the danger of intracerebral hemorrhage. The vessel wall distal to an arterial occlusion is damaged by anoxia and dissolution of the clot might cause hemorrhage into the infarcted area, making the lesion worse and extending the area of injury. Dangers of hemorrhage in other areas of the body such as the gastro-intestinal tract or the genito-urinary system must also be considered. Another possible danger is that fragments of partially lysed clot may embolize to areas being sustained by collateral circulation and thus increase the area of ischemia.

Materials and Methods

Chloroform activated bovine fibrinolysin (Parke-Davis) and streptokinase activated human fibrinolysin (Merck, Sharp and Dohme) were supplied to us in lyophilized form. This material was dissolved in 1000 mls. of 5 per cent glucose in distilled water cooled to approximately 4 degrees Centigrade. The solution was kept cold (as close to 4 degrees as possible) during administration by a refrigerant jacket and was given intravenously (in one case intra-arterially) during a period of three to six hours. Considerable care was necessary to prevent perivascular extravasation of the solution which is irritating to tissues and in most cases the vein was cannulated with a polyethylene tube to obviate the danger of perivenous infiltration.

Twenty-seven cases of cerebral artery occlusion were selected for treatment using the following criteria:

1. All patients were acutely ill and showed gross, objective neurological deficits clearly attributable to severe focal cerebral ischemia.
2. Lumbar puncture was performed on all patients. Any evidence of intracerebral bleeding (xanthochromia, erythrocytes exceeding 3000 not clearly attributable to a traumatic tap) was considered a contraindication to therapy.
3. A past medical history of allergic disease was considered to be a contraindication.
4. Whenever possible, cases with transient neurological deficits were excluded (cerebrovascular insufficiency).

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TABLE I.

Case No.	Age	Diagnosis	Duration of Lesion	Days ℞	Clinical Result	Arteriographic and Necropsy Findings	Adverse Reaction
275145	56	Branch occlusion, L. middle cerebral artery	28 hrs.	2	Improved	Large plaque at bifurcation of L. carotid artery	Ecchymoses at sites of local trauma
169272	50	Branch occlusion, L. middle cerebral, embolic	36 hrs.	3	Marked improvement	Moderate arteriosclerosis of internal carotid	None
285667	73	Occlusion of L. middle cerebral artery	Uncertain 1-6 days	3	Died from congestive failure	Necropsy refused	None
169319	50	Branch occlusion, basilar artery, upper pons	24 hrs.	1	Improved, died 2 wks. later, gi hemorrhage	Grade II atherosclerosis, infarct accounting for symptoms for which she was treated not found	Local tenderness along vein of injection
286493	53	Occlusion of L. middle cerebral artery	8 days	1	Died	Thrombosis of L. middle cerebral by arteriography, necropsy refused	None
151861	66	Branch occlusion, L. middle cerebral	12 hrs.	3	Improved	Severe atherosclerosis of internal carotids, vertebrals, and basilar artery (Fig. 6)	None
228407	80	Basilar artery thrombosis	4-6 hrs.	2	Died, 3rd day	Necropsy refused	Ecchymoses hematuria rectal bleeding
276666	61	Embolic occlusion of branch of L. middle cerebral	24 hrs.	1	Improved	Severe, diffuse atherosclerosis of intracranial vessels	Extravasation with local inflammation
275658	64	Thrombosis of R. posterior cerebral artery	60 hrs.	3	Marked improvement in 1st 6 hrs.	Carotids normal, stenosis of L. vertebral	None
285448	47	Thrombosis of basilar artery	2 hrs.	Less than 1	Died 31 hrs. later	Necropsy confirmed, basilar artery thrombosis	Temp. 101 probably not due to fibrinolysin
289783	76	Thrombosis of L. internal carotid artery	24 hrs.	3	Died on 3rd day	Necropsy confirmed, L. internal carotid thrombosis, also acute myocardial infarct	None
1721	57	Branch occlusion right middle cerebral	24 hrs.	Less than 1	Improved	Arteriograms not done	Generalized urticaria
225903	48	Branch occlusion R. middle cerebral	30 hrs.	3	Improved	Stenosis, marked R. middle cerebral, no change after ℞	None
279816	55	L. carotid stenosis and L. middle cerebral thrombosis	60 hrs.	3	Improved	Left carotid stenosis, L. middle cerebral occlusion	None
294158	43	L. carotid thrombosis	12 hrs.	2	Died 9 days after ℞ from resp. obstruction	Necropsy findings of L. carotid thrombosis with multiple cerebral embolization	Gastrointestinal hemorrhage
296612	74	Thrombosis, R. internal carotid	96 hrs.	Less than 1	Died 1 hr. 45 min. after ℞ started	Necropsy refused	None
296473	57	L. carotid stenosis then L. carotid thrombosis	16 hrs.	1	Progressed	Necropsy finding of complete L. carotid occlusion	Progression
294416	65	Bilateral vertebral artery occlusion	1 mo.	3	Unimproved, died 6 days after ℞ finished	Vertebral artery occlusion bilaterally with severe carotid atherosclerosis	None
256235	52	L. carotid thrombosis 1958, R. carotid thrombosis 1960	2 yrs. 48 hrs.	3	Unimproved	Bilateral carotid occlusion	None
236194	31	L. internal carotid thrombosis 48 hrs. R. internal carotid thrombosis 6 mo.	48 hrs.	2	Improved	Bilateral carotid occlusion	Generalized urticaria
297121	67	L. carotid thrombosis	Less than 24 hrs.	3	Complete recovery	L. carotid stenosis after therapy	None
295604	68	Branch occlusion R. middle cerebral	12 hrs.	2	Myocardial infarct during therapy	L. carotid stenosis before therapy, necropsy refused (Fig. 4)	Myocardial infarct occurred during ℞
320533	50	R. carotid stenosis, embolism to anomalous basilar artery	16 hrs.	1	Died	Anomalous origin of basilar artery with R. carotid stenosis, mural thrombosis and embolism	None
312719	72	Stroke in evolution L. middle cerebral distribution	48 hrs. progressing	3	Marked improvement	Diffuse atherosclerosis of carotid arteries and their intracranial branches	None
297061	70	L. internal carotid thrombosis	8 days	3	Slight improvement	L. internal carotid thrombosis	None
66129	70	Thrombosis in vertebral or basilar artery	24 hrs.	3	Died	Complete occlusion of L. vertebral at origin and R. in middle of 2nd portion	Progressed apparently embolization
232322	53	Occlusion of central retinal vein on the left	36 hrs.	1	Unimproved	No improvement in vision or appearance on funduscopic exam.	Generalized urticaria
322829	41	Bilateral cavernous sinus thrombosis	36 hrs.	1 (Thromboly-sin)	Improved	Carotid arteries normal, cavernous sinus not visualized	Bleeding from recent tracheotomy
297899	66	Branch occlusion L. middle cerebral	12 hrs.	3	Improved	Not done	Generalized urticaria
291751	68	L. middle cerebral, branch occlusion	6 hrs.	3	Improved	Plaque at bifurcation of R. internal carotid, atherosclerosis of L. vertebral, spondylotic compression, R. vertebral	None

5. Before therapy, patients were skin tested for possible allergy to bovine fibrinolysin. If this was noted, treatment with the bovine preparation was considered to be contraindicated.

Diagnosis was confirmed by autopsy in six cases and by arteriography in sixteen. The remaining patients were considered to be too ill for arteriography and the diagnosis was made on clinical grounds. In addition, one case of retinal vein thrombosis and one case of bilateral cavernous sinus thrombosis were treated with fibrinolytic enzymes.

All patients admitted to the neurology service with the diagnosis of intracranial thrombosis or embolism who met the above criteria were anticoagulated with heparin and dicumarol and started on fibrinolysin

therapy within a few hours of admission or as soon as the diagnosis was accurately established. Anticoagulants were given with the fibrinolysin in order to prevent recurrent thrombosis immediately after fibrinolysin therapy[5]. The fibrinolysin was given in most cases in three separate doses of 20 to 35 Loomis units per kilogram of body weight over a three-to six-hour period on three successive days. During the period of administration the patients were observed at frequent intervals for signs of any unfavorable reaction and the blood pressure, pulse, respiration and temperature were measured hourly. No attempt at a random study was made as we have not as yet established the safest and most effective regimen for therapy and we have been varying the dosage, both of the fibrinolysin and of the anticoagulants, in an attempt to define the safest and most effective course of therapy.

Routine laboratory studies included hemoglobin, white blood count, differential leukocyte count, serum glutamic oxaloacetic transaminase, fasting blood sugar, plasma urea nitrogen, serum lipids and cholesterol levels and daily prothrombin times. Frequent Lee-White clotting time determinations were also performed.

One of us (J.F.J.) performed plasma fibrinogen determinations before, during, and after therapy on nine patients for a total of twelve patient-days of therapy. The procedure used was a modification of the Whipple, Hurwitz procedure as described by Ware and his associates.[6]

Tests for fibrinolytic activity of the patient plasma have been done for a few patients and indicated increased fibrinolytic activity in all instances. Observation of other clotting factors has been performed and due to the coincidental administration of anticoagulants, alterations observed are those expected following such therapy, except that the activity of heparin and dicumarol appears to be increased by fibrinolysin.

Results

The results of therapy in all treated cases are summarized in Table I.

Clinical Complications.—Hemorrhages other than in the brain were observed in four patients. Two of these had gastrointestinal hemorrhage (one had hematuria also), one had bleeding from a tracheostomy which was performed during therapy, and the remaining patient developed extensive ecchymoses at sites of minor trauma. In each of these cases there was either an excessively prolonged prothrombin time or a clotting time of greater than thirty minutes. Our present experience indicates that the usually accepted dosage of anticoagulants must be reduced when given with fibrinolysin, in which case hemorrhagic phenomena are usually avoidable. In our experience it appears that some of the circulating prothrombin is destroyed by fibrinolysin and therapeutic prothrombin times are reached faster and with smaller dosages of coumadin or dicumarol than is the case when combined therapy with fibrinolysin is not used. The mechanism of interaction with heparin is not understood but there seems to be a synergistic effect with prolongation of the clotting time. In only one of the above cited patients was hemorrhage sufficiently severe to necessitate transfusion.

Generalized urticaria was seen in four cases and required discontinuation of therapy in three. One of these reactions occurred on the second day of treatment and one occurred on the fourth day after the completion of therapy. All urticarial reactions responded well to treatment with benadryl, epinephrine, and in two severe cases, with prednisolone. In the cases requiring prednisolone, the drug was withdrawn over the succeeding three to five days without recurrence of the skin lesions. Experiments with guinea-pigs indicate that bovine fibrinolysin is about equally anaphylactogenic as bovine serum and two patients who received bovine fibrinolysin therapy without any allergic response were tested two to six months following therapy and both developed a two to three cm. area of induration with erythema about the site when a test dose of 1 unit was injected intradermally.

No febrile reactions clearly attributable to fibrinolysin were noted. One patient with severe thrombosis of the basilar artery developed a terminal fever of 101 degrees which began thirty minutes after the start of fibrinolysin therapy but was considered to be coincidental. No other evidence of allergic reaction was noted. The patient died thirty-one hours later and postmortem examination confirmed the diagnosis of recent thrombosis of the basilar artery with infarction of the brain-stem.

One patient developed local erythema and tenderness which persisted for several days at the site where the solution was inadvertently injected perivenously and another patient developed local tenderness along the vein of injection which was sufficiently severe that it was decided to discontinue therapy shortly before completion of the first day. No other evidence of inflammation was noted and the venous

tenderness subsided over the succeeding twenty-four hours.

Arteriographic Studies.—Arteriography was performed in sixteen patients. In one patient with bilateral vertebral artery occlusion of one month's duration, arteriograms were performed before and after therapy but there was no detectable change at the site of occlusion. Two patients who had arteriograms prior to therapy were examined at necropsy. In both instances the site of thrombus noted at necropsy confirmed the arteriographic diagnosis but there was no evidence of clot dissolution in one case and evidence of fragmentation of the thrombus with distal embolization in the other.

Illustrative Cases

Five cases have been selected which we believe illustrate both the potential therapeutic advantages and complications of this form of therapy.

Poor Therapeutic Result

Case 1 (320533).—A woman, aged fifty, was admitted to Detroit Receiving Hospital Neurology Service with a chief complaint of numbness of the left hand. She had been well until four months prior to admission when she noted numbness in the little finger of the left hand and weakness in the left arm. The pain was not associated with movement of the neck. On several occasions she noted convulsive movements of the left side of the mouth and the arm. Her relatives had noted severe, progressive mental deterioration since her first complaints.

On examination, the blood pressure was 150/90, pulse was 90 per minute and regular, and respirations were 20 per minute. The speech was slurred because of lingual dysarthria. She was cooperative and oriented. She showed difficulty in simple arithmetic, making numerous errors. Her general information was poor and there was a marked deficit in recent memory. The cranial nerves were intact except for a supranuclear facial weakness on the left. There was weakness of the left arm particularly distally. Pain and touch were decreased in the left arm, the sensory disorder being more pronounced distally than proximally. Position and vibration sense were normal. The deep tendon reflexes were equal and active and the plantar reflexes were flexor. The cerebrospinal fluid showed an opening pressure of 110 mm. of water and a closing pressure of 70 mm. of water. The fluid was clear and colorless with no red blood cells, and 15 lymphocytes. The colloidal gold test was negative and the Kline test was negative. Total protein was 86 mg. per cent. Other routine laboratory tests were within normal limits.

Bilateral carotid arteriograms revealed an anomalous origin of the basilar artery from the right internal carotid artery about 1 centimeter above the normal bifurcation of the internal carotid artery, the basilar artery entering the skull through the hypoglossal foramen. Just below and also extending above the bifurcation of the common carotid artery, a large thrombus was outlined in the lumen of the right carotid artery (Fig. 2). Brachial arteriograms revealed rudimentary vertebral arteries bilaterally.

The patient's condition remained unchanged until the fifth hospital day when she suddenly became stuporous and had generalized convulsions. It was concluded that the mural thrombus in the common carotid artery had fragmented with embolic occlusion of the basilar artery. Fibrinolysin therapy was begun approximately sixteen hours after the sudden worsening of her condition and an intravenous infusion of 3100 Loomis units of bovine fibrinolysin in 1000 mls. of 5 per cent dextrose and water was begun. Intramuscular injections of 100 mg. of heparin every eight hours was also instituted. There was no improvement in her condition and she expired on the following day. Necropsy confirmed the anomalous origin of the basilar artery with an embolus lodged within it and fragmentation of the mural thrombus located at the bifurcation of the internal carotid (Figs. 2 and 4).

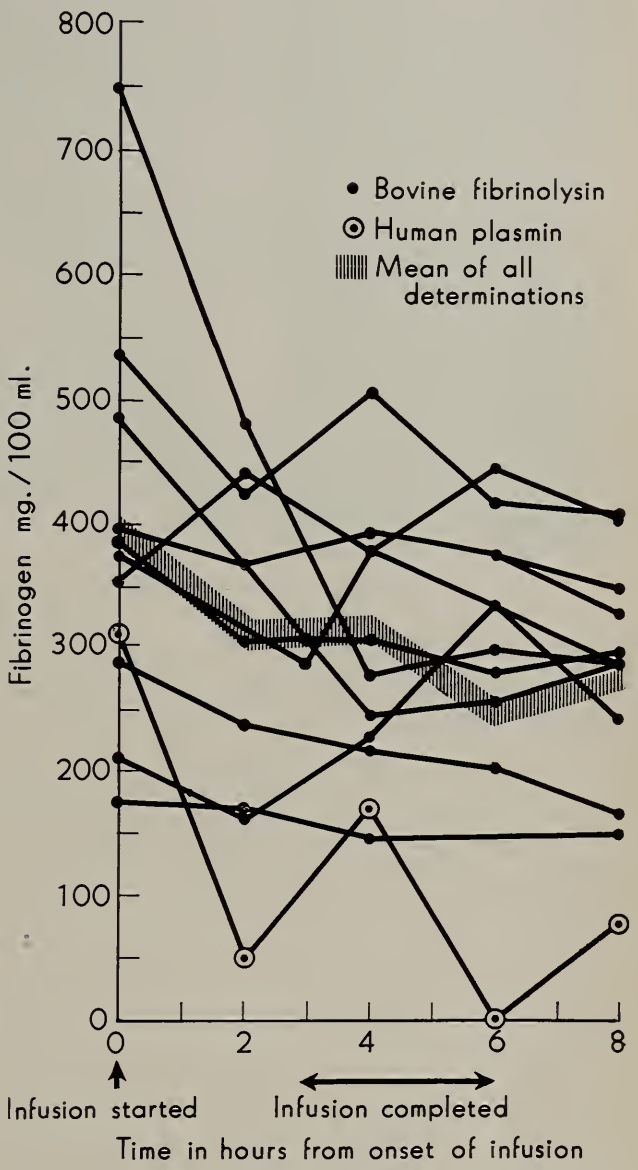

Fig. 1. Changes in Fibrinogen levels in twelve patients treated with Fibrinolysin.

Fig. 4. Case 1 (320533). Necropsy photographs of anomalous basilar artery arising from the right hypoglossal canal. Arrow indicates the terminal end of an embolus lodged in the basilar artery cut in cross section. The brain-stem beneath it is softened.

Fig. 2. Case 1 (320533). *(left)* Transbrachial arteriogram showing anomalous origin of the basilar artery from the right internal carotid artery and entering the skull through the hypoglossal canal. There are atherosclerotic plaques in the common and internal carotid arteries with superimposed thrombus formation. Note that the basilar artery is patent. The right vertebral artery is extremely narrow and hypoplastic.

Fig. 3. Case 1 (320533). *(right)* Necropsy specimen of the common carotid artery showing atherosclerotic plaques proximal to the origin of the external carotid and anomalous basilar artery with embolus (indicated by black arrow) lodged in the mouth of the basilar artery. Steel probe to the right is placed in the external carotid artery and pin to the left is placed in the lumen of the basilar artery.

Therapy Discontinued Because of Embolization

Case 2 (296473)—A woman, aged fifty-seven, was admitted because of inability to talk. She had been well until a few hours before admission when she developed aphasia and slight weakness and numbness of the right hand.

On examination, the blood pressure was 240/140, the pulse was 96 per minute, and the respirations were 20 per minute. The carotid pulses were unequal, the left being diminished. The heart was markedly enlarged to the left with a heaving precordium and a grade I apical systolic murmur.

The patient was unable to talk but was able to carry out simple commands and appeared to understand what was said to her. She was also able to understand and carry out written commands. Speech was totally impossible for her and the only way she was able to answer questions was by shaking her head and making meaningless sounds. There was grade II hypertensive retinopathy. There was slight distal weakness of the right arm. Tendon jerks were symmetrical and the plantar reflexes were flexor; sensory examination as far as could be tested appeared to be within normal limits.

The cerebrospinal fluid pressure was 150 mm. of water, was crystal clear with five white blood cells and no red cells. The Kline and colloidal gold reactions were negative. The total protein was 40 mgs. per cent. Other extensive laboratory data revealed no further relevant abnormalities.

A clinical diagnosis of ischemia in the distribution of the left carotid artery was made with possible progressive thrombosis of this vessel. The morning following admission her condition was unchanged and therapy with 3,100 Loomis units of bovine fibrinolysin was begun by intravenous infusion in 1000 mls. of 5 per cent dextrose in water. In addition, 40 mg. of coumadin were given by mouth. After one-half the fibrinolysin had been given, the infusion infiltrated the perivenous tissues and was reinserted. Shortly thereafter she was noted to be hemiplegic with total aphasia and marked impairment of consciousness. The reason for the sudden development of hemiplegia was not clear at the time and fibrinolysin was therefore discontinued. In retrospect, we believe that a portion of mural thrombus located in the internal carotid artery fragmented and embolized, resulting in the sudden worsening of symptoms[2].

The patient subsequently had a downhill course and expired three days later. At necropsy, complete thrombosis of the left internal carotid artery at the level of the bifurcation was found.

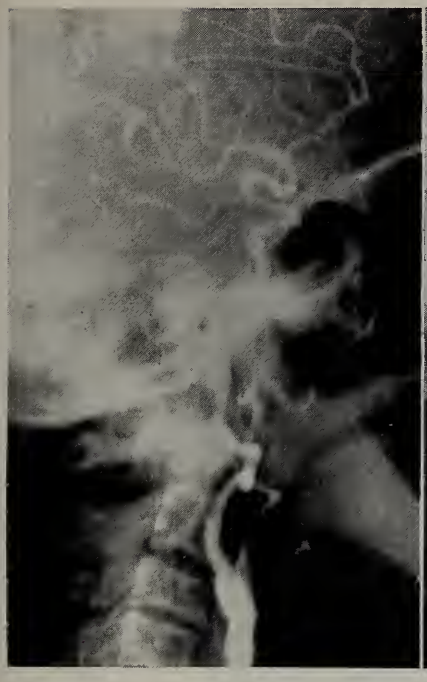

Fig. 5. Case 3 (151861). Left carotid arteriogram showing arteriosclerotic plaques and severe stenosis of the internal carotid artery.

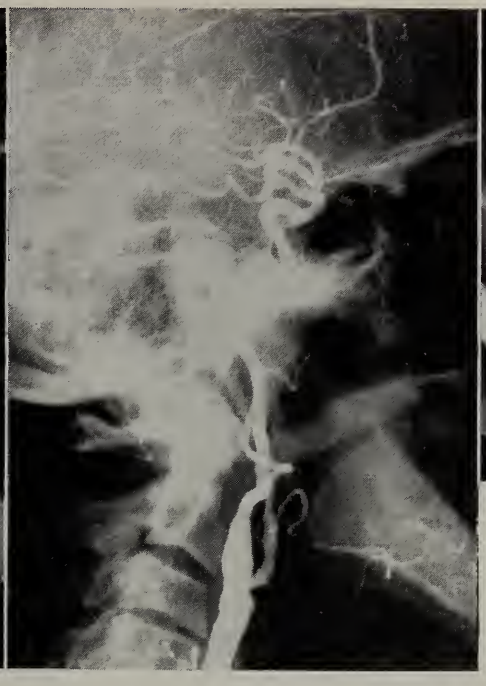

Fig. 6. Case 3 (151861). Right carotid arteriogram showing arteriosclerotic plaques and stenosis of the internal carotid artery.

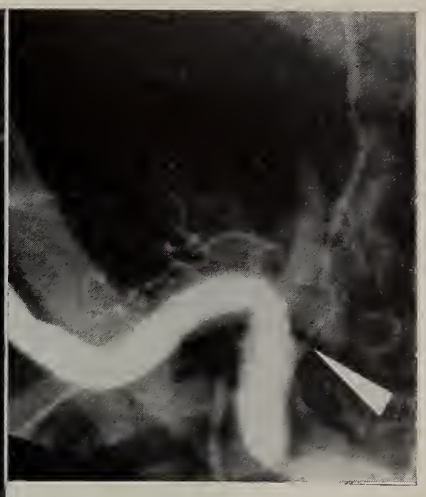

Fig. 7. Case 3 (151861). Right transbrachial subclavian retrograde vertebral arteriogram showing atherosclerotic plaques of right subclavian artery and stenosis of right vertebral artery (shown by white pointer).

Moderately Good Therapeutic Result

Case 3 (151861)—A man, aged sixty-six, awoke the morning of admission unable to speak or move his right side. He had been well the night before and had no previous symptoms. He had been treated in the medical out-patient clinic for the past year for hypertensive cardiovascular disease with congestive heart failure. Therapy consisted of digitalis, rauwolfia and hydrochlorothiazide. The last blood pressure taken in the clinic was 170/90 mm. Hg.

On examination the blood pressure was 180/90, the pulse was 96 per minute and the respirations 24 per minute. A complete aphasia was present with right hemiplegia. A right homonymous hemianopia was present, and a right supranuclear paralysis of the facial nerve. The paralysis of the right arm and leg was flaccid. The tendon jerks were absent on the right side; on the left side they were active. An abnormal plantar response was present bilaterally. Hypalgesia was present over the right side.

The cerebrospinal fluid was cloudy and pink (clearing in second tube) with an opening pressure of 120 per 100 mm. of water and 46,800 red cells; 1 leukocyte per cubic mm. were noted. This was a traumatic tap. The total protein was 74 mgs. per cent. The total cholesterol of the blood was 386 mg. per cent.

The patient was treated with intravenous fibrinolysin for three days. There was gradual improvement with clearing of the right homonymous hemianopia by the third day, but aphasia was only moderately improved. At the time of discharge, three weeks later, he was able to speak in short sentences, but there was still considerable difficulty with some words and there was frequent mispronunciation of syllables. A spastic right hemiplegia persisted. Carotid arteriograms were performed following treatment (Figs. 5, 6, and 7) and revealed a narrow right vertebral artery with numerous plaques, plaques in the basilar artery, tortuosity of both carotid arteries, and numerous plaques and irregularities of the intracranial arteries.

Therapy Complicated by Myocardial Infarction

Case 4 (295604)—A woman, aged sixty-eight, was admitted to hospital because of the sudden onset of left hemiplegia and dysarthria.

On examination, the blood pressure was 130/80, the pulse was 80 per minute and the respirations 18 per minute.

She was partially oriented for time but was well oriented to person and place. Comprehension was slow but she was able to converse slowly with some dysarthria. There was diminished pain sensation over the left side of the face and there was a left supranuclear facial paralysis and left hemiparesis. The tendon jerks were increased on the left and the left plantar was extensor. Pain, touch, vibration and position sense were impaired in the left arm and leg.

The cerebrospinal fluid was normal without increase of pressure, cellular or protein content.

A diagnosis of thrombosis of a capsular branch of the right middle cerebral artery was made and arteriograms were performed (Figs. 8, and 9). These revealed marked narrowing and tortuosity of both internal carotid arteries, more marked on the right than on the left. The patient was started on fibrinolysin after arteriography and showed some improvement during the first day. However, shortly after fibrinolysin was started on the second day the patient complained of severe left chest pain, had a drop in blood pressure from 180 systolic to 120 systolic. An electrocardiogram performed at the time revealed acute myocardial

infarction. The patient's mental condition deteriorated rapidly, she became semi-comatose, the left hemiplegia recurred and she died two days after the myocardial infarction.

Fig. 8. Case 4 (295604). Right transbrachial arteriogram showing severe stenosis of the right common carotid artery and plaques and tortuosity of the right vertebral artery.

Fig. 9. Case 4 (295604). Left transbrachial vertebral arteriogram showing tortuosity of the vertebral arteries and plaques in the basilar artery.

Excellent Therapeutic Result

Case 5 (297121)—A white man, aged sixty-seven, was well until the day of admission when he collapsed at home and was brought to hospital comatose.

On examination, the patient was moribund, there was no response to painful stimuli and there were occasional clonic jerks of the right arm and right leg. The blood pressure was 156/70, the pulse was 90 per minute and regular, and the respirations were 24 per minute. He was unable to swallow and intermittent respiratory obstruction occurred due to saliva and mucus. A tracheotomy was performed immediately upon admission. The pupils were equal, moderately dilated and did not react to light. On rotation of the head, the extra-ocular movements were normal. The face was symmetrical with no apparent weakness. The gag reflex and swallowing reflexes were absent. Occasionally, there was movement of the left arm and leg. The tendon jerks were increased on the left and both plantar reflexes were extensor.

The clinical diagnosis at this time was thrombosis of the left internal carotid artery, with impending death from brain swelling. Because of his critical condition, arteriography was not performed. The patient was treated with dicumarol, heparin, and fibrinolysin. Dilantin was also given because of the seizures. The cerebrospinal fluid pressure was 174 mm. and appeared crystal clear. The total protein was 86 mg. per cent but there was no increase in cells and the serological test was negative. Other extensive laboratory tests indicated a moderate degree of hemoconcentration due to dehydration.

Intravenous therapy with 3100 units of bovine fibrinolysin daily for three successive days was begun and anticoagulation was maintained initially with heparin, later with coumadin. During the first day's therapy, the patient's condition improved, and six hours after its start, he began to respond and moved his left side vigorously. The following morning his condition was essentially unchanged from that six hours after the start of therapy and a repeat dose of fibrinolysin was given. At the end of the second day's treatment, the patient was alert and able to answer questions with brief but appropriate answers, and was able to move his right leg. He was also beginning to have some movement at the shoulder and at the elbow of the right arm. Following the third day's course of therapy, the patient was alert and oriented, able to answer questions well, was oriented to time, person and place, and was moving all of his extremities, although there was still considerable weakness of the wrist and fingers of the right hand. The tracheotomy tube was removed and over the next two weeks the patient showed complete recovery except for a barely detectible weakness in the fingers of the right hand. Bilateral

carotid arteriograms were done nine days after admission and revealed moderate arteriosclerotic changes with a plaque at the bifurcation of the internal carotid on the left.

The patient was seen in the clinic one month following discharge, at which time complete neurological examination was normal.

Laboratory Studies

Fibrinogen levels were determined in ten patients before, during and after therapy and in two patients on two successive days. In each case there was an initial drop followed by a rapid return toward initial levels after completion of that day's course (Fig. 1).

No significant changes were noted in hemoglobin, leukocyte count, fasting blood sugar, plasma urea nitrogen or serum glutamic oxalacetic transaminase (excepting two cases suffering from a recent myocardial infarction). Lee-White clotting time and prothrombin time were prolonged as a result of heparin and dicumarol therapy.

Discussion

Our main concern in this clinical study has been to determine whether fibrinolysin therapy in cerebrovascular thrombosis is feasible, causes lysis of cerebral arterial thrombi and yet is not hazardous to the patient. For this reason we selected a group of critically ill patients who were considered to have a poor prognosis. Such information must be obtained before a statistical analysis is embarked upon with a large, random series of cases. The possible hazards of fibrinolysin therapy are: (1) intracranial hemorrhage (2) hemorrhage elsewhere in the body (3) anaphylaxis and allergic reactions and (4) the fragmentation of mural thrombi in large cerebral vessels such as the carotid and vertebral arteries with resultant cerebral embolization.

Intracranial Hemorrhage.—Many cerebral infarcts are hemorrhagic and it was feared that if combined fibrinolytic and anticoagulant therapy was used, cerebral hemorrhage might result. If care is taken to exclude cases of cerebral hemorrhage, detailed autopsy studies in this series of cases so far have failed to show evidence of any increase in the hemorrhagic nature of the cerebral infarcts.[6]

Hemorrhage Elsewhere in the Body.—There is no doubt that combined therapy with anticoagulant drugs and fibrinolysin causes a considerable hazard of hemorrhage from areas of trauma, recent surgery, the gastrointestinal tract and the genito-urinary tract. These complications are largely avoidable if the usual dose of anticoagulant drugs is reduced when combined with fibrinolysin and patients with sites of possible bleeding are excluded (such as patients with recent surgery or a history of bleeding ulcer).

Anaphylaxis and Allergic Reaction.—We have seen several examples of allergic reactions with urticaria due to bovine fibrinolysin but no anaphylactic responses have resulted. Furthermore, we believe that one course of therapy may sensitize the patient so that later courses of therapy might prove hazardous. However, before we were aware of this potential hazard, we treated one patient with recurrent cerebral thrombosis with a second course of fibrinolysin three months after the first trial without ill effect. For this reason we believe purified preparations or preparations of activated fibrinolysin from human sources may ultimately prove more satisfactory.

Fragmentation of Mural Thrombi with Forward Embolism.—There is a growing body of evidence that in the natural history of cerebral arteriosclerosis cerebral embolism may result from fragmentation of mural thrombi or plaques located in the carotid and vertebral arteries in the neck.[2] A real danger of fibrinolytic enzyme therapy is that such fragmentation of the clot with forward embolization may be increased. We suspect that this may have occurred in Case 2 (296473) and possibly in Case 1 (320533) (but in Case 1, embolism occurred prior to therapy) although it is impossible to deny that the process may have occurred whether fibrinolysin therapy was given or not.

Our clinical and laboratory experience would lead us to conclude, however, that intravenous fibrinolysin therapy in thrombotic disease of the nervous system is feasible, and with experience, can be rendered reasonably safe and does result in increased fibrinolytic activity in the blood. It may be useful in cerebral venous thrombosis as judged by its use in a case of bilateral cavernous sinus thrombosis and in thrombosis of small as well as large cerebral arteries as judged by clinical diagnosis of occlusion of small cerebral vessels.

Experiments in which thrombi induced in the pial arteries of monkeys and cats have been photographed at intervals also indicate that intravenous fibrinolysin therapy is effective, although slightly less so than direct arterial perfusion with fibrinolysin.[7] Unless anticoagulants are used in conjunction with fibrinolysin therapy, the clot tends to reform about one hour after discontinuing the intravenous infusion.

The present study offers no conclusive evidence of

the therapeutic usefulness of fibrinolysin therapy in cerebrovascular thrombosis. Because of the short survival time of brain tissue, irreversible damage may often result before therapy is instituted and cerebrovascular disease has a highly variable history. Conclusive evidence must await evaluation of a larger series in which the patients selected for treatment are chosen in a random manner and carefully compared with an untreated control group. However, the present study permits two conclusions, first, that fibrinolysin therapy is by no means effective in all cases of cerebrovascular thrombosis but it does appear to be feasible and to show promise in some cases of cerebral thrombosis of recent onset (within a matter of hours or a few days).

Summary

Intravenous bovine fibrinolysin therapy has been used in combination with anticoagulant therapy in twenty-seven cases of cerebral arterial thrombosis and two cases of cerebral venous thrombosis. This means of medical therapy is feasible and most complications such as bleeding (four cases) and urticaria (four cases) can be avoided. While the present data is insufficient to permit conclusions regarding the ultimate usefulness of this form of therapy, it appears that while the method shows promise, it is not effective in all cases of cerebrovascular thrombosis. Reasons why some forms of cerebral ischemia are refractory to treatment are discussed.

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Recurrent Myocardial Infarction After Anticoagulants

The author reports on sixteen men and four women, thirty-seven to seventy-eight years of age, with a recurrence of acute myocardial infarction within four weeks after discontinuation of anticoagulant therapy. This therapy was started in all patients soon after their admission to the Pennsylvania Hospital, Philadelphia, and was maintained for from twenty-four to eighty-two days. It was abruptly discontinued in five patients; in the remaining fifteen, withdrawal was accomplished within three to four days in two patients, within five to ten days in twelve, and within twenty-one days in one. The interval from the last dose of the anticoagulant to the recurrence of infarction was from one to twenty-four days and averaged eleven days. The site of the recurrent infarct as determined by the electrocardiogram was about the same in four, different in five, indeterminate in eight, and not evaluated in three patients because of sudden deaths. Seven of these twenty patients died.

The data suggest that the relatively frequent recurrence of acute myocardial infarction after abrupt cessation of anticoagulant therapy is not a fortuity. The mechanism responsible has not been established. Consideration should be given to more prolonged anticoagulant therapy after clinical recovery from a first attack of acute myocardial infarction; it should be maintained in the average patient for at least six to eight weeks after ambulation. On termination of therapy, the dosage of the anticoagulant should be reduced very gradually, preferably over a period of at least four weeks. The tapering-off should be guided by weekly determinations of prothrombin times because of the variability of response to withdrawal. —*American Heart Journal,* July, 1960.

Do Patients with Peptic Ulcer Have Increased Risk of Premature Death from Arteriosclerotic (Coronary) Heart Disease?

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In 1908, Ignatovsky,[1] a physician of the Russian Imperial Military Academy, made the observation that "there appears to be a difference both in diet and the severity of the arterial lesions in the rich and the poor, in officers and soldiers, and between milk-drinking pastoral tribes and the peasants living on vegetables and grains." He did something about this observation. He fed rabbits milk and egg yolk. The rabbits developed severe arteriosclerosis. Two years later (1910) Windaus[2] reported that atheromatous aortas in the human have a higher content of free cholesterol, and more particularly of cholesterol esters, than have normal aortas. In 1913, Anitschkow and Chalatow[3] produced arterial lesions in rabbits by adding pure cholesterol to their diet; this was confirmed in this country by Bailey[4] of Stanford University in 1916.

Following these three epoch-making studies, a voluminous literature appeared, chiefly during the last ten years, dealing with experimental, epidemiologic, and clinical studies, most of which focus attention on a possible relationship between diet, blood cholesterol, and coronary heart disease in man. The reader is referred to several excellent reviews on this subject,[5-11] particularly the monograph by Katz, Stamler, and Pick[9] with its extensive bibliography.

Many factors are incriminated in coronary heart disease in man: diet, heredity, hypertension, obesity, socioeconomic stress, hormones, physical activity, blood cholesterol (and other lipids), smoking, blood-clotting mechanisms, and changes in the intima of the blood vessels.

With respect to diet and blood cholesterol, the literature leaves the following impressions:

1. Men who regularly consume foods high in saturated fatty acids (milk, cream, eggs, butter and so forth) have high serum cholesterol levels.

2. Persons with high serum cholesterol levels have a high risk of arteriosclerotic heart disease.

3. Serum cholesterol levels in man can be lowered by decreasing the saturated fatty acids in the diet and increasing the polyunsaturated fatty acids.

4. Some observers doubt that changes in dietary pattern alone will decrease the occurrence of arteriosclerotic heart disease even if blood cholesterol is lowered. This is a controversial question. However, until disproved by long-term observations it is generally agreed that efforts should be directed to lowering elevated serum cholesterol levels in the following "high risk" coronary patients: (1) patients with persistent hypercholesterolemia, (2) patients with a personal history of arteriosclerotic heart disease, and (3) patients with a strong family history of arteriosclerotic heart disease.

How do these considerations relate to patients with peptic ulcer?

Milk has been used for centuries in the treatment of peptic ulcer. In 1856, Cruveilhier[12] stressed its importance. In 1915, seven years after Ignatovsky's report on the possible deleterious effect of milk and eggs on arteriosclerosis in rabbits, Sippy[13] reported the beneficial effect of these foods (plus antacids) on the clinical course of peptic ulcer and popularized frequent feedings of milk, cream, and eggs to these patients. For nearly fifty years, milk, cream, eggs, custards, and puddings have been used extensively in the dietary care of ulcer patients. These foods are high in saturated

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fatty acid content and therefore of possible significance in the development of arteriosclerotic heart disease.

Hochrein and Schleicher,[14] in 1941, first called attention to the frequency with which angina pectoris is associated with peptic ulcer in man and Plotz,[15,16] in 1948, first warned of a possible deleterious effect of Sippy ulcer diets on coronary heart disease in man. Since 1941, a number of publications on this subject have appeared in the literature which will be reviewed in another publication stemming from the present study.

The present communication deals with the causes of death among 180 white ulcer patients who had been treated for ulcer with Sippy and Modified Sippy diets intermittently for years, with emphasis on those patients who died of arteriosclerotic heart disease. If, truly, diets high in saturated fatty acids actually predispose to arteriosclerotic disease, mortality data on this group of patients should prove valuable, indeed.

Method of Study

Approximately 1800 consecutive white ulcer patients from the joint practice of two of the authors (D.J.S. and M.H.S.) are included in the survey. The group is primarily composed of middle-class, Jewish individuals. Early in 1960, efforts were initiated to contact each patient or a member of this immediate family to ascertain his health status with respect to ulcer, arteriosclerotic heart disease, and any other complaints. The patient or relative was contacted by telephone in most instances, but those individuals who had moved out of the Detroit area could be contacted only by questionnaire. Patients currently being seen in the office, hospital, or home did not require special contact. Attempts were made to locate all other patients by using the telephone and city directories for 1959 and prior years in an effort to gain knowledge about the patients and their relatives beyond that available from the office and hospital records, the physicians, and the office staff. After these resources were exhausted, the death records of the Michigan State Health Department were searched for every year subsequent to the last professional contact. For each patient reported to have died, a photostat copy of the death certificate was obtained from the State in which the death occurred. When it was known that a postmortem examination had been performed, the postmortem records were also obtained.

It is undoubtedly true that the reported causes of death for the general population contain inaccuracies arising from the fact that many death certificates are signed by physicians who have had little or no previous knowledge of the deceased persons. In our series of patients such inaccuracies, while a few may have occurred, were probably far less frequent. Our deceased patients were mainly members of middle-income groups with a pronounced concern for specialized and regular medical care.

The mortality experience of 180 ulcer patients known to be dead at the time of this report form the basis of the present communication. An evaluation of the clinical course in each of the 180 ulcer patients prior to their demise is in progress.

Results

Table I compares the percentages of total deaths from selected causes among the 180 deaths in the present study with corresponding data for the white race in Michigan and in the United States during 1950, excluding data for individuals under twenty years of age. The table gives comparative figures by sex because of the differential mortality between the sexes, particularly for the cardiovascular diseases. It was necessary to exclude deaths to very young persons because peptic ulcer and clinical arteriosclerotic heart disease are not common in young persons. Moreover, there were no deaths among the ulcer patients below age twenty. The year 1950 was chosen for comparison since it approximates the mid-year of experience for the ulcer patient group and since additional studies currently being made require population data which is available only for a census year.

Table I shows that 40.9 per cent of all male deaths in the present series are due to coronary and other arteriosclerotic heart disease, compared to 35.6 per cent for Michigan and 35.8 per cent for the U. S. as a whole. This represents approximately a 14 per cent increase in proportionate mortality from arteriosclerotic heart disease among males in the study group over the two comparison groups. The females show no such increased mortality but since there were only thirty-one female deaths in the present series, this cannot be interpreted as conclusive evidence in any direction. When sexes are combined and all ages included for comparative purposes there is even a greater increase; but this is due to the preponderance of males in the study group.*

Tables II and III compare coronary deaths by five-year age-groups. Table II gives data for both sexes combined and Table III gives similar information for males only. The information for males in the city of Detroit is unavailable for 1950. The tables show that the ulcer patients studied tended to die considerably

*In the data presented at the Scientific Exhibit of the 109th Annual Meeting of the American Medical Association, Miami Beach, Florida, June 13-17, 1960, sexes and ages were combined in the comparative percentages.

TABLE I. PERCENTAGE DISTRIBUTION OF DEATHS BY CAUSE AND SEX FOR WHITE PERSONS, TWENTY YEARS OF AGE OR OLDER
(Michigan and U. S. 1950, and Present Study)

Cause of Death	Present Study			Michigan			United States		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Arteriosclerotic and degenerative heart disease (including coronary heart disease) (420-422)*	40.9	25.8	38.3	35.6	26.5	31.9	35.8	28.6	32.7
Malignant neoplasms (140-205)	26.2	16.1	24.4	15.0	19.0	16.6	14.6	18.8	16.4
Diseases of the circulatory system (excluding arteriosclerotic and degenerative heart disease) (400-419, 423-468)	6.7	19.4	8.9	10.8	14.7	12.4	11.7	15.2	13.2
Ulcer of stomach and duodenum (540-541)	6.0	12.9	7.2	1.1	0.3	0.8	0.9	0.3	0.6
Vascular lesions affecting the central nervous system (330-334)	6.0	9.7	6.7	10.7	15.2	12.5	10.1	14.1	11.8
Accidents, poisoning and violence (E800-E999)	5.4	3.2	5.0	9.1	5.2	7.5	9.0	4.9	7.2
Diabetes mellitus (260)	0.7	0.0	0.6	1.8	4.0	2.7	1.3	2.7	1.9
Infective and parasitic diseases (001-139)	1.4	0.0	1.1	3.2	1.7	2.6	3.3	1.9	2.7
Influenza and pneumonia (480-483, 490-493)	0.7	0.0	0.6	2.3	1.8	2.1	2.5	2.6	2.6
All other causes of death	6.0	12.9	7.2	10.4	11.6	10.9	10.8	10.9	10.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of deaths	149	31	180	28468	19796	48264	662436	496418	1158854

*Numbers in parentheses refer to the International Statistical Classification of Diseases, Injuries and Causes of Death, Sixth Revision, 1948, World Health Organization, Geneva, Switzerland.
Source of Michigan and United States Data: U. S. Department of Health, Education and Welfare, Vital Statistics of the United States, Vol. III Table 56, 1950.

younger than people dying from arteriosclerotic heart disease in the general population. For example, 49.2 per cent of the white men ulcer patients dying of arteriosclerotic heart disease died before the age of sixty, compared to 27.8 per cent for the State and 25.8 per cent for the entire nation. Striking also is the finding that for all age groupings below 60 years, the percentages of deaths from arteriosclerotic heart disease among the ulcer patients are approximately double those for the general population. This information, coupled with that in Table I intensifies suspicion that some characteristic of ulcer patients, or of their therapeutic regimen, accelerates the atherosclerotic process leading prematurely to death from arteriosclerotic heart disease.

It is noteworthy in Table I that the mortality from malignant neoplasms in the male study group also was increased, the percentages being approximately 75 per cent higher than those for the general population. This observation warrants further study.

Of course, the number of deaths attributed to ulcer of the stomach and duodenum was higher in the patient group, as would be expected.

TABLE III. PERCENTAGE OF DEATHS FROM ARTERIOSCLEROTIC AND DEGENERATIVE HEART DISEASE (INCLUDING CORONARY HEART DISEASE), BY AGE, "FOR WHITE MALES"
Michigan and United States, 1950, and Present Study

Age Group	Present Study	Michigan 1950	U. S. 1950
Under 40	3.3	1.8	1.5
Under 45	8.2	4.4	3.9
Under 50	19.7	9.1	8.3
Under 55	34.4	16.4	15.5
Under 60	49.2	27.8	25.8
Under 65	59.0	41.9	38.9
Under 70	78.7	57.2	54.0
Total white male coronary deaths	61	10,137	237,085

TABLE II. PERCENTAGE DISTRIBUTION OF DEATHS FROM ARTERIOSCLEROTIC AND DEGENERATIVE HEART DISEASE (INCLUDING CORONARY HEART DISEASE), BY AGE, "FOR WHITE RACE"
Detroit, Michigan and United States, 1950, and Present Study

Age Group	Present Study	Detroit 1950	Michigan 1950	U. S. 1950
Under 40	2.9	1.4	1.5	1.3
Under 45	7.2	3.8	3.6	3.1
Under 50	17.4	8.4	7.4	6.4
Under 55	30.4	16.2	13.4	11.9
Under 60	44.9	29.7	22.8	20.3
Under 65	56.5	44.2	35.2	31.7
Under 70	75.4	60.5	49.7	46.0
Total coronary deaths	69	3943	15,390	379,421

Discussion

This study shows that these white male ulcer patients had a proportionate mortality rate from arteriosclerotic heart disease 14 per cent higher than that for white male subjects in the general population. When both sexes and all ages are included, the increase is even greater; but this is undoubtedly due to the preponderance of men in this group. More challenging, however, is the finding that of the male ulcer patients who died of arteriosclerotic heart disease, nearly 50 per cent died under the age of sixty—a 77 per cent increase over the corresponding figure for Michigan in 1950, and a 91 per cent increase over that for the United States in 1950. We are not presenting similar data for the female ulcer patients because in this study only eight female deaths were due to arteriosclerotic heart disease. However, the median age at death for the female ulcer group was sixty-eight years, compared to a median age of seventy-two years at death from arteriosclerotic heart disease for white women

in Michigan, and a median of seventy-seven years for the comparable group in the U. S. as a whole.

It should be stressed that direct, quantitative comparisons between age at death for patients in this study and city, state, and national figures, must be made with caution. The patients in the present study differ from the broader population groups with respect to many factors, not the least of which is the fact that our ulcer patients came from a predominantly Jewish ethnic group in the northwest section of Detroit. Is it possible that we are dealing with a patient-group in whom both peptic ulcer and arteriosclerotic heart disease are common disorders? A recent study by Epstein and his colleagues[17] tends to show that certain Jewish groups have an increased prevalence of arteriosclerotic heart disease which may be due to environmental or genetic factors, or a combination of both. A study by Toor, et al[37] among recent (within past five years) and early (over twenty years ago) Yemenite (Jewish) immigrants in Israel does not support the view that these differences have a genetic basis. These authors showed that "the atherosclerosis mortality rate was four times higher for the same age and sex in the early Yemenite immigrants and approached the rate for European Jews. Among the early immigrants, the average income per head was double that on which the latter arrivals were living." It is therefore difficult to explain the high arteriosclerotic heart disease mortality rate in our ulcer patients solely on a genetic basis. It is still possible that the Sippy diets (and perhaps even the frequent uses of high doses of absorbable antacids that were employed by us during the earlier years) may have played some role in the increased risk of arteriosclerotic heart disease observed among our ulcer patients. A study is thus in progress to obtain mortality data from Detroit, using life-table methods and adjusting for age, sex, and race.

Since Hochrein and Schleicher's report of 1941,[14] a number of clinical and postmortem studies or comments have appeared in the literature on the possible relationship of the two diseases in man.[14-16,18-35] Some authors reported a higher occurrence of arteriosclerotic heart disease in ulcer subjects while others failed to find such a difference. When arteriosclerotic heart disease was found it was usually explained by a possible common pathogenesis, that is, common vascular pathology (vascular theory), vagal-vagal reflex from ulcer to heart (neurogenic mechanism), or psychosomatic factors. Since Plotz's report of 1948[15] and Morrison's postmortem study of 1951[19] a number of studies have incriminated the high fat content of Sippy ulcer diets as tending to promote arteriosclerotic heart disease among ulcer patients.

Recently Hartroft and his group[35] determined the incidence of myocardial infarcts in three groups of autopsied patients from ten medical centers in the United States and five in Great Britain.** The three groups comprised: (a) patients with chronic peptic ulcer who had a history of treatment with Sippy or other high-milk diets, (b) patients with chronic peptic ulcer whose histories did not indicate that their therapy included the use of milk or creams ("non-Sippy-ulcer" patients), and (c) non-ulcer patients. They reported that,

In the U.S.A. Institutions: (a) "The incidence of myocardial infarcts was more than twice as high in the ulcer patients treated with Sippy diet than it was in either of the other two groups. The difference in each case was statistically highly significant. (b) There was no significant difference in the incidence of myocardial infarcts between the ulcer patients not treated with Sippy diet and the non-ulcer control."

In the Great Britain Institutions: "Differences and similarities of the same degree were noted among corresponding groups from Great Britain."

Additional clinical and statistical studies are currently in progress in attempts to obtain more precise information concerning arteriosclerotic heart disease in our ulcer patients. Until these studies or those of other workers become available, no really conclusive position can be taken. However, the present observations serve to raise the questions: Do patients with peptic ulcer have an increased risk of premature death from arteriosclerotic heart disease? If yes, do the conventional high-fat ulcer diets play a role in the development or acceleration of coronary atherosclerosis, or both, and if so, is it the sole role?

Since strong circumstantial evidence exists that saturated fatty acids in food are possible causative factors in human atherosclerosis, Alice Beecher and Marion E. Mann, dietitians at Sinai Hospital of Detroit and Harper Hospital, Detroit, respectively, analyzed the Sippy and Modified Sippy ulcer diets commonly in use in these institutions, with special emphasis on fatty-acid contents.[36] We have employed these diets in the

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****U.S.A. Medical Centers:** Barnes Hospital, St. Louis; Massachusetts General Hospital, Boston; Charity Hospital of Louisiana, New Orleans; University of California, San Francisco; Western Reserve University, Cleveland; University of Illinois, Chicago; Johns Hopkins Hospital, Baltimore; Mt. Sinai Hospital, New York; Boston City Hospital, Boston; Cook County Hospital, Chicago.

Great Britain Medical Centers: Bristol Royal Infirmary, Bristol; Western Infirmary, Glasgow; Royal Victorian Infirmary, Newcastle-on-Tyne; St. Mary's Hospital, London; British Postgraduate Medical School at Hammersmith Hospital, London.

dietary regimen of our ulcer patients during the course of years. The ratios of polyunsaturated to saturated fatty acids in these diets ranges from 0.12 to 0.41. These diets tend to elevate serum cholesterol levels. While a relationship between serum cholesterol levels and arteriosclerotic heart disease in man is not definitely proved and much remains to be learned, we nonetheless modified our ulcer diets by decreasing the saturated fatty acids and increasing the polyunsaturated fatty acids contents. These diets are referred to as U.F.A. (Unsaturated Fatty Acids) ulcer diets. In them the ratios of polyunsaturated to saturated fatty acids range from 2.3 to 3.4 and the diets tend to lower serum cholesterol levels in patients with peptic ulcer. At present we are employing the U.F.A. ulcer diets only with "high-risk-coronary" ulcer patients. Whether lowering of serum cholesterol levels in individual ulcer subjects will reduce the risk of arteriosclerotic heart disease remains to be proved by long-term observations of large numbers of such patients.

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Chronic Arterial Ischemia

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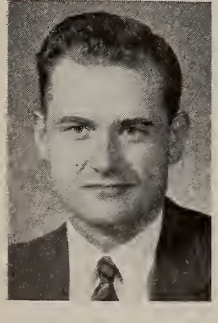
ARTERIOSCLEROSIS is commonly considered a generalized disease, but often will exhibit itself as an advanced process in a localized area. It may involve an artery supplying the brain, heart, kidney, mesentery, or extremity. In each case symptoms and changes are a result of chronic arterial ischemia.

Most commonly an arteriosclerotic plaque will develop at the point where an artery originates from the aorta or major bifurcation. The origins of the internal carotid artery, vertebral artery, coronary arteries, renal arteries, and common iliac arteries are the common sites for development of early disease. With progressive stenosis at these sites there is a slowing of blood flow and drop of blood pressure distally. Symptoms develop because of oxygen deficiency. The slow flow also is a precursor of recurrent and progressive thrombosis leading to necrosis.

All symptoms are likely to be somewhat aggravated by states of general hypotension which may occur at night, under sedation, or with anesthesia. Strokes commonly occur at night. Night pain in the calves occurs when arterial pressure is down. Such pains are often aggravated by use of hypotensive drugs. Sludging of the blood occurs under these circumstances and cell clumps do not break up as easily as they must in order to flow into the capillary-sized vessels. At this level, desludging agents and anticoagulants may be of some help.[4]

Each organ or extremity has characteristic signs of early-progressive and far-advanced disease. Early diagnosis is desirable since it may make possible a preservation of function through the medium of endarterectomy or arterial bypass grafting.



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Lower Extremity Ischemia early manifests itself by claudication which is characterized by development of weakness, tiredness, or cramps after walking. For any one person this is a specific distance. After resting a couple of minutes, or "window shopping," he may again walk a similar distance. This claudication will develop in the calf with a superficial femoral artery block, and in the calf and thigh with a common iliac artery obstruction. Hip claudication usually means bilateral common iliac artery or distal aortic occlusion as characterized by the Leriche syndrome.[2] Usually the occlusion is sufficient to obliterate distal pulses. On occasion, pulses are present in the common femoral region with a partial stenosis in the common iliac artery which is sufficient to cause claudication. In other words, a palpable pulse does not mean that there is an absence of significant proximal disease. Atrophy, coldness, numbness, night pain, cyanosis, and paralysis may all be present prior to development of ulceration or gangrene. When gangrene does develop, it is usually on or about the toes. A proper evaluation by aortography and bilateral femoral arteriography will predict the feasibility of surgery. There must be a patent distal artery beyond a segmental artery obstruction. Commonly, with the re-establishment of adequate circulation, all symptoms can be elimited. Usually a local amputation of the toe or toes is necessary to eliminate pain associated with necrosis, but with an adequate blood supply, healing is now possible. Once mumification is present, little can be done to re-establish blood flow.

Upper Extremity Ischemia is uncommon but does occur and may be characterized by the absence or weakness of a pulse, correlated with tingling and cyanosis of the fingers. Hanging up clothes or working with the hands up in the air may be particularly painful. A scaleneus anticus syndrome must be considered; however, a stenosis at the origin of the subclavian or innominate vessels may be present. A thrombosis in

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the palmar arch will give similar symptoms, although is less amenable to blood vessel surgery.

Cerebral Ischemia[1] should be suspected with a history of transient numbness of an extremity, slurring of the speech, syncope, or any degree of stroke. One or more carotid or vertebral arteries may be stenotic or occluded sufficiently to slow the blood flow to the Circle of Willis. This may precipitate the thrombosis of a cerebral branch because of low blood pressure and slow flow. A hemic murmur may commonly be heard over a stenotic internal carotid artery. Occlusive pressure over the opposite artery may bring on syncope or slurring of speech. Hypertension has on occasion been associated with cerebral ischemia and relieved on re-establishment of blood flow. A complete angiographic study should be done of both carotid and vertebral arteries. If any stenosis is discovered in either the vertebral or internal carotid arteries, re-establishment of blood flow will be helpful in preventing progression, or helping in revascularization of the ischemic area of the brain.

Cardiac Ischemia is well recognized as angina or in a more permanent state, as coronary thrombosis. Visualization of the coronary arteries by retrograde aortography is becoming practical. Coronary artery endarterectomy and thrombectomy will undoubtedly become practical in the near future, particularly with the use of the cardiac bypass pump.[3]

Renal Ischemia is probably much more common than formerly considered. A characteristic stenosis at the origin of the renal artery as it leaves the aorta is not uncommon with associated hypertension in the thirty-five to sixty-year age group. Direct renal arteriography should be considered since renal ischemia resulting in the Goldblatt type kidney can often be recognized. Endarterectomy or arterial graft to the side of the renal artery involved can replace the blood supply to the kidney and in many cases reduces the hypertension.

Mesenteric Artery Ischemia is not rare but is relatively difficult to diagnose. Chronic ischemia may be suspected in a patient who has marked malnutrition without an obvious cause. The symptom of abdominal angina characterized by abdominal pain following meals may lead one to consider the diagnosis of mesenteric artery stenosis. When an acutely involved abdomen is opened in a patient of the older age group and no definite diagnosis can be established, one should palpate the superior mesenteric artery to establish the presence or absence of pulsation because mesenteric artery ischemia is to be considered. Transplanting of the artery, graft, or endarterectomy can re-establish normal blood flow and prevent necrosis.

Summary

Symptoms are important in suspecting arterial ischemia. The area of involvement can usually be localized and the diagnosis fully established by arteriography. Recently-developed iodine solutions for the visualization of the arterial system are safe and can be used with practically complete safety. Surgery can in most cases re-establish blood flow and function to the part or organ.

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There are times when fear is good. It must keep its watchful place at the heart's controls. There is advantage in the wisdom won from pain. Should the city, should the man rear a heart that nowhere goes in fear, how shall such a one any more respect the right?—AESCHYLUS—*"The Eumenides."*

Fundamental Considerations in Practical Cardiology

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THE physiologic and biochemical basis of disturbances of the heart and blood vessels has become so involved that it is difficult for the practicing physician to follow some of the more recent advances in this field. This article attempts to describe some of the physiologic mechanisms underlying the more common clinical problems encountered in cardiology.

Congestive Heart Failure and Digitalis

The basic mechanism of heart failure is still poorly understood. This results from difficulties in relating factors involved in its production to the multiple manifestations. Although the heart is the organ primarily involved, the clinical signs and symptoms result from disturbances in electrolyte and water balance. In addition to the heart, the kidneys, the adrenals, and the pituitary play important roles.

It is a curious fact that in most types of heart failure, histologic as well as biochemical changes in the heart muscle are absent. Studies on cardiac metabolism in patients with the more common types of heart failure have shown no metabolic abnormalities within the heart muscle. However, some types of heart failure, such as those resulting from anoxia, hyperthyroidism, and beri-beri are accompanied by metabolic alterations in the myocardium. In anoxia, glycolysis is present; in hyperthyroidism, the myocardial oxygen consumption may be increased and the disturbance is probably located in the organelles of energy production, the mitochondria. In beri-beri heart disease, the underlying defect is the result of a deficiency of thiamine pyrophosphate, thus impeding the utilization of lactate and pyruvate.

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The effect of failure of the heart on the circulatory dynamics is better understood. It has been known since Starling that the heart performs differently when it is failing, or as Starling has called it, it has a different tone. A heart that is fresh and a heart that is tired are not on the same performance curve, but the question as to the cause of the different cardiac tone still remains to be explained.

How does myocardial failure produce the clinical manifestations with which we are familiar? What is the link between the failing myocardium and edema? An answer to these problems has been sought in an understanding of the way the organism handles salt and water in congestive failure and in the influence of endocrine factors. The latter is primarily concerned with the secretion of aldosterone and of antidiuretic hormone. Aldosterone influences renal sodium and potassium excretion. The secretion of the hormone may be influenced by venous pressure, by neurogenic factors, and by ACTH. Normally, sodium deprivation results in increased urinary excretion of aldosterone and probably an increased secretion by the adrenals. Increase in the pressure in the inferior vena cava above the level of the renal veins produces also an increase in aldosterone secretion.

As far as the antidiuretic hormone (ADH) is concerned, under normal conditions, there is suppression of ADH secretion by the pituitary if the fluid volume increases. It has been known for a long time that changes in blood volume can be accompanied by alterations in urine flow. Small diminutions in plasma volume can lead to oliguria and small transfusions to diuresis. ADH seems to be released in response to a decrease in the effective osmotic pressure of the extracellular fluid, in response to a decrease in the effective extracellular fluid volume, and in response to a variety of physiologic stimuli, pharmacologic agents, and physiologically active substances. It is even possible that the secretion of antidiuretic hormone is at least

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in part reflexly regulated and that the receptors responsible for the stimulation of the afferent arch of this reflex are located in the left atrium.

In congestive failure, there is a perversion of these normal regulatory volume mechanisms. There is both retention of sodium and an even more disproportionate retention of body fluids, leading to edema. There is evidence that both edematous and non-edematous cardiac patients have an increase in exchangeable sodium in relation to total body water as compared to normal. The role of aldosterone in congestive failure is by no means clear. Even if it could be demonstrated that aldosterone secretion in congestive failure is increased, it still would leave us in the dark as to the mechanisms which are responsible for the increased aldosterone secretion in the presence of increased body fluids. The situation as pertains to the secretion of antidiuretic hormone is equally unsettled. There is as yet no proof that secretion of ADH is increased in congestive failure. Under normal physiologic conditions, as outlined above, an increase in the body fluids leads to a diminution in posterior pituitary secretion. In heart failure, this regulatory mechanism does not appear to function. The assumption has been made that in heart failure the distribution of volume compartments is such that there is a decrease in some critical areas, but all reports which purport to demonstrate large amounts of ADH in the urine in congestive failure must be viewed with caution.

The basic mechanism of digitalis action also remains a mystery. We have learned that the main action of cardiac glycosides is on the heart rather than on the kidney, and that in all likelihood, the digitalis glycosides act on the contractile elements of the heart muscle by regulating the sodium and potassium concentration within the cell. The latter effect is responsible for the electrocardiographic alterations seen following the injection of glycoside. There is as yet no definitive answer on how cardiac glycosides affect contractility of the heart muscle, although it is likely that the potassium loss from the cell is related to the increase in contractility. The observation that a diminution in intracellular sodium also enhances contractility has led some to believe that the contractility of muscle proteins is affected by the total intracellular monovalent cation concentration relative to the amount of protein within the cell.

Coronary Heart Disease

During the last thirty-five years it has become evident that coronary heart disease appears in many disguises, such as angina pectoris, acute coronary occlusion, myocardial infarction, left-sided heart failure including cardiac asthma, combined left-sided and right-sided heart failure, heart block and other disturbance in cardiac rhythm, gastrointestinal and substitution symptoms, and in sudden death. Within the last years we have become more and more conscious of the connection between coronary artery disease and atherosclerosis. It could be shown that there are many types of lipids such as esterified and non-esterified fatty acids, phospholipids, and cholesterol which may have entirely different biochemical and physiologic function. It is known that the metabolism of lipoproteins is regulated by hereditary hormonal and dietary factors. Atherosclerosis, particularly of the coronary arteries, is much more frequent in men than in women, and the administration of estrogens causes marked alterations in the concentration of individual plasma lipoproteins. It has also been shown that unsaturated fatty acids have distinct cholesterol-lowering properties. However, it has yet to be demonstrated that ingestion of unsaturated fatty acids has any beneficial effect on coronary artery disease. There is still no incontrovertible proof of the indictment that atherosclerosis has a dietary origin. As far as tests on humans are concerned, this is still largely circumstantial evidence based on the frequent association of fatty diets with atherosclerosis and of hyperlipemia with atherosclerosis. The trend now is to consider that the diet (but neither the presence nor absence of cholesterol in the diet) influences the blood cholesterol level in man. Since cholesterol is readily synthesized in the body, it is probable that consumption of the usual cholesterol-containing foods does not add sufficient cholesterol to the total body content to warrant exclusion from the diet. All that can be said at the moment with certainty is that the role of nutrition and endocrines in atherosclerosis of the coronary arteries cannot be ignored. Rothlin, in this laboratory, recently discovered by the use of gas chromatography, that both the human and the dog heart *in vivo* extracts preferentially oleic acid, an unsaturated fatty acid. This does not preclude utilization of other fatty acids; however, since oleic acid is not converted into other fatty acids but is broken down to acetate, these results probably represent true utilization of this unsaturated fatty acid by the heart muscle for energy production.

An accurate simple method to measure coronary blood flow in man would be of great aid in many clinical conditions. The effect of surgical procedures to improve coronary flow and the response of normal and abnormal coronary vessels to coronary vasodi-

lators and to the stress of exercise could be evaluated. Unfortunately, simple clinical methods for the measurement of coronary flow in man do not as yet exist. The nitrous oxide method which necessitates coronary sinus catheterization furnishes reasonable accurate data on coronary flow, but its principle practical disadvantages are that one cannot perceive rapid changes in coronary blood flow and that the procedure is cumbersome. All attempts to determine coronary blood flow by other means have so far been unsuccessful, although it is yet possible that despite all difficulties encountered with the use of radioisotopes, these new tools will eventually furnish a workable method for determination of coronary blood flow in man.

However, valuable knowledge has been gained from the use of the nitrous oxide method for the measurement of coronary blood flow. For example, it has been found that it is primarily the coronary flow which responds to the oxygen needs of the heart, and that alterations in blood pressure rather than cardiac output result in increased myocardial uptake of oxygen through increased coronary blood flow. An increase in heart rate has similar effects, although tachycardia, in paralleling coronary flow, does not change myocardial oxygen consumption per beat. The effect of a sudden increase in mean aortic pressure on myocardial oxygen consumption and coronary flow suggests that the work which the heart performs in overcoming the resistance of the arterioles is one of the more important factors which determines the usage of oxygen by the heart. One may use the ratio of myocardial oxygen consumption per second of systolic contraction to cardiac work per minute, in order to differentiate the influence of hemodynamic and non-hemodynamic factors on myocardial oxygen consumption. Any deviation from the normal ratio suggests that non-hemodynamic factors are involved. Nitroglycerin, for example, doubles myocardial oxygen usage and coronary flow in normal individuals without changing left ventricular work. Since the ratio of myocardial oxygen consumption to work of the heart doubles, the changes in myocardial oxygen consumption appear not to be the result of alterations in hemodynamics, but rather of increased demands for oxygen on the cellular level.

In line with this discussion, the effect of cigarette smoking on the coronary circulation is of interest. In patients with and without coronary heart disease, smoking of two cigarettes causes an augmentation of heart rate, systemic arterial pressure, and of left ventricular work; this response is greater in patients with disease of the coronary arteries. Despite these hemodynamic alterations, neither normals nor coronary patients have a significant change in coronary blood flow so that myocardial oxygen usage remains virtually identical with the pre-smoking value. Thus, there is no evidence of myocardial ischemia during smoking. In all the patients studied, the ratio of work of the heart over its oxygen consumption increases. Experience has shown that increase in this ratio can be maintained for some time without cardiac disfunction.

Cardiac Arrhythmias

An understanding of the electrophysiologic mechanisms underlying various cardiac arrhythmias has been greatly furthered by the recording of the electrical potential in a single heart muscle cell (ventricular transmembrane potentials); thus, it has been shown that at the onset of ventricular fibrillation the action potentials of individual heart muscle cells are only slightly irregular, with little change in amplitude. There is therefore some element of synchronism between action potentials of neighboring fibers during this period. Later, ventricular fibrillation is characterized by irregular action potentials of varying amplitude, but even during later stages of fibrillation, simultaneous recording of electrical activity from two fibers on the ventricular surface revealed partial synchronism of action potentials when the fibers were in close proximity. Thus, the disorganization of the ventricular fibers during fibrillation is not total.

Myocardial anoxia produces cardiac arrhythmias because of changes in the relative distribution of potassium and calcium. The most pronounced effect of changes in potassium is on the magnitude of the resting membrane potential and most alterations in cardiac activity associated with an excess or deficiency of this ion can be explained on the basis of known effects of the altered resting potential. Large concentrations of calcium elevate stability of the fiber membrane, with an increase in both rhythmity and excitability, but low calcium has the opposite effect. Marked sodium depletion decreases both the rate of rise and magnitude of the action potential in accordance with the ionic hypothesis of electrical activity.

The biochemical changes in heart muscle which accompany marked increase in heart rate (300 beats and over) consist in a rapid activation of the enzyme which is responsible for the breakdown of glycogen, phosphorylase *a*, and in definite anaerobiosis of the heart muscle as evidenced by destruction of glycogen and accumulation of lactic acid.

The preceding discussion has indicated that there is a long way to go before we are able to understand the basic mechanisms underlying the common cardiac disorders. A search into these basic aspects of heart disease is rewarding, because from it may develop a sounder concept of heart disease and a more rational treatment.

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Sudden Deaths in Westchester County

Coronary artery disease was found to be the causal factor in 91 per cent of 463 "sudden deaths" of white men in Westchester County, New York. However, researchers said the incidence of coronary artery disease as a cause of sudden death could range from less than 60 per cent to more than 90 per cent, depending on the type of community studied and the definition of sudden death.

David M. Spain, M.D., Victoria A. Bradess, M.D., and Charles Mohr, Brooklyn, N. Y., reported on a ten-year study of 1,329 autopsies performed in cases of sudden, unexplained natural deaths in the September 24 issue of the *Journal of the American Medical Association.*

The 463 men all died within an hour after the onset of symptoms. Autopsies showed they suffered heart attacks caused by hardening of the coronary arteries which surround the heart. Of sixty-six white women who died of unexplained natural causes within an hour, only 52 per cent suffered heart attacks caused by coronary hardening.

The authors pointed out that the pattern of disease in a community can influence the relative frequency of coronary artery disease as a cause of sudden death.

"The results of this study show that in any particular community the relative frequency of the various causes of 'sudden death,' will depend on the definition of sudden death, the racial and sexual composition of the cases, and the general disease pattern of the community," they concluded.

"Depending on what constitutes the definition of sudden death, the frequency of coronary occlusion as a cause of such fatalities in caucasoid men varies from under 60 per cent to over 90 per cent."

The Westchester study also showed that the overall frequency of brain hemorrhage as a cause of sudden death, regardless of the duration of the fatal episode, was "insignificant compared to coronary artery disease."

D-Thyroxine in the Treatment of Hypercholesterolemia

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THE DEXTRO ISOMER of thyroxine* has been reported to have a cholesterol-lowering effect without stimulation of the basal metabolic rate.[1] If such an effect could be maintained for prolonged periods, the drug might prove useful in treating hypercholesterolemic subjects with or without various forms of vascular disease. Accordingly a study was devised to examine the clinical effects of prolonged administration of D-thyroxine.

Methods

Fourteen human subjects with idiopathic hypercholesterolemia, but without visibly lipemic sera, were selected from patients attending the Hypertension and Vascular Disease clinic of the University of Michigan Hospital. These patients had, in most instances, been under treatment with various regimens for several months to years, prior to the inception of this study. They had previously been instructed, on a moderate low-fat diet, and during the period of the experiments to be reported, were requested not to alter their previous dietary pattern. A few subjects who had been taking sitosterol for long periods prior to the present study, were kept on this regimen in order to maintain a steady state during the observation period. A few individuals who had been receiving other thyroid analogues were changed to D-thyroxine directly in order to compare the effects of this agent with that of other thyroid analogues. The remaining patients had been off treatment for at least two months during which time two or three control cholesterol determinations had been performed.

The studies to be reported may be divided into three general headings: (1) The effect of a continuous dosage of 8 mg. of D-thyroxine daily. (2) The effect of continuous dosage of 4 mg. daily. (3) Comparative effects of D-thyroxine and of various other thyroid analogues on the serum cholesterol.

Observations

Eight-mg. Dosage Schedule.—With a few exceptions to be noted below, the patients with high serum cholesterol levels who had little or no evidence of vascular disease were given D-thyroxine in a dosage increasing within two to four weeks from 2 mg. a day to a sustained dosage of 8 mg. daily which was maintained continuously throughout the study, while the serum cholesterol was determined at intervals of approximately one month. A basal metabolic rate was obtained in the hospital laboratories before and after the maximum dose had been reached. Furthermore, clinical evidence of hypermetabolism was sought at each clinic visit by means of both history and physical examination.

Table I presents a summary of these observations. It will be seen that, in general, the dose of D-thyroxine was well tolerated and resulted in some sustained reduction in the serum cholesterol. The response varied among individuals and no correlation with clinical condition or protein-bound iodine level could be recognized. The average maximum decrement of serum cholesterol was 21 per cent. Three of the patients maintained a decline exceeding 15 per cent for a period in excess of 227 days.

Except as noted hereafter, side effects were not apparent and no weight loss occurred on the treat-

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ment program. The metabolic rates (except in a few instances to be noted) did not increase above conventional normal values, but it is apparent that there was a slight rise in every instance. This can be seen from the last column in Table I where the net change in basal metabolic rate is recorded. Thus, as in the case of patient E. Kol., the recorded basal metabolic rate before treatment was +17 per cent while the post-treatment reading was +35 per cent. The increment of change was therefore +18 per cent. In every case where it was tested, there was a similar upward shift in the basal metabolic rate.

TABLE I. METABOLIC AND CHOLESTEROL-REDUCING EFFECTS OF D-THYROXINE
Dosage: 8 mg. Daily

Patient	Sex	Mean Control* (mg. Per Cent)	Serum Cholesterol Percentage Change**				Other Observations Net Change In		Remarks
			Max. Per Cent	Day	Final Per Cent	Day	PBI (mg. Per Cent)	BMR Per Cent	
E. Kol (s)	F	433	−26	17	−11	86	—	+18	Thyrotoxic signs
H. Dim.	M	370	−18	25	−16	227	14	+ 5	No symptoms
M. Dim.	F	366	−27	69	−19	229	16	+15	No symptoms
L. Rae. (s)	M	295	−16	160	+21	188	15	—	No symptoms
D. Bal.	F	289	−20	27	−15	229	25	+15	No symptoms
R. Rus. (t)	M	278	−17	139	+ 0	213	—	—	No symptoms
Mean change			−21		− 7				

(s) Denotes patient taking sitosterol before and during study.
(t) Denotes that patient was converted to D-thyroxine from maintenancy therapy with triodothyronine, 75 mcg. per day, which had affected his serum cholesterol, but only slightly.
*Average of two to three determinations prior to therapy.
**From pre-treatment value to final determination after prolonged therapy at 8 mg. per day.

Two patients were unable to tolerate 8 mg. daily because of clinical and laboratory evidence of thyrotoxicosis. Patient E. Kol. (Table I) experienced thyrotoxic symptoms after taking 8 mg. for one month; the metabolic rate increased to a +35 per cent, and the cholesterol fell from 433 to 346 mg. per cent. At a 4-mg. dosage, she has continued to exhibit a cholesterol reduction, ranging between 333 and 385 mg. per cent, together with a normal basal metabolic rate and no evidence of thyrotoxicosis. The other patient, M. Gra. (Table II), on whom a satisfactory basal metabolic rate test could not be performed, developed a typical thyrotoxic tremor, nervousness, and tachycardia after five days of treatment at the 8-mg. level. She was able to tolerate a dose of 4 mg. daily without thyrotoxic effects.

It is difficult to summarize these varying responses to a maintained dosage of 8 mg. daily. It would appear that the metabolic rate in many patients increased slightly, and a few developed thyrotoxicosis. Serum cholesterol tended to fall, and in those who showed a good initial response, no evidence of escape was observed during the period of study.

Four-mg. Dosage Schedule.—Eight patients with evidence of vascular disease, usually angina pectoris associated with high cholesterol levels, were studied at a dosage of 4 mg. daily achieved by a cautious

TABLE II. METABOLIC AND CHOLESTEROL REDUCING EFFECTS OF D-THYROXINE
Dosage: 4 mg. Daily

Patient	Sex	Mean Control (mg. Per Cent)	Serum Cholesterol Percentage Change				Other Observations Net Change In			Remarks
			Max. Per Cent	Day	Final Per Cent	Day	PBI (mg. Per Cent)	BMR Per Cent	Angina	
E. Koll (s)	F	433	−23*	15	−11	127	24	—	—	No side effects
M. Gra.	F	389	−22**	30	−10	218	20	—	—	No side effects**
M. Ret.	M	351	−30	97	−30	97	—	+15	Same	
W. Obe. (s)	M	333	− 9	79	0	160	21	—	Same	
R. Mc N.	M	321	−29	119	−25	182	—	—	Same	
G. Nus. (t)	F	302	− 2	210	− 2	210	—	—	Same	
S. Ciel.	M	288	− 6	99	+12	215	—	—	Same	
A. Sil.	M	416	−23	38	−23	38	12	—	Worse	Therapeutic myxedema for angina
Mean change			−18		−11					

(s) Denotes patient taking sitosterol before and during study.
(t) Indicates treatment with triodothyronine 0.015 mg. daily during "control" period.
*Maximum reduction recorded fifteen days after reducing dosage from 8 mg. daily may represent effect of previous dosage.
**During a brief trial on 8 mg. D-thyroxine this patient developed symptoms and signs of thyrotoxicosis and BMR was elevated. She has tolerated the 4 mg. dosage well.

increase from 1 mg. daily. The average maximal reduction in serum cholesterol in these subjects was 18 per cent (Table II). Again, considerable individual variation appeared. Patients E. Kol. and M. Gra. (the first two, who were unable to tolerate 8 mg. daily) showed a slight but prolonged and significant reduction on the 4-mg. dosage. Patients M. Ret. and R. Mc N. also appeared to show substantial reductions in serum cholesterol on the treatment. Patient M. Ret. had a myocardial infarction some months after therapy was stopped but he exhibited no symptoms of thyrotoxicosis on treatment.

The remaining three euthyroid patients failed to exhibit convincing evidence of sustained reduction in serum cholesterol. Basal metabolic rate determinations were not performed on most of these individuals since an increase in angina pectoris was deemed to be a more sensitive index of hypermetabolism.

No evidence of thyrotoxic symptoms appeared in any of the patients. Angina pectoris, when present, was not increased except in one myxedematous subject who had received I^{131} treatment for angina. He complained of increased pain when given 4 mg. of D-thyroxine daily. This patient had managed to achieve a comfortable balance between myxedema and infrequent anginal attacks on a dosage of 0.045 mg. of desiccated thyroid daily after the I^{131} thyroidectomy. At this time, the cholesterol was 237 to 241 mg. per cent. He agreed to omit thyroid extract for a two-week interval and to return to the clinic for a trial of D-thyroxine. At this time, the cholesterol had risen to 416 mg. per cent. He was started on 4 mg. daily; after one week, the metabolic rate rose to a —25 per cent, and the cholesterol fell to 324 mg. per cent. He had no complaints. However, eleven days later when the cholesterol had been further reduced to 241 mg. per cent, while the basal metabolic rate was still at a —22 per cent, he complained of a definite increase in the frequency of angina. When placebo medication was substituted, the pain was relieved, but when a dose of 4 mg. of D-thyroxine was restored for a two-week period, the angina became quite severe. At this time, the cholesterol was 237 mg. per cent, but the metabolic rate had risen to —9 per cent. The patient was taken off of all thyroid medication. After two months the basal metabolic rate had fallen to —39 per cent and the serum cholesterol had risen to 425 mg. per cent. There was

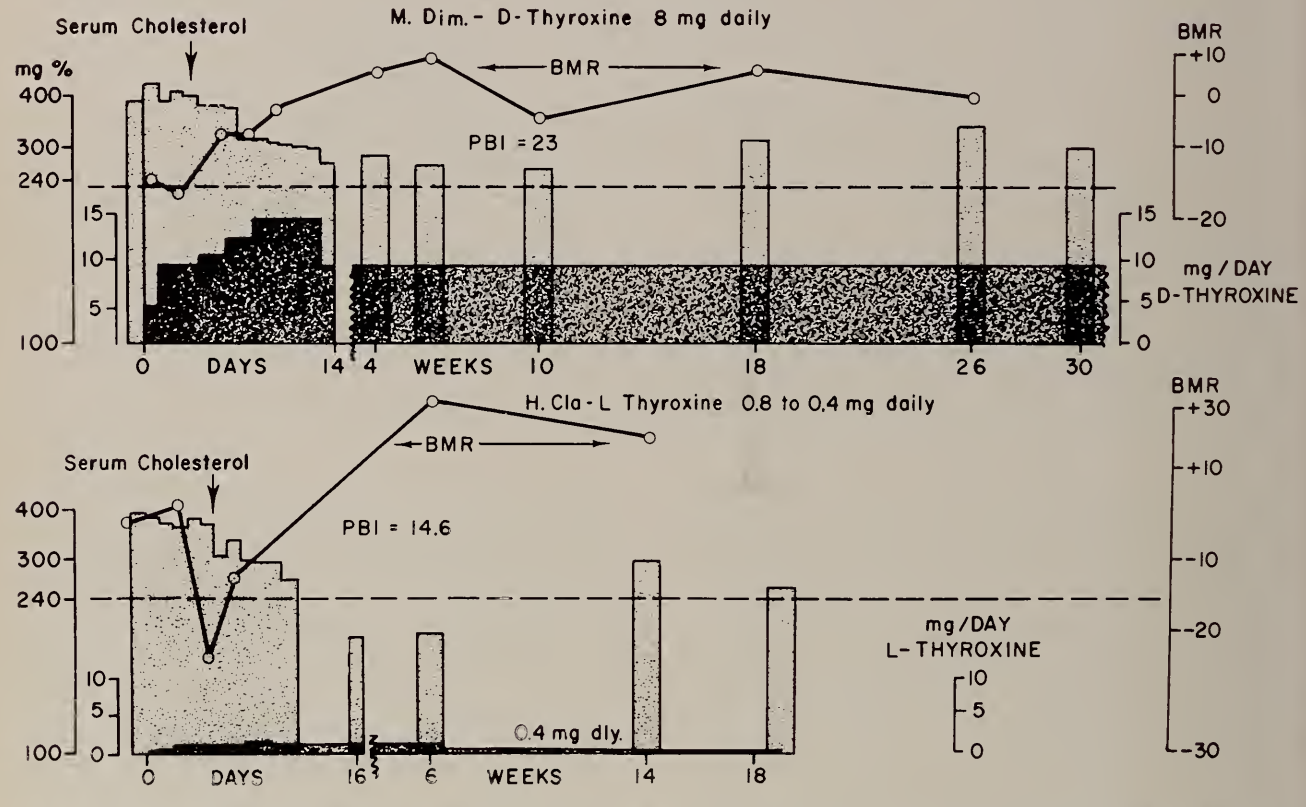


Fig. 1. Changes in BMR and serum cholesterol on D-thyroxine and L-thyroxine in two sisters with familial hypercholestrolemia.

again clinical evidence of myxedema. Evidence for a calorigenic effect of D-thyroxine in this case, seems incontrovertible.

Comparison of D-thyroxine with Other Thyroid Analogues.—Two sisters were selected for study.* One received 8 mg. of D-thyroxine per day while the other was given 0.8 mg. of L-thyroxine (Fig. 1). Patient M. Dim., who received 8 mg. of D-thyroxine, had a clear-cut fall in serum cholesterol and a gradual upward shift of the basal metabolic rate but never to toxic levels. Her sister, patient H. Cla., who was given 0.8 mg. of L-thyroxine daily, had a somewhat steeper fall in serum cholesterol and exhibited a definite rise in metabolic rate which reached the clinically toxic level after about six weeks. On a reduced dosage of 0.4 mg. per day her serum cholesterol continued to exhibit a greater reduction when compared to the decline exhibited by her sister taking 8 mg. of D-thyroxine daily. Thus, it would appear that the initially estimated ratio of activity between the two isomers of 10 to 1 was wrong and that 15 to 1 would have been closer to producing comparable metabolic and cholesterol depressing effects.

Finally two normal men were given small doses of D-thyroxine on the assumption that if one of the drugs had a differential effect on cholesterol metabolism it might be detectable by a difference in response at a low-dose level. One subject received L-thyroxine in a dosage of 0.25 increasing to 0.35 mg. daily, over a period of forty-four days. There was a drop in the serum cholesterol to 184 mg. per cent at the end of this period with a slight rise after stopping treatment. It appeared that a minimal hypocholesterolemic effect had been produced. On a dosage of 4 mg. of D-thyroxine per day the other subject exhibited a drop from 218 to 185 mg. per cent, in his serum cholesterol. Despite continuing to take the drug, the cholesterol rose again to 218 mg. per cent and it is therefore questionable whether a minimal effect was obtained in this subject. Again, the l-isomer in one-tenth the amount of the d-isomer appeared to have a slightly greater clinical effect.

*The authors wish to express their appreciation to Dr. H. R. Mayberry, Bryan, Ohio, for the referral of these patients.

Summary

D-thyroxine in dosage of 8 mg. daily appears to exert a moderate cholesterol-depressing effect in hypercholesterolemic euthyroid subjects so that a significant reduction appears in at least 50 per cent of individuals so treated. Most of these patients exhibit a slight, but clinically unimportant, rise in basal metabolic rate.

A 4-mg. dose level is tolerated by patients with angina pectoris but a clinically significant reduction in serum cholesterol is not as frequently seen. In one myxedematous subject, even the 4-mg. dose caused an increase in the angina pectoris, and significantly raised the basal metabolic rate.

It is therefore concluded that treatment with D-thyroxine is not likely to prove useful in reducing serum cholesterol in patients with angina pectoris. However, the drug may be helpful in reducing serum cholesterol in patients with idiopathic hypercholesterolemia without angina pectoris and to be effective it should be given in a dosage of 6 to 8 mg. daily.

Reference

1. Starr, P.: Depression of the serum cholesterol level in myxedematous patients by an oral dosage of sodium Dextro-thyroxine which has no effect on the basal metabolic rate or electrocardiogram. J. Clin. Endocrinol., 20:116, 1960.

It has been asserted, by one who was laboring under mental derangement, that the only difference between the sane and the insane, is, that the former conceal their thoughts, while the latter give them utterance. This distinction is far less erroneous than might generally be supposed, and is not destitute of analogy to the remark of Talleyrand, that "language was invented for the purpose of concealing thought."—PLINY EARLE.

The Heart in Industry

Louis J. Cantoni, Ph.D.
Detroit, Michigan

IN 1959, according to the American Heart Association, heart and circulatory diseases took 877,000 American lives. Thus heart and related ailments accounted for more deaths than all other causes combined. It is estimated that at least 10 million Americans have cardiac conditions, resulting in a work loss of 69 million man-days annually. This lost time represents more than a billion dollars in unearned income.

Can cardiac patients work? What can be done to conserve years of investment in educational preparation and job skills? On November 13, 1959, at a statewide meeting of the Michigan Heart Association held at Wayne State University in Detroit, several discussion groups addressed themselves to these questions. Following are key thoughts and recommendations that came out of this conference on the heart in industry:

1. Vocational rehabilitation should begin with diagnosis, not after a person's medical problem has been solved. This points up the need for (1) guidance services in schools, and (2) rehabilitation services from employers and community agencies, both public and private.

2. Medical and vocational rehabilitation can be implemented not only in large urban rehabilitation centers, where work capacity may be determined quite readily, but also in general hospitals, and by private physicians and school, community health, and guidance personnel. Whenever feasible, the rehabilitation process should be initiated and carried out where the patient or client is. The majority of those who have heart disease can be served adequately by their family doctors if the doctors will give selective placement agencies an evaluation of patients' functional capacity.

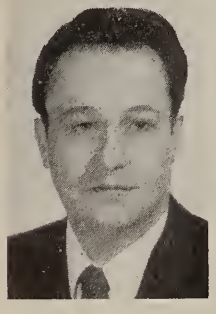
3. People with cardiovascular disease, whether homemakers, farmers, office or factory workers, should know the energy requirements of various tasks. They should be able to relate calorie per minute expenditures on various kinds of jobs to the severity of their own heart conditions. Work simplification units, such as that sponsored by the Michigan Heart Association at Wayne State University, help cardiac housewives to know the energy requirements of various tasks in the home. Homemaking classes, where non-cardiac husbands are also welcome, cover such topics as body mechanics, kitchen work, cleaning, and laundry.

4. A graded activity program, incorporating both physical and occupational therapy, aids return to maximum functioning. The place for the inception of such a program is the hospital.

5. Ultimately, the best work-tolerance test is a time test, with opportunity to experience the demands of various assignments. Graded exercises stimulate collateral circulation so that new coronary arteries feed blood to the heart.

6. When a worker might be placed on a physically demanding job, it is useful to have an impartial estimate of his ability to work. Cardiac work classification, for the 20 per cent who should have it, calls for a team approach employing, ideally, several specialists: industrial physician, psychiatrist, industrial nurse, counseling psychologist, medical social worker, vocational counselor. This does not mean that other specialists are absent from the picture. The services of a cardiologist are of course required. Physical and occupational therapists, and other specialists, may also make a contribution.

7. Physicians as well as non-medical specialists must remember that patients with severe heart condi-



THE AUTHOR
Louis J. Cantoni, M.D.

Doctor Cantoni is Associate Professor of Education and Coordinator of the Rehabilitation Counselor Training Program at Wayne State University, Detroit.

tions may want to work whereas those with minimal damage may not be so motivated. No two individuals respond to chronic illness in the same way, therefore each specialist will want to contribute not only his skill but also a tempered optimism in his efforts with cardiac patients.

8. Organized labor objects to waivers which remove employer responsibility in the employment of cardiac patients as well as others of the physically disabled. Sometimes, however, a waiver of rights to workman's compensation may seem desirable from the standpoint of the employe. In any case, waivers should be based on findings of a team of specialists in heart disease and rehabilitation.

9. Legislation may be needed to limit employer liability when heart attacks occur on an employer's premises. The concern here is with first disablements, not second injuries. An authority should be set up to establish degrees of impairment and of concomitant liability in cardiac cases.

10. A team of interested professional persons should help prepare a medical, educational, social, and vocational program for a cardiac child from the time he is known to have heart disease to the time that he has suitable job placement or is successfully habilitated. During grade and high school years such a team should include, at least, the child's parents, physician, nurse, teacher, and counselor. A cardiac child should be encouraged early to acquire attitudes, knowledges, and skills that ready him for jobs he can do.

The Doctor's Role

Perhaps it is not possible to solve all the problems of the chronically ill. No doubt some cardiac patients must settle for less. With them it is a matter of learning to live with restrictions imposed by disability. Of the 85 per cent who survive a first heart attack, however, 75 per cent return to work for their old employers, usually at the same jobs they held before their heart attack.

In a nation in which 5 per cent of the working population have heart disease, and in which 400,000 people with coronary heart disease are being added to the labor market yearly, doctors can play an important role by knowing and appreciating not only the physical limitations but also the personal and vocational problems of cardiac patients.

Michigan Heart Association Offices

Two Regional Offices of MHA have moved to new quarters recently and a new Regional Office has been opened. The Western Regional Office has moved to new quarters at 311 Sweet Street, N.E., in Grand Rapids providing needed additional space. The Northern Regional Office has also moved to larger quarters in the same building in Traverse City. The newly organized Southeastern Regional Office is housed in the same building as the Central Office in Detroit.

CENTRAL OFFICE:
MICHIGAN HEART ASSOCIATION
3919 John R St.
Doctors' Building—Room 402
Detroit 1, Michigan
TEmple 1-8550

SOUTHEASTERN OFFICE:
MICHIGAN HEART ASSOCIATION
3919 John R St.
Doctors' Building—Room 404
Detroit 1, Michigan
TEmple 1-4955

EASTERN OFFICE:
MICHIGAN HEART ASSOCIATION
314 West Third Avenue
Flint 3, Michigan
CEdar 3-8605

NORTHERN OFFICE:
MICHIGAN HEART ASSOCIATION
T. C. Professional Building
223 Grandview Parkway
Traverse City, Michigan
WIndsor 6-9524

WESTERN OFFICE:
MICHIGAN HEART ASSOCIATION
311 Sweet Street, N.E.
Grand Rapids 5, Michigan
RIverside 2-2529

HEART BEATS

(This material is provided by the Michigan Heart Association)

New Staff Appointments

Abraham Brickner, M.S.W., assumed the duties of Executive Director of MHA on July 5. Long identified with social and health agency fields, Mr. Brickner resigned as Executive Director of the Michigan Chapter of the National Multiple Sclerosis Society to take the MHA position. He will be in charge of administration of Heart Association programs and coordination of activities of the four Regional Offices.

Mr. Brickner is a graduate of Wayne State University, and has done post graduate work both at Wayne and the University of Michigan. He received his Master's degree in Social Work from Wayne in 1951. Currently a lecturer in the School of Social Work at Wayne State, he also serves as graduate student supervisor there and at the University of Michigan.

Charles W. Caldwell also joined MHA on July 5, as Director of the Western Regional Office in Grand Rapids. Mr. Caldwell, formerly assistant to the Director of the Safety Council of Greater Lansing, has been responsible for planning and conducting safety programs and directing safety publicity. As Western Regional Director, Mr. Caldwell will carry out programs in community service and heart education and serve as coordinator of Heart Unit activities in the region.

Ralph E. Lewis took on the duties of Regional Director of the newly established Southeastern Region September 12. Mr. Lewis was a Health Educator for the Wayne County Tuberculosis and Health Society. He is a graduate of Michigan State University where he obtained his B.S. degree and also holds an M.P.H. degree from the University of Michigan. He is currently serving a three-year term on the Board of Trustees of Michigan Public Health Association. As Southeastern Regional Director Mr. Lewis will conduct the activities of that area, which includes Wayne, Oakland, Macomb and Monroe counties.

The former Executive Director of the Illinois Association for Mental Health, Donald G. Wideman, has filled the post of Program Director. Mr. Wideman is a graduate of Michigan State University and holds a Master's degree in Health Administration from Wayne State University. He has a wealth of experience in directing health programs gained in several agencies. Mr. Wideman began his duties with MHA October 10.

MICHIGAN HEART DAYS
February 10 and 11, 1961

SCIENTIFIC SESSIONS
Saturday, February 11, 1961
Ballroom—Statler-Hilton Hotel

ANNUAL MEETING OF MEMBERS
NOON LUNCHEON

A.M. Papers:

ALEXANDER S. NADAS, M.D.
Children's Hospital, Boston
"Clinical Diagnosis of Congenital Heart Disease"

EDWARD D. FREIS, M.D.
Veterans Administration Hospital, Washington, D.C.
"Hypertension"

CHARLES K. FRIEDBERG, M.D.
Mount Sinai Hospital, New York
"Diuretics"

P.M. Panels:

"Selected Problems in Cardiology"
RICHARD BING, M.D., *Moderator*

"Developments in Surgical Correction of Cardiac Defects—Including Aortic Stenosis"
ALEXANDER S. NADAS, M.D., *Moderator*

PUBLIC FORUM—Friday, February 10, 1961
8:00 P.M. Rackham Memorial Building, Detroit
Prominent Medical Speaker

Detroit Surgical Association

Abstracts of Papers

(The Journal will present summaries of the papers given at the Detroit Surgical Association's monthly meetings during the past year — with several summaries appearing in each of the fall issues.)

TEN-YEAR EXPERIENCE WITH STAB WOUNDS OF THE HEART.

Vollrad J. VonBerg, M.D., Luigi Moggi, M.D.
Lyle F. Jacobson, M.D., Prescott Jordan, Jr., M.D.
Detriot Receiving Hospital

As early as 1649, Riolenus suggested pericardial aspirations as a treatment in cardiac injuries and, in 1886, Fischer reported 452 cases of such injuries treated by venesection and aspiration with a case fatality of eighty-four per cent. In 1896, Rehn performed the first successful cardiorraphy. Over the years, many series have been presented illustrating the two major philosophies of treatment of cardiac wounds: simple aspiration and surgical treatment. To this controversial subject, we would like to add our experience in which operative intervention has been our treatment of choice.

All patients with the diagnosis of cardiac trauma who were alive on admission are included in this series. Ninety-six of the patients were male and six female; 86 per cent were Negroes and 14 per cent were white. Age distribution followed a normal curve with a peak incidence between thirty-one and forty years. Acute clinical tamponade was present in fifty patients, while the remainder had either hemothorax or hemopericardium of various degrees not sufficiently serious to give acute tamponade. Pericardial aspiration was done on fifty-nine patients, either to confirm diagnosis or relieve tamponade, with positive results in forty-four patients and negative results in fifteen. Eight patients were treated by aspiration alone and in this group one died. The remaining patients with clinical and radiological suspicion of cardiac injury were operated upon even though acute tamponade was not manifest or pericardial aspiration was negative. The locations of cardiac wounds in ninety-two patients operated upon were: right auricle, six; left auricle, six; right ventricle, thirty-nine; left ventricle, thirty-seven; others, nine. Through-and-through lacerations were present in some instances. Five patients had non-penetrating myocardial lacerations and no cardiac injury was found in three. Active bleeding from the cardiac wound was present in fifty-five, absent in twenty-nine, and unknown in eight. Postoperative complications did not differ from those in any large traumatic series. Specific cardiac complications included cardiac arrest at the time of surgery, ten; arrythmia, four; pericardial effusion, eight; and preoperative infarct, two. Interventricular septal defect and aortic-ventricular fistula each ensued once after injury (demonstrated by cardiac catheterization). Postoperative electrocardiograms revealed a subepicardial damage in thirty-four patients, pericarditis in twenty-eight and infarct pattern in nine. The over-all survival rate, including eight patients treated by aspiration alone was eighty-nine per cent. Of the thirteen patients who expired, two died before any treatment should be started, five at the time of operation either from exanguination or cardiac arrest, and six from various postoperative complications.

ISCHEMIA OF THE COLON AS A COMPLICATION IN SURGERY OF THE ABDOMINAL AORTA

Roger F. Smith, M.D. and
D. Emerick Szilagyi, M.D.
Department of General Surgery, Henry Ford Hospital

In surgical procedures on the abdominal aorta, the surgeon often faces the problem of the simultaneous obliteration of the inferior mesenteric artery, and both internal iliac arteries as a necessary technical step in the operations for aneurysm or occlusive disease. In the latter condition, there is small cause for concern since the insidious obliterative process of atherosclerosis provides time for the development of an ample collateral circulation, and a correction of the main occlusive lesion almost invariably assures adequate blood supply to the colon. However, with regard to aneurysms of the distal abdominal aorta, the occasion frequently arises when sacrifice of patent internal iliac arteries, together with the ligation of the inferior mesenteric artery (which is always necessary) may lead to grave consequences. In the past, insufficient emphasis has been placed on the importance of this surgical hazard, partly because it occurs infrequently, and also because, in extensive aneurysmal disease, salvage of the internal iliac artery often seems impossible. Owing to lack of alertness about this problem and because of some unavoidable thrombotic mishaps and unforseen anatomic variations, in the course of the resection of 150 abdominal aortic aneurysms, we observed ischemic complications of this type

ranging in severity from transient mucosal ulceration to massive gangrene on the left colon in thirteen instances.

In this essay, we review briefly these cases, and discuss the pertinent anatomic relationships as well as the methods of prevention and management of the ischemic complications.

A COMPARISON OF THE STANDARD RADICAL MASTECTOMY WITH THE CLASSIC HALSTED

Raymond M. Dion, M.D.
Gary Welsh, M.D., and
Elmer B. Miller, M.D.
Grace Hospital, Detroit

From the files of Grace Hospital, Detroit, 325 cases of carcinoma of the breast were studied. Seven patients were not operated upon, leaving 318 cases for the present report.

Operations were divided in simple mastectomy, radical mastectomy done in less than three hours (standard radical) and radical mastectomy done in three to five hours (in accordance with Halsted's principles). Cases in each division were then classified in clinical groups, A, B, C, D, according to Haagenson's clinical classification, and the five-year survival tabulated for each. It was found that the five-year survival for the operable group of patients (Haagenson's groups A, B, C) was exactly the same (57 per cent) for 128 patients treated by simple mastectomy, and 104 patients treated by standard radical mastectomy. However, in forty-six patients treated by radical mastectomy done in three to five hours and appraised to be of the Halsted's type, the five-year survival was 76 per cent.

It is concluded that the time and efforts spent to accomplish a complete and meticulous radical mastectomy might be *one* of several contributing factors to a better five-year survival.

DIRECT CLOSURE OF INTERATRIAL SEPTAL DEFECTS

Lyle Jacobson, M.D., Prescott Jordan, Jr., M.D., and Vollrad vonBerg, M.D.
Receiving Hospital, Detroit

The last eighteen months' experience with direct closure of interatrial septal defects is reviewed. Forty-one patients were operated upon a total of forty-four times. Thirty-nine had secundum defects, and of these, three were associated with anomalous venous drainage. Two patients with septum primum defects were also operated upon. Hypothermia and cardiopulmonary bypass were each used twenty-two times as the means of obtaining a dry heart. The advantages, as well as the disadvantages, of these two methods are discussed in some detail. The criteria for selecting each method are emphasized.

The important features contributing to the success of hypothermia are enumerated, and they include a narrow temperature range of 31-32° C., a short occlusion time of four to five minutes, the maintenance of respiratory alkalosis, the avoidance of air embolism, and the avoidance of patients with pulmonary hypertension.

There were forty survivals and four deaths in this series. The deaths were confined to the cardiopulmonary bypass group, and this is undoubtedly related to the more advanced and complicated lesion operated upon by this method.

The factors contributing to mortality are discussed in general and as they are related to our four deaths. These factors included the complexity of the lesion, pulmonary hypertension, arrhythmias, the stage of the disease, and previous surgery.

The favorable nature of this lesion and the desirability of early closure are emphasized.

CARCINOMA OF THE THYROID IN A MEDIUM-SIZED GENERAL HOSPITAL

Pedro Cuevas, M.D. and Joseph A. Witter, M.D.
Highland Park General Hospital, Detroit

After reviewing reports in the current literature from some of the large clinical centers of a relatively high incidence of carcinoma of the thyroid, we were left with the distinct impression that such is not the case in the cross section of the population which presents itself at a medium-sized general hospital. It seemed plausible to us that patients with thyroid disease might tend to gravitate toward a well-known clinic or university medical department from a radius of several hundred miles, and this concentration of cases gives the erroneous impression that thyroid carcinoma occurs with equal frequency throughout the country.

Reviews of large numbers of thyroidectomies for all causes from such centers yielded a malignancy incidence of 6.5 per cent, while thyroidectomy for discrete adenomas produced an average of 16 per cent of cancers.

During the five-year period of 1955-1959 at Highland Park General Hospital, there were 348 operations upon the thyroid gland. Of these, malignancy was found in seven, an incidence of 2 per cent. These occurred almost exclusively in nontoxic nodular goiters. Histologically, they were of a low order of malignancy and occurred primarily in female patients of all age groups. Treatment was aggressive when cervical nodes were involved and was conservative when the disease was apparently limited to the thyroid.

Admittedly, this is a small series, but the incidence of 2 per cent is about one third of that of reported series and tends to substantiate our impression that thyroid cancer does not occur as frequently in our practice as it does in that of the large centers.

Michigan Heart Association
Its Goals and Purposes

In 1912, the Social Service Bureau of Bellevue Hospital, New York City, began a study of patients who had heart disease mainly to ascertain, if possible, whether or not they could continue at self-supporting occupations. After a period of three years, the investigation indicated that such patients could, in fact, continue at remunerative activity without any apparent harmful effects upon their cardiac condition, and in many cases, with marked improvement in their general health and morale. The publications of this report led to many discussions and meetings concerning the possibility of providing greater and more enlightened help to such heart patients.

B. I. Johnstone, M.D.

Out of these discussions, there developed, in April 1916, the Association for the Prevention and Relief of Heart Disease. This was the first organization established to collect and apply information on heart disease systematically. Increasing interest in this work prompted the New York group to invite approximately 100 physicians from all parts of the United States to a meeting in St. Louis on May 24, 1922, to plan a national organization.

Two years later, the American Heart Association (AHA) was formally incorporated under the laws of the State of New York.

It became apparent in the ensuing years that the complex problems of cardiovascular disease could not be solved by the medical profession alone. Organized voluntary action and the cooperation of the lay public were needed to provide and coordinate the many varied and costly resources required for an attack on the cardiovascular problem. The three-fold program of research, education and community service was blueprinted and put into action when the association was transformed into a voluntary health agency in 1948.

On February 17, 1949, the Michigan Heart Association (MHA) was incorporated as an affiliate of the American Heart Association and a member of the United Health and Welfare Fund in Michigan (Michigan United Fund). Since then, the Michigan Heart Association, along with AHA, has grown rapidly in size and influence. This growth has been possible because of the continuous and unselfish devotion characterized in the attitude of its officers, trustees, committee members and staff.

MHA differs from other affiliates in that we do not raise our own funds. The major portion of our funds are provided by the Michigan United Fund. The Memorial Research Fund of MHA, which is composed of memorial contributions, legacies and Christmas card proceeds, supplements MUF funds. Our arrangement has worked

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exceedingly well in Michigan and as an organization we are relieved of the arduous task of fund raising.

During the past year, the Federal government has greatly increased its allocation for medical research. At a policy committee meeting of the AHA on May 17, 1960, it was pointed out that *there remains a continuing need for voluntary support of research* both as a stimulus to government, through the formation of new patterns and programs and in areas where legislative or other limitations restrict government spending.

Since 1949, AHA has channeled more than $40,000,000.00 to support scientific research and during the same period MHA has spent more than $2,000,000.00 for this purpose. Each year MHA has expended 50 per cent or more of its total budget for research.

In 1960-61, more than $330,000.00 has been allocated by MHA for thirty-nine research grants at nine different institutions in Michigan, twenty-five student fellowships and the Deans' Fund at both Medical Schools in Michigan.

Changing conditions necessitate changing emphasis on different objectives. Local conditions also indicate alterations in expenditures. At present Michigan allocations are closely in line with those suggested by AHA.

The growth of community services and education, in large measure, is dependent on the yield of new knowledge obtained through research; new knowledge which can be practically applied at the community level. Our programs of rheumatic fever prevention, nutrition and rehabilitation have been derived from scientific investigation. Should a breakthrough in the field of coronary artery disease or hypertension occur which would justify mass community programs, such as was done with the Salk vaccine against poliomyelitis, the Heart Association would assert leadership in undertaking pilot demonstrations, and lend its assistance and guidance to mass prevention programs.

The change in public attitude toward heart and blood vessel diseases has been a dramatic achievement. Fear and fatalism have been supplanted by a new determination to bring cardiovascular disease under control.

B. I. JOHNSTONE, M.D.,
President, MHA

Ninety-fifth Annual Session

The 1960 Annual Session of the Michigan State Medical Society was held in Detroit, the House of Delegates meeting September 25, 26, 27 and the Scientific Session in session September 27, 28, 29, and 30.

The House of Delegates had an unusually large number of resolutions to consider. Work was expedited by the installation of desk tables for the delegates and of loose-leaf books with sections for each reference committee. The resolutions were mimeographed and placed in their proper committee space.

Forty-one resolutions had been introduced and submitted before the session started, so were printed and available for immediate reference. During the session 17 other resolutions were presented. All resolutions were referred to reference committee meetings where any member who wished, was welcome to talk.

One of the earlier committees to report was that on Standing Committees. Its most important report was that of the House of Delegates Committee to Review the Financial Structure of the M.S.M.S. That was a 24-page exhaustive report with far reaching recommendations. Otto K. Engelke, M.D., of Ann Arbor, was chairman and presented a convincing report.

The Reference Committee on Medical Service and Prepaid Insurance had the most resolutions—and the most controversial ones—referred to it. They held almost continuous sessions except when the House of Delegates was meeting, including working until 2:30 a.m. of the last day of the House, then convening again for breakfast. The report, a masterpiece, produced many answers to many questions and was accepted almost without amendment by the House. Not all questions have been settled, further studies are advised, but a working arrangement has been reached.

For an outline of the Proceedings of the House of Delegates, see the report of the Speaker and Vice Speaker, J. J. Lightbody, M.D., and H. F. Falls, M.D., in the State Society Section, page 1617.

On Tuesday afternoon, the House of Delegates and others sat as the corporate body of Michigan Medical Service and elected the following members of the Board of Directors: Sidney Adler, M.D., Detroit; Ferry B. Allen, Vice President, Michigan Bell Telephone Company, Detroit; Howard G. Benjamin, M.D., Grand Rapids; Roger W. Debusk, M.D., Detroit, re-elected; Malcolm L. Denise, Vice President,

Ford Motor Company, Detroit; Ernest P. Griffin, Jr., M.D., Flint; W. H. Huron, M.D., Iron Mountain, re-elected; Michael C. Kozonis, M.D., Pontiac, re-elected; Roger B. Nelson, M.D., Ann Arbor, re-elected; Jerome Pollack, Social Security Department, U.A.W., Detroit; and Harry S. Rudy, Vice President, Detroit Bank and Trust Company.

President-Elect Otto K. Engelke, M.D.

O. K. Engelke, M.D.

Otto K. Engelke, M.D., was born September 4, 1909, in Cincinnati, Ohio, the son of Fred Charles and Minnie (Steuwer) Engelke. He was educated at Cincinnati University, B.S., 1930; M.D., 1933; M.S.P.H., University of Michigan in 1941. He married Mary Ellen Ellison in 1935, and they have three children—Judith Ann, Robert Otto, and Jean Ellen.

He was in the general practice of medicine in Dearborn for three and one half years from 1934 to 1937. He served as Director of the Health Department of Adams County, Ohio, from 1938 to 1940; and was a Fellow of the Public Health Administration, W. K. Kellogg Foundation in 1940-41. He was Director of the Washtenaw County, Michigan Health Department, 1941 to date, and from 1942 to 1947, he was an Instructor in Public Health Practice, University of Michigan School of Public Health. From 1947 to date, he has been Assistant Professor of Public Health Practice at the University of Michigan.

Dr. Engelke is a member of Alpha Omega Alpha; Delta Omega. He is a member and President-Elect of Washtenaw County Medical Society; member of Michigan State Medical Society, American Medical Association, Michigan and American Public Health Associations, Michigan Health Officers Association; Past President, Michigan Health Officers Association; Past President, Ann Arbor Community Fund; Past President, Michigan Health Council; President, Michigan Public Health Association; Diplomate, American Board of Preventive Medicine and Public Health.

His hobbies include hunting, fishing, rifle and revolver shooting-hand loading. He is the author of medical and scientific articles and papers in the field of public health.

His wife, Mary Ellen, is the daughter of S. J. Ellison, M.D., West Union, Ohio, fifty-year general practitioner. Her brother is R. B. Ellison, M.D., currently in general practice of medicine in Peebles, Ohio. A nephew of the Engelkes, John E. Dymond, M.D., is currently interning in Decatur General Hospital in Decatur, Illinois.

Wyman C. C. Cole, Sr., M.D., Detroit, Councilor 16th District

W. C. C. Cole, M.D.

Wyman Cole, M.D., was born in Minneapolis, Minnesota, in 1893 and received his M.D. degree from the University of Minnesota in 1918. He was a Fellow in Pediatrics at the University of Minnesota from 1918 to 1920 and came to Detroit in 1920 as an associate of the late Thomas B. Cooley. He is on the staff of Woman's, Harper and Children's hospitals.

He organized the 36th General Hospital (Wayne University Unit) and served in North Africa, Italy and France as Executive Officer from 1942 to 1945 and retired with the rank of Colonel.

From 1949 to 1958, he served as secretary to the Section on Pediatrics of the American Medical Association, and as chairman of that same section from 1958 to 1959. He was chairman of the Committee on Fetus and Newborn Infant, American Academy of Pediatrics, 1952-1958, which prepared widely used manuals "Standards and Recommendations for Hospital Care of Newborn Infants" and "Resuscitation of Newborn Infant." He is also the author of many papers.

Doctor Cole received the Clifford E. Grulee Gold Medal Award for services to the Academy of Pediatrics in 1959.

He is married and has three children, Harriet Okerstrom of Denver, Colorado, Martin F. Cole of Detroit, and Wyman C. C. Cole, Jr., M.D., with whom he practices.

James R. Dehlin, M.D., Gladstone, Councilor 12th District

James R. Dehlin, M.D., was born in Manistique, Michigan, on March 24, 1918.

He attended the University of Michigan, receiving his Bachelor of Science in Pharmacy in 1941, and is a registered pharmacist in Michigan. He received his

medical degree in July, 1944. Internship and surgical residency training were done at Hurley Hospital, Flint, Michigan, 1944 to 1945.

He served as Captain of the U. S. Army Medical Corps, Army of Occupation, ETO, from 1946 to 1947.

He has been in general practice (group practice) in Gladstone since 1948.

Doctor Dehlin is a member of the Delta-Schoolcraft Medical Society (Past President); Michigan State Medical Society, and delegate for three years; American Medical Association; Michigan Academy of General Practice and member of the Board of Directors; American Academy of General Practice since 1953; World Medical Association; Michigan Association of the Professions; on Staff at St. Francis Hospital, Escanaba, Michigan (Past President), Chairman of Surgery.

Doctor Dehlin is a member of the American Cancer Society, Michigan Division, Executive on Board of Directors; Gladstone Rotary Club (Past President); Delta County University of Michigan Club (Past President). He is active in the Boy Scouts of America and has been chairman of Rotary Troop Committee for the last five years.

Doctor Dehlin is a member of the Knights of Columbus (Fourth Degree Knight), American Legion, Elks, and Michigan Conservation Club.

He is married and has six children.

Important Supreme Court Decision

On Friday, September 16, the Supreme Court of the State of Michigan handed down a decision which changes legal precedent and proceedings in force since 1894.

It had been the law that non-profit institutions and hospitals were not financially responsible for accidental damages which occurred in their servicing of patients. The decision upheld St. Clair County Circuit Court's award of $20,000 to the estate of Elizabeth Catherine Clark, thirty-one, a mother of four, who died thirteen days after a transfusion of mismatched blood at a Port Huron hospital in 1952. Thus was established a new rule that hereafter, non-profit, charitable hospitals can be held responsible for acts of negligence.

Justice Kavanaugh wrote the majority opinion of four to three, with one abstaining. He based his opinion on the "unquestioned fact that charity has become a big business in which, because of income tax laws, it is profitable to be charitable, but even with donations, patients pay, and pay well, for the care they receive."

After establishing such a rule, we may look for many more cases. Incidents of claimed neglect occur quite frequently. The medical profession, the doctor, and the surgeon who is doing the work in these hospitals have been held responsible in malpractice cases for such neglect, and malpractice verdicts are reaching fabulous rates in some areas.

This ruling will definitely place the non-profit and charitable hospitals and endowed hospitals on the receiving end along with the doctor-victim of malpractice suits. Undoubtedly, the hospitals must now begin to carry indemnity insurance the same as the doctors have been doing, and these rates and costs will increase hospital charges to patients. This Supreme Court decision could be another large item boosting the costs of hospital care.

It could even be that before a satisfactory level is established, some hospitals may have to use their general income and endowment income to pay damage claims instead of wages and salaries. This is not saying there should not be protection for damages due to negligence, but with this new regime, the way is wide open for a flood of damage cases.

Costs of Hospital Services

As publicity for the United Fund drive, the *Battle Creek Enquirer and News* quoted a recent survey in Battle Creek which reported that $248,000 in local hospital bills were unpaid each year. Patients in Battle Creek are paying almost a quarter of a million dollars too much for hospital services which would be saved: (1) if the city or other agencies paid for the destitute, drunks, fight and accident victims, and other emergency cases brought to the hospital, usually by police or ambulances, to be cared for at hospital expense; (2) if public welfare departments (state, county, city) paid for their patients at actual hospital costs; (3) if all regular, supposedly paying patients actually paid their bills; (4) if hospital health insurance programs paid at full hospital cost rates.

The biggest item is Number 3 with $147,000 in uncollectible bad debts. The hospitals lost $54,000 a year on welfare patients, state and county. Some pay low, negotiated rates, some do not pay. There are non-paying emergency cases with no time or opportunity to determine responsibility, emergency cases in the operating room, women in labor. This

last item amounted to $25,000. In many instances, prepaid insurance was an indemnity paying only fixed amounts, with the patient thinking he was fully covered. There is an estimated item of $20,000 for real charity. The average costs per hospital day—patient day—for short term general hospitals across the country were $33.90. In Battle Creek, the average is $32.82. The average length of stay in the hospital in Battle Creek is 6.75 days, well below the Michigan general average of 7.9 days. This study and report points out some very obvious need for remedial action. The state, county and city, and governmental welfare and social service agencies should pay the actual hospital costs. There is no justification for not doing so. These are tax-supported agencies. The hospitals should not be called on to do this work free or for less than cost.

Prepaid hospital insurance plans such as Blue Cross meets this requirement, but much hospital insurance advertised and sold is purely indemnity paying at rates well below the prevailing costs. Their purchasers believe they are insured, but only find the inadequacy when need arises. The $280,000 loss was 4.5 per cent of Battle Creek's total costs.

Unfriendly Magazine Articles

Harpers Magazine, in its October 1960 issue, published an article, "The Politics of Medicine," by Edward Chase "who has reported on various aspects of medical economics in other magazines." He tells the story of a forty-one-year-old obstetrician who died on Staten Island from "overwork." He practiced in a medical group affiliated with the Health Insurance Plan of Greater New York (HIP) with 24,000 city employees on Staten Island, with three hospitals. He was the only HIP doctor on their staff. It was alleged that other HIP doctors could not gain admission to the staff, so this doctor had all the obstetrics for this group of insurees. He died of a bleeding ulcer.

The local reaction brought on investigation, a committee of the New York State Legislature, testimony from the County Medical Society, and the complaint that doctors were refused admission to the hospitals. The author mentioned many times that if a man is from the HIP group he could not get into the hospital. At the instigation of the state legislative committee, the hospitals have been forced to accept three new HIP doctors. The argument is largely unfriendly to the County Medical Society.

The author refers to the ancient "guilds of Aesculapeus and Hippocrates" and their followers who taught their sons to be doctors and directed the practice of medicine. He says "these guilds of antiquity looked after the professional and economic interests of medicine. This remains the prime purpose of their successors, the medical societies, whose chief concern—as with business trade associations, is to help the membership make money—substantial money." He refers to the Medical Society of New Jersey which has "shown over the years an unmistakable belief that what's good for the doctor—financially—is good for the country."

Mr. Chase completely distorts the American Medical Association stand about old people: "they should get all the medical care they need simply by using up their own savings and their families or through public assistance, the pauper's choice." He says the doctor reads only medical journals, "a uniquely unenlightening brand of literature in social, economic, and political affairs." He tells the story of a young doctor's wife, a Radcliffe girl, who being disturbed by discussion about the Forand Bill at a medical dinner party, decided to prepare to discuss it. She could not find anything in all the medical journals that her husband had which even gave her facts that seemed essential to her in the argument.

The editor's foreword raised the question, "Why are we up against a critical shortage of doctors with no plans to fill the gap—and an intimation in the article that the only way a reasonably intelligent and well-qualified man can enter the practice of medicine is through favoritism and special pull to get into a top flight medical college. The article, in closing, puts up a strong argument for the HIP type of practice, or the Kaiser Permanente Foundation program, or for John L. Lewis' United Mine Workers program or a program like the Veterans Administration and its salaried doctors.

About a decade ago, *Harpers* had an editorial writer, De Voto, who could see nothing good in medicine. This article coming at this particular stage of politics could easily be intended as a political gesture against the arguments and wishes of the American Medical Association and the medical profession in general.

Helps Cardiac Victims—The only electronically-controlled heart-pumping machine north of Detroit has been installed in Bay City. The new precision equipment is operated by the Clinical Laboratories and Northern and Northeastern Michigan Blood Banks, directed by W. G. Gamble, Jr., M.D., Bay City.

Pathology Comment

These items are provided by the Michigan Pathological Society

The Biopsy in Medical Diagnosis

Biopsy as a diagnostic procedure has become so taken for granted that it is time, perhaps, to review the progress made recently to extend the range of this very rewarding medical tool or technique. The well-prepared biopsy specimen that is properly processed and properly interpreted carries with it such a very high percentage of diagnostic accuracy as to be practically unmatched by any other procedure in medicine. A modification of the procedure, namely the frozen section diagnosis, comes close to the more deliberate processing in both usefulness and accuracy.

Biopsy tissue is secured usually by sharp surgical dissection. Sometimes electrocautery is used. There has been added recently a third way, namely, securing tissue by the follow or exploring needle. The "needle biopsy" of the liver is perhaps the best known, there is extension to the kidney for example; and breast lesions and other tumors have been explored by this method in the recent past. Another example is the use of this exploring needle in the diagnosis of thyroid gland inflammations. The latter has brought to light an incidence of acute and subacute thyroiditis only guessed at previously. Other organs that have received attention along these lines have been the prostate gland, subcutaneous swellings, and other accessible new growths.

Another fertile field for the microscopists' analyses has been the fluids and bodily secretions, as well as aspirations which not infrequently yield on proper preparation, minute biopsies or cell clusters; and at the very least are a rich source of cells for cytological diagnosis of neoplasia. Particles have been aspirated from the bone marrow for many years and these can be prepared by conventional methods for histological study, or to make imprint preparations on glass slides; but in any event are in reality minute biopsies. At this moment and in my geographical area, biopsies taken under direct vision by means of the peritoneoscope are not popular but in other areas and in some other countries the technique is being tried constantly.

A variant of both the cytological approach to the diagnosis of malignancies and the frozen section diagnosis has been the development of impression smears for the immediate diagnosis of neoplastic disease. Other uses for the impression smears have been extensions of the knowledge to be gained from the frozen section or paraffin section diagnosis of biopsy tissue and have found particular usefulness in the interpretation of lymph node diseases, bone marrow abnormalities, and from the study of certain tumors including brain tumors.

Histochemical methods are as old as stain technology. In the last analysis the affinity of a tissue or a tissue segment for a dye is on a chemical basis as a rule. However, modern histochemical methods have gone much beyond that general consideration and now have enlarged the horizons of cellular pathology to a considerable extent. Examples of such refinements are the studies of basement membranes and other collagen constituents in the so-called collagen group of diseases.

There are new forms of microscopy that include phase microscopy, fluorescence microscopy, and interference microscopy. They appear to be destined to play their role in further extending the potentials of the cellular knowledge of disease. The horizons of this medical diagnostic technique are being enlarged constantly. Examples are the recognition of sex chromatin in epithelial cell nuclei; another is the single or serial biopsy of the testis in male sterility cases. The end is certainly not yet in sight.

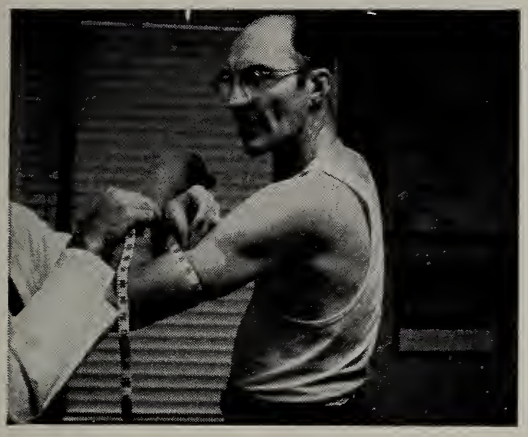
U-M Postgraduate Courses

The University of Michigan offers the annual course in Pediatrics-Obstetrics and Gynecology, January 23-27, 1961. Physicians may enroll for either or both sections.

The annual two-day course in *Psychiatry* will be given at the University Hospital, February 20 and 21, and will consist of four seminars of three hours each, dealing with clinical problems in which greatest interest has been expressed by practitioners.

The course on *Selected Clinical Topics* will be given from 8 to 10 p.m., Tuesdays, February 14 through May 2, 1961. The outline of subjects to be presented is available.

Applications or requests for information may be addressed to John M. Sheldon, M.D., Director, Department of Postgraduate Medicine, University Hospital, Ann Arbor.



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Editorial Comment

Blue Shield and Our National Leadership

(National Association of Blue Shield Plans)

The American Medical Association's recent declaration of renewed support for Blue Shield demonstrates that the national leadership of our profession recognizes the importance most of us in the state and county medical societies long ago attached to our support of our local Plans.

In its essence, the action of the A.M.A. House of Delegates comprises an acknowledgment that medicine's own sponsored Blue Shield prepayment plans need all the support, understanding and guidance we can give them—at every level of our professional activity.

Although each of the nation's 68 Blue Shield Plans was created by local county or state societies to meet the particular needs of their own communities, the emergence of medical care as a national issue has compelled our profession to forge Blue Shield into an instrument capable of meeting and solving prepayment problems on a national scale.

In the past two decades, both management and labor have firmly embraced the principle of industry-wide bargaining. Employers, through merger and trade association action—and workers, through nation wide unions are increasingly concerning themselves with welfare and health programs extending from coast to coast and from border to border.

Whether we like it or not, the future of medical practice will be shaped by great continental interests and forces. If we wish to preserve the principles of free enterprise and individual integrity in American medicine, we must look to the national spokesmen of our profession for the same bold leadership and firm support of the Blue Shield concept that the leaders of the state and county sponsoring societies have given Blue Shield during all its tender years.

Forensic Medicine Institute

George Washington University has established an Institute of Forensic Medicine, under the cosponsorship of the Law Center and the School of Medicine. The Institute will serve as a forum for the disciplines of law and medicine in areas where these professions are interrelated and it will present classroom instruction, symposia and institutes.

Such centers of medicolegal activity also are established at Cleveland, Boston, Pittsburgh and Chicago.

Problems in Recruiting Superior Medical Students

Interesting observations and facts about the problems of recruiting superior medical students and the need for financial aid were presented by a MSMS committee to The Council at its August 24 meeting. The Council ordered that the information be presented to the MSMS members in THE JOURNAL.

It was a subcommittee of the Public Relations Committee which investigated the two interlocking problems facing medicine.

Following are portions of the report developed by the committee members and representatives of the medical schools at the University of Michigan and Wayne State University:

"The members disclosed that impressions gained from medical students were that a 'home-town M.D.' was one of the primary motivating factors in the student's entering the study of medicine.

"One of the problems of recruitment is to dispel some commonly held misconceptions. It must be shown that the student doesn't have to be a genius, doesn't have to be an M.D.'s son, nor have "pull" to get into medical school.

"In 1960, 800 students had applied for entrance to the U-M Medical School. Of this number, about 275 had been found fully qualified and had been issued invitations by the Dean. About 75 will not accept the invitation because of some change in plans and this leaves just enough students to fill the 200 freshman class openings.

"Experience at Wayne over the last four years shows an increased number of applicants but these are of lower quality.

"The two medical schools are now involved in recruitment activities through visits and contacts with pre-professional advisors, student interviews, participation in career days and science club visitation programs. It was noted, however, that pre-professional advisors in liberal arts colleges are not necessarily friendly to medicine and may direct superior students into the physical sciences and other graduate study.

"It was pointed out that the decrease in World War II GI scholarship benefits had increased the economic distress of medical students.

"It was pointed out that at least five county medical societies now are active either in broad recruitment or in scholarship loans, but the Subcommittee hoped that more help could come from these sources. The Subcommittee was also cognizant of the work of the Michigan Foundation for Medical and Health Education, Inc.

"It was also suggested that each county medical society be made aware that the average indebtedness of a medical graduate is between $4,600 and $5,000, and that these societies be urged to contribute scholarship funds to both medical schools to be administered by the deans without restriction. Also, superior students should be advised about medical school entrance opportunities and the scholarships now available from many sources including medical societies.

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"A recent study showed that over a period of years, medical alumni who had received scholarship grants had returned 170 per cent of the original sum, while those who participated in loan programs had only returned the face value of the loan. From this, it would seem that the scholarship plan is superior to the loan plan even though on the surface one expects that scholarship monies are never returned."

New Influenza Vaccine

A joint statement urging routine vaccination against influenza for persons with heart and blood vessel disease was issued October 21, 1960, by the American Heart Association and the National Heart Institute of the United States Public Health Service.

In releasing the statement, Drs. A. Carlton Ernstene, President of the American Heart Association, and James Watt, Director of the National Heart Institute, said:

"Evidence of the past three years has abundantly confirmed that the dangers of influenza are much greater for patients with heart or lung disease than for others. The risk is particularly high for those with lung congestion due to heart disease. Also, it is clear that the threat of influenza is continually recurring. We recommend that heart patients seek the advice of their physicians with regard to obtaining the protection offered by routine vaccination."

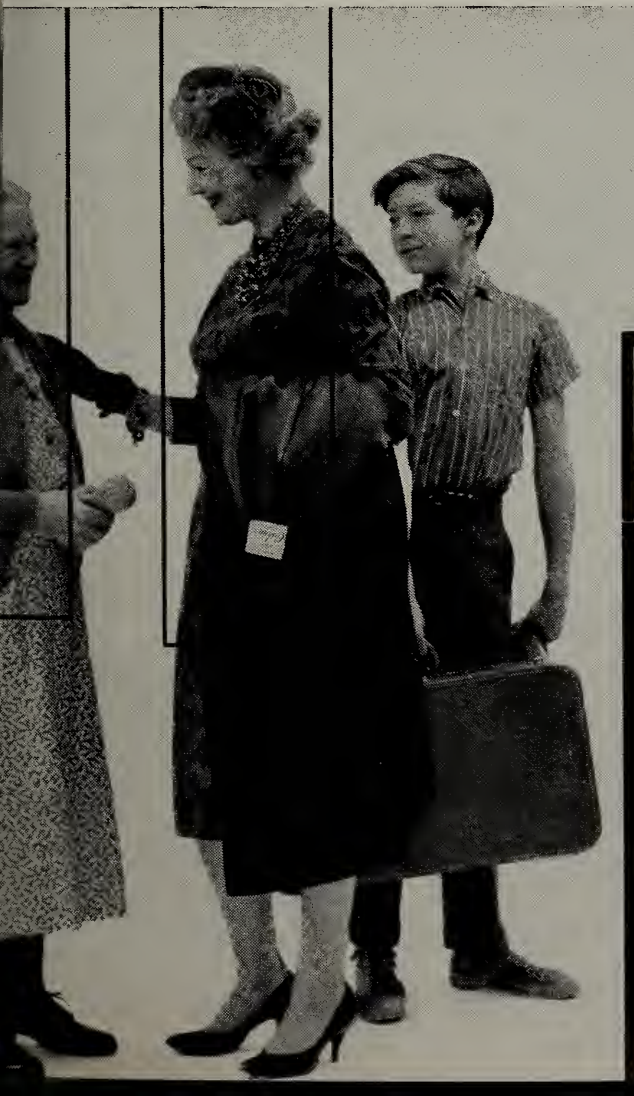
The statement was made in support of the program recently disclosed by Dr. Leroy E. Burney, Surgeon General of the Public Health Service, "to intensify efforts to encourage influenza vaccination of selected population groups."

The text of the joint statement follows:

"The epidemics of influenza which occurred in the fall of 1957, the spring of 1958, and the first quarter of 1960 have again emphasized the fact that individuals with cardiovascular or pulmonary disease are more susceptible to the hazards of influenza than is the general population. The increased risk is shown both by more severe illness and by higher fatality rates among patients with these diseases.

"Evaluation studies with influenza virus vaccine have shown that its use is of definite value in preventing influenza. In adults, side reactions have been extremely few and use of the vaccine is contraindicated only in those patients who are allergic to components of the vaccine. The Public Health Service Advisory Committee on Influenza Research has strongly recommended that those persons at high risk of death from influenza obtain immunization as a protective measure. Because influenza epidemics recur in unpredictable cycles, and particularly because some influenza occurs continually, annual immunization has been recommended.

"The American Heart Association and the National Heart Institute wish, therefore, to bring these facts to the attention of all physicians. In addition, it is urged that persons with cardiovascular disease consult their physicians as to the advisability of obtaining routine influenzal vaccination."



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1. Walker, R. S.: Brit. M. J. 2:405, 1959.
2. Odell, W. D., et al.: A.M.A. Arch. Int. Med. 102:520, 1958.
3. Pearlman, W.: Phenformin Symposium, Houston, Feb. 1959.
4. DeLawter, D. E., et al.: J.A.M.A. 171:1786 (Nov. 28) 1959.
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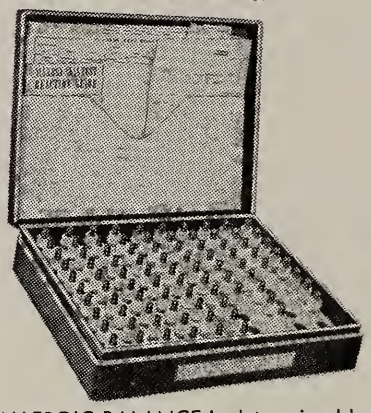

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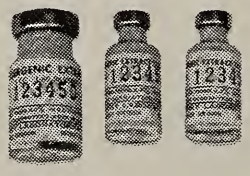

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Vitamin A	4000 USP Units	Vitamin K (Menadione)	0.25 mg.
Vitamin D	400 USP Units	Rutin	10 mg.
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MEDICAL, SURGICAL, AND GYNECOLOGICAL COMPLICATIONS OF PREGNANCY. By the Staff of Mount Sinai Hospital, New York City. Edited by Alan F. Guttmacher, M.D., Obstetrician and Gynecologist-in-Chief, and Joseph J. Rovinsky, M.D., Assistant Attending Obstetrician and Gynecologist. Baltimore: The Williams & Wilkins Company, 1960. Price, $16.50.

This is one of the most up-to-date texts on the complications of pregnancy. It is a Mount Sinai staff book and includes the accumulated knowledge of all the clinics—Cardiac, Pulmonary, Hypertensive-Renal, Diabetic, Hematologic, Neurologic, Psychosomatic, Obstetric-Gynecologic Endocrine, Vaginitis and Varicose Veins. Each chapter includes detailed therapeutic procedures with excellent references. The section on hematologic problems is outstanding and would be of great value to all medical practitioners. Emphasis is placed on the common disorders of pregnancy, but the rare complications are also discussed.

This book is not only well written, but is also very comprehensive. As a reference, it will be of interest to all men who are practicing medicine, regardless of the field.

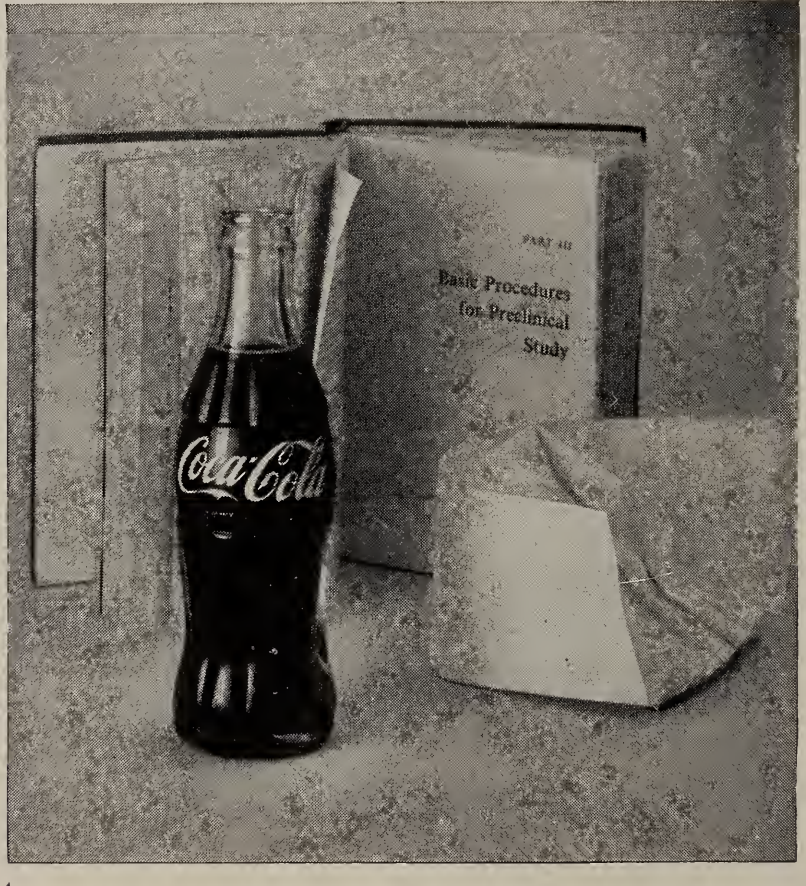
J.R.P.

THE HEART IN INDUSTRY. By Twenty-four Authors. Edited by Leon J. Warshaw, M.D., F.A.C.P., Consultant in Occupational Health; Medical Director, Paramount Pictures Corporation; Medical Director, United Artists Corporation, New York. Foreword by Irving S. Wright, M.D. New York: Paul B. Hoeber, Inc., Medical Division of Harper & Brothers, 1960. Price, $16.00.

The Heart in Industry is a compilation of monograph on industrially related aspects of heart disease by twenty-four different authors, all of whom have been carefully selected for personal experience in this particular field of industrial medicine. It covers a segment of heart disease which is ordinarily not found in the usual standard medical textbook, emphasizing practical aspects encountered in day-to-day practice in this field.

A chapter on the physiologic effects of work on the heart is included. Methods of detection and mass screening of heart disease in industry, as well as placement of the recovered patient, are thoroughly discussed. Cardiac aspects of vehicle operation, operation of aircraft, and farming in those individuals suffering from circulatory diseases are explored. The function of cardiac work classification units and the vocational rehabilitation of the cardiac—when to return to work, et cetera—are also covered. A chapter on cardiac compensation cases and legal litigation, as well as one on heart disease of occupational origin, is included. The effects of trauma, toxins, and heart disease secondary to pulmonary disease of industrial origin are also presented.

A list of references follows each chapter and brief case presentations are employed to illustrate many aspects.



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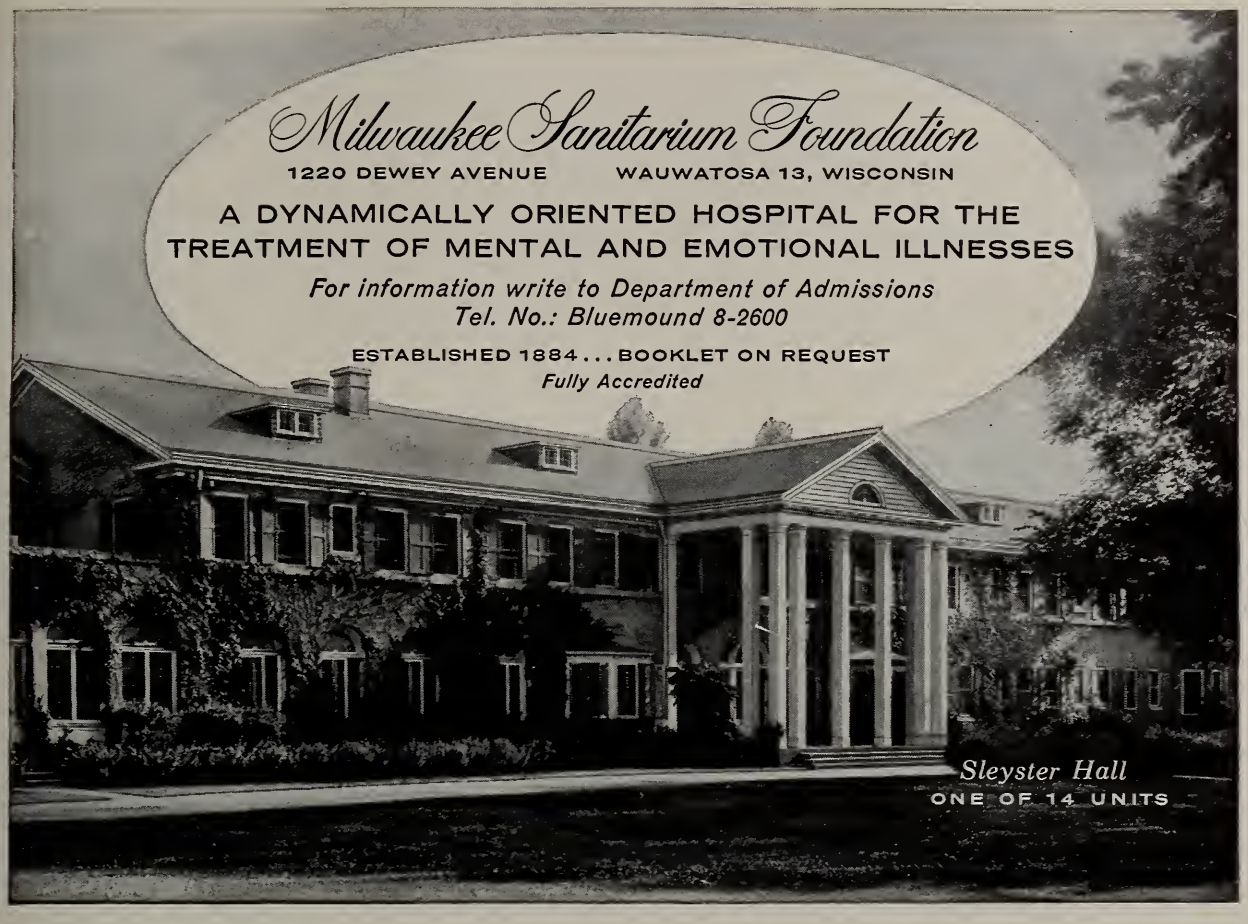

This book should be of primary help to the industrial physician in making many of the decisions regarding placement, ability to return to work, duties limitations, et cetera for the returning patient, and for the advice of the employer as well. It is fairly easy reading and is well printed, and deals primarily with practical aspects of management as refers to industry, which is often neglected in the standard textbook on heart and circulatory diseases. Though it appears to ramble some in its presentation, it is a good step forward in this particular field.

R.W.B.

FRENCH'S INDEX OF DIFFERENTIAL DIAGNOSIS. Edited by Arthur H. Douthwaite, M.D., F.R.C.P., Senior Physician, Guy's Hospital; Honorary Physician, Westminster Hospital and All Saints' Hospital for Genito-urinary Diseases. Eighth edition. With 774 illustrations, 216 in color. Baltimore: The Williams and Wilkins Company, 1960. Price, $24.00.

This standard text needs no introduction to the professional reader, as it has been a classic work on differential diagnosis since its first edition in 1912. It is now in its eighth edition, with many sections rewritten and carefully revised, together with additions to keep up with the rapid advances in medicine. As usual, it is well illustrated with 216 of the illustrations in color.

Although French died in London in 1951, the work is well carried on by his successor, Douthwaite, with the preservation of the same general form and purpose. French wrote more than one-half of the original text himself, and enlisted a number of specialist contributors for the rest. Obsolete material has been deleted in each successive edition and new entities are described representing new symptom complexes.

As in former editions, a comprehensive index of symptoms in alphabetical order, as well as the organization of these under headings of the diseases in which they occur, is presented. Methods of distinguishing between various diseases under the symptom heading are also carefully discussed. Treatment, pathology, and prognosis are not covered. Some minor signs and symptoms not meriting separate articles are found in the general index at the end, with proper page references.

This is a work of more than considerable usefulness to all those in the daily practice of medicine.

R.W.B.

DICTIONARY OF ABBREVIATIONS IN MEDICINE AND THE RELATED SCIENCES. By Edwin B. Steen, Ph.D., Professor of Anatomy and Physiology, Western Michigan University. Philadelphia: F. A. Davis Company, 1960. Price, $2.50.

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Volume 59 Number 12

December, 1960

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THE COVER

This number of THE JOURNAL is dedicated to child welfare and mental retardation. In addition to excellent scientific articles, your attention is invited to two articles about the 1960 White House Conference on Youth and Children, pages 1801 and 1863.

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2. Waine, Hans: Arthritis, rheumatoid, in Conn, H. F.: Current Therapy 1959, Philadelphia, W. B. Saunders Co., 1959, p. 565.

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President's Page

AN OBLIGATION

We Michigan physicians have an immediate and continuing opportunity to serve our older citizens.

The Mills Bill, passed by Congress this fall, was supported by our efforts in the MSMS "Campaign for Freedom." The law provides medical care and hospitalization similar to Blue Cross-Blue Shield coverages, for persons sixty-five years old whose need for such care has been determined by a licensed physician.

The Michigan Legislature implemented the Mills Bill in September by passing a new "Medical Assistance for the Aged" (MAA) law, delegating eligibility and administrative authority to the individual county social welfare offices. Facts on the operations of this program, which will benefit an estimated 60,000 senior citizens annually, have been mailed to each MSMS member.

It is our continuing obligation to provide these elder patients with kind, sincere and adequate medical attention. It also is our obligation to help them in another way, by explaining the mechanics of the new program and assisting them in making application for aid.

Thus, in being helpful to this particular group of our patients, we also will be carrying out the spirit and intent of the MSMS Presidents Program, of bringing greater health and happiness to all citizens of Michigan.

Kenneth H. Hudson

Plan New TV Approach At '61 MCI in March

For the first time, a disease problem will be explored in depth over the closed circuit color television programs at the 1961 Michigan Clinical Institute refresher course, March 8-10, in Detroit.

General Chairman M. A. Darling, M.D. and TV Committee Chairman D. H. Kaump, M.D., both of Detroit, report that the new depth approach is being tried on an experimental basis. Doctor Kaump said, "The full two-hour television period will be devoted to the various approaches to a disease problem with discussion and demonstrations by doctors in specialty fields including surgery and internal medicine. The committee believes that the practicing physician will obtain a spread of information and knowledge in this detailed presentation that will materially aid him in his work."

The closed circuit TV programs this year will eminate from the operating rooms of Detroit Memorial Hospital.

The complete 1961 MCI program will appear in the January Journal. Once again, the program will be arranged in "blocks." The program for March 8 will deal with surgery in the morning and trauma in the afternoon, for March 9 with heart and rheumatic fever in the morning and internal medicine in the afternoon. MCI will end the morning of March 10 with obstetrics and gynecology.

Push Diabetes Detection

The Diabetes Committee of the Michigan State Medical Society, under the chairmanship of William M. LeFevre, M.D., Muskegon, and the Detection Committee of the Michigan Diabetes Association, chaired by Henry D. Kaine, M.D., Detroit, combined forces to push the concept that every physician's office is a diabetes detection center.

A letter asked MSMS members that they cooperate by offering free urine sugar screening tests to every patient visiting their offices during diabetes week November 13-19. Testing materials and test kits, which patients use and return for reading to the Diabetes Association were offered to all physicians.

Accepts Official Gavel

The Michigan State Medical Society Council, through William L. LeFevre, M.D., 11th District Counsellor, has advised Mrs. Joseph J. Herbert that a rosewood gavel owned by her late husband has been accepted by the Society in tribute to her husband.

The late Mr. Herbert was legal counsel to MSMS for many years and also served as Regent and Chairman of the Board of Regents of the University of Michigan for 16 years.

The gavel will be displayed in a glass case with rosewood frame, and engraved memorial plate, in the Medical Society's new headquarters in East Lansing.

HIGHLIGHTS of MSMS Council Meeting

Meetings of September 25 and 30, 1960

Eighty-two items were presented to and discussed by The Council at its two meetings in Detroit immediately preceding and during the 95th MSMS Annual Session. Chief in importance were:

- Progress Report on new MSMS headquarters was presented by K. H. Johnson, M.D., of Lansing on behalf of the Big Look Committee. Doctor Hyland praised the design of the new building which will be featured in the publication of the American Association of Architects; Treasurer Hyland also reported that the prime rate on borrowed money had declined and MSMS would benefit from this development.
- 1968 Annual Session was established for Sheraton-Cadillac Hotel, Detroit, the week of September 15.
- Councilor D. G. Pike, M.D., Traverse City, submitted his resignation from The Council to permit his taking resident postgraduate training in Washington, D. C.; the resignation was accepted with sincere regret and with the thanks of The Council for Dr. Pike's service to MSMS and its members.
- Thanks from American Medical Association for the effort of the Michigan State Medical Society membership in advocating passage of desirable legislation for care of the aged in the 1960 Congress were presented.
- State Society Dinner Dance. Final plans for this social function of September 29, during the Annual Session, were completed by The Council.
- Nomination to Medical Advisory Committee of Michigan Hospital Service: O. J. Johnson, M.D., Bay City, was nominated to fill the unexpired term (to 1963) of W. S. Jones, M.D., of Menominee who stated he would be unable to continue service on the Committee.
- Legal Counsel Lester P. Dodd presented opinion concerning dual staff in a certain up-state hospital.
- Health Care of the Aged. Public Relations Counsel reported on the September 20-21 meeting of the Michigan Conference on Aging at which recommendations of the regional conferences were not accurately reported and the MDs attending found the discussions monopolized by labor representatives. The Council approved drafting a dissenting report on the Michigan Conference of Aging, to be reported to The Council before transmission to the White House Conference on Aging. Further, Speaker Lightbody was requested to invite Public Relations Counsel to make a special brief report to the House of Delegates on untoward developments at the Michigan Conference on Aging.
  The report on the Aging Conference, and its first four recommendations, were added to the Supplemental Report of The Council, for presentation to the 1960 House of Delegates.
- State Fair Exhibit. The displays sponsored by MSMS in co-operation with Wayne County Medical Society, Oakland County Medical Society, and Macomb County Medical Society were viewed by more than 200,000 persons. The Council expressed appreciation to those physicians and others who aided in the successful conduct of the State Fair Exhibit.
- Committee Reports. The following committee reports were given consideration: (a) Advisory Committee on Insurance Problems, meeting of August 17; (b) Public Relations, August 21; (c) Committee on Alcoholism, August 25; (d) Iodized Salt, September 7; (e) Wayne Councilor District Medical Care Insurance Committee, September 15; (f) Finance Committee of The Council, September 25 (during which the complete financial picture of the Society was reviewed); (g) Medical Care Insurance Committee, August 24, and meeting of Sub-Committee on Relative Value Study, meetings of June 4-5, June 29, August 6-7; (h) Joint meeting of Medical Care Insurance Committee and Relative Value Study Sub-Committee, September 10 and RVS Committee, August 27-28; (i) Medical Care Insurance Committee, September 18; (j) Advisory Committee to Executive Director, September 25; (k) Medical Care Insurance Committee's Supplemental Annual Report (presented in person by Chairman J. W. Rice, M.D., of Jackson); (l) Advisory Committee of Past President, September 28.
- The Supplemental Annual Report of The Council (including Supplemental Report of Big Look Committee) was presented, amended in various details, and approved for submission to the House of Delegates.
- At the September 29 meeting of The Council, the new Councilors and Officers were introduced by Chairman Meier: John J. Coury, Jr., M.D., Port Huron, Councilor of 7th District; R. V. Daugharty, M.D., Cadillac, Councilor of 9th District; J. R. Dehlin, M.D., Gladstone, Councilor of 12th Dis-

(Continued on Page 1766)

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Highlights of MSMS Council Meetings

(Continued from Page 1764)

trict; Wyman C. C. Cole, Sr., M.D., Detroit, Councilor of 16th District, and O. K. Engelke, M.D., Ann Arbor, President Elect.

- A vote of official recognition and thanks to retiring Councilors and Officers was placed on the minutes of The Council. Referred to the Committee on Awards was the suggestion, emanating from Advisory Committee to Executive Director, that specific recognition of services rendered by retiring Councilors, Officers, Committee Chairman and Committeemen be devised.
- Reorganization of The Council: H. J. Meier, M.D., Coldwater, was elected to succeed himself as Chairman of The Council; T. P. Wickliffe, M.D., Calumet, was re-elected as Vice Chairman; O. B. McGillicuddy, M.D., Lansing, was returned as Chairman of the Finance Committee; W. M. LeFevre, M.D., Muskegon, was chosen Chairman of the County Societies Committee and B. M. Harris, M.D., Ypsilanti, was made Chairman of the Publication Committee.

  In scheduling meetings of The Council for 1961, The Council voted to meet under the same rules as in 1960 where the presence of 50% of The Council shall be a quorum, and if no quorum of The Council is present, a quorum of the Executive Committee of The Council shall constitute a quorum for these monthly meetings. A poll of the members was ordered taken to obtain an expression of opinion re the most convenient day on which future meetings of The Council should be held.
- Highlights of the 1960 MSMS House of Delegates actions, as drafted by the State Society staff, were ordered mailed to all members of the House of Delegates, Alternate Delegates, Councilors, Officers, Presidents, Secretaries, Editors and Executive Secretaries of County Medical Societies, AMA Delegates and Alternate Delegates.
- In connection with County Secretaries-Public Relations Seminar to be held in Lansing, January 28-29, The Council instructed that a list of suggested duties for component society secretaries be prepared in the form of a handbook for new secretaries to complement the existing pamphlet "So You've Been Elected."
- Committee Appointments. The Committee (of The Council) to Streamline 1961 Mid-Summer Council Session was appointed by Chairman Meier: O. J. Johnson, M.D., Bay City; E. S. Oldham, M.D., Breckenridge; C. Allen Payne, M.D., Grand Rapids; and Wm. J. Burns, Advisor.
- 1961 Michigan Clinical Institute Television Committee: Donald H. Kaump, M.D., Chairman; Richard J. Bing, M.D.; James B. Blodgett, M.D.; John R. Brown, M.D.; James T. Howell, M.D.; James E. Lofstrom, M.D.; and Eugene A. Osius, M.D., all of Detroit.
- Representatives were appointed (a) to AMA Conference on Disaster Medical Care, Chicago, November 4-6; C. P. Anderson, M.D., and R. J. Roney, MSMS staff Committee secretary; (b) Planning Committee for Leadership Conference on Health Education, Battle Creek, January 27-28; George W. Slagle, M.D., Battle Creek; (c) Nominees to White House Conference on Aging, January 9-12, 1961: S. E. Chapin, M.D., Dearborn; R. L. Fitts, M.D., Grand Rapids; A. H. Price, M.D., Detroit; Jack Rom, M.D., Detroit; C. H. Ross, M.D., Ann Arbor; C. W. Sellers, M.D., Detroit; F. C. Swartz, M.D., Lansing; and C. J. Tupper, M.D., Ann Arbor; (d) AMA Conference on Mental Health, Chicago, January 20-21, 1961: J. M. Dorsey, M.D., Detroit.
- Reports were received from Wm. Bromme, M.D., Detroit, on his coverage of (a) Veterans' Forum, in Indianapolis, September 17; (b) from Chairman Meier on Councilor Conferences held in all Districts prior to MSMS Annual Session; (c) from Dr. Wickliffe on his attendance at Kentucky State Medical Association meeting, September 21-22, in Louisville; (d) from PR Chairman R. W. Teed, M.D., Ann Arbor, on AMA Public Relations Institute, Chicago, August 26-27; (e) from E. C. Swanson, M.D., Vassar, and Executive Director Wm. J. Burns on AMA Disciplinary Committee, meeting in Chicago, September 12-13.

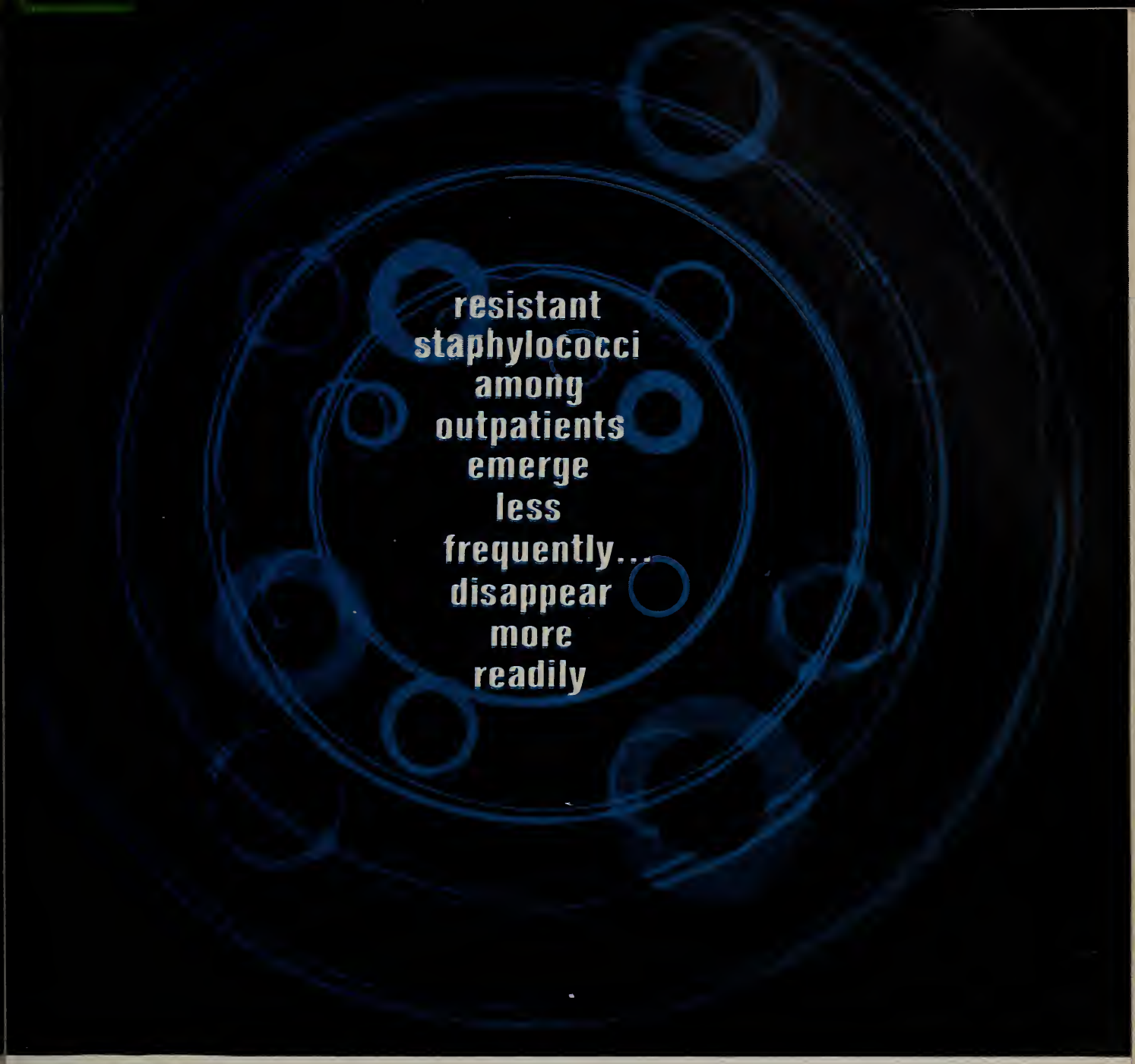
Medical Journal Editors Get Help at Conclave

A regional state medical journal editors conference covered many items recently at Lexington, Kentucky, the event sponsored by the *Journal of the Kentucky State Medical Society*. There were 19 on the program with about 79 registrants from 27 states. Among those attending were editors, medical society presidents, educators, and others.

One of the conference highlights was a panel comprised of the editors of the four award-winning journals which were honored at the 1959 State Medical Journal Advertising Bureau's Conference of Medical Journals. The four—who received plaques at the 1959 national meeting—included the Journals of the state medical societies of Michigan, Georgia, Minnesota, and the Rocky Mountain states.

There was another panel about the editorial page,

(Continued on Page 1768)



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IN VITRO SENSITIVITY OF COAGULASE-POSITIVE STAPHYLOCOCCI TO CHLOROMYCETIN FROM 1955 TO 1959*

These sensitivity tests were done by the disc method on 310 strains of coagulase-positive staphylococci. Strains were isolated from patients seen in the emergency room. It should be noted that among inpatients, resistant strains were considerably more prevalent.

*Adapted from Bauer, A. W.; Perry, D. M., & Kirby, W. M. M.: *J.A.M.A.* 173:475, 1960.

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CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100.

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

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Medical Journal Editors

(Continued from Page 1766)

what it should contain, sources of material and questions of policy. There was a discussion by the president of the pharmaceuticals manufacturers association. And there was a panel for questions. On the panel were represented the Journals of Texas, Virginia, Tennessee, and South Dakota.

There was a reception and dinner following a visit to the new—still uncompleted—medical department of the University of Kentucky, a $25 million installation.

The next day was a consideration of the changing concept of the foundation of state medical journals. A professor of journalism gave an evaluation of typography of the state medical journals. There was a discussion on tightening the belt, a survey and a study of changing advertising policies and conditions. The advertisers and pharmaceutical manufacturers are not spending so much money in advertising. The Journals making up the State Medical Journal Advertising Bureau have already this year seen a drop of 15 per cent in income and 12 per cent in number of pages.

County Secretaries---Public Relations Seminar Soon

More than 150 local medical society leaders will assemble in East Lansing on January 28-29 for a concentrated day-and-a-half meeting to explore self-improvement in the areas of county medical society activities and public relations.

County Secretaries Chairman J. B. Rowe, M.D., of Flint, and MSMS Public Relations Chairman R. W. Teed, M.D., Ann Arbor, will chair the separate workshop meetings and share leadership in developing the program.

High on the list of important subjects which will be discussed is Michigan's new Medical Assistance for the Aged program. This plan will be explored in depth with the help of the best experts on every phase of the program.

On Saturday evening, the MSMS annual Awards Banquet will be held, with awards going to MSMS members who are presidents of national medical and health organizations. In addition, awards will be made to lay individuals for their contribution in furthering medical programs and projects.

Invited to the meeting as guests of MSMS are presidents, presidents-elect, secretaries, editors, PR chairmen, and executive secretaries of county medical societies. Representatives of the Woman's Auxiliary and Medical Assistants Society also will be invited.

Honored for Long Service

Members of the Calhoun County Medical Society and invited guests recently honored Wilfrid Haughey, M.D., on his 80th birthday anniversary. Joining the Calhoun doctors at the banquet were representatives of the Kalamazoo and Jackson societies and also officials of the Michigan State Medical Society.

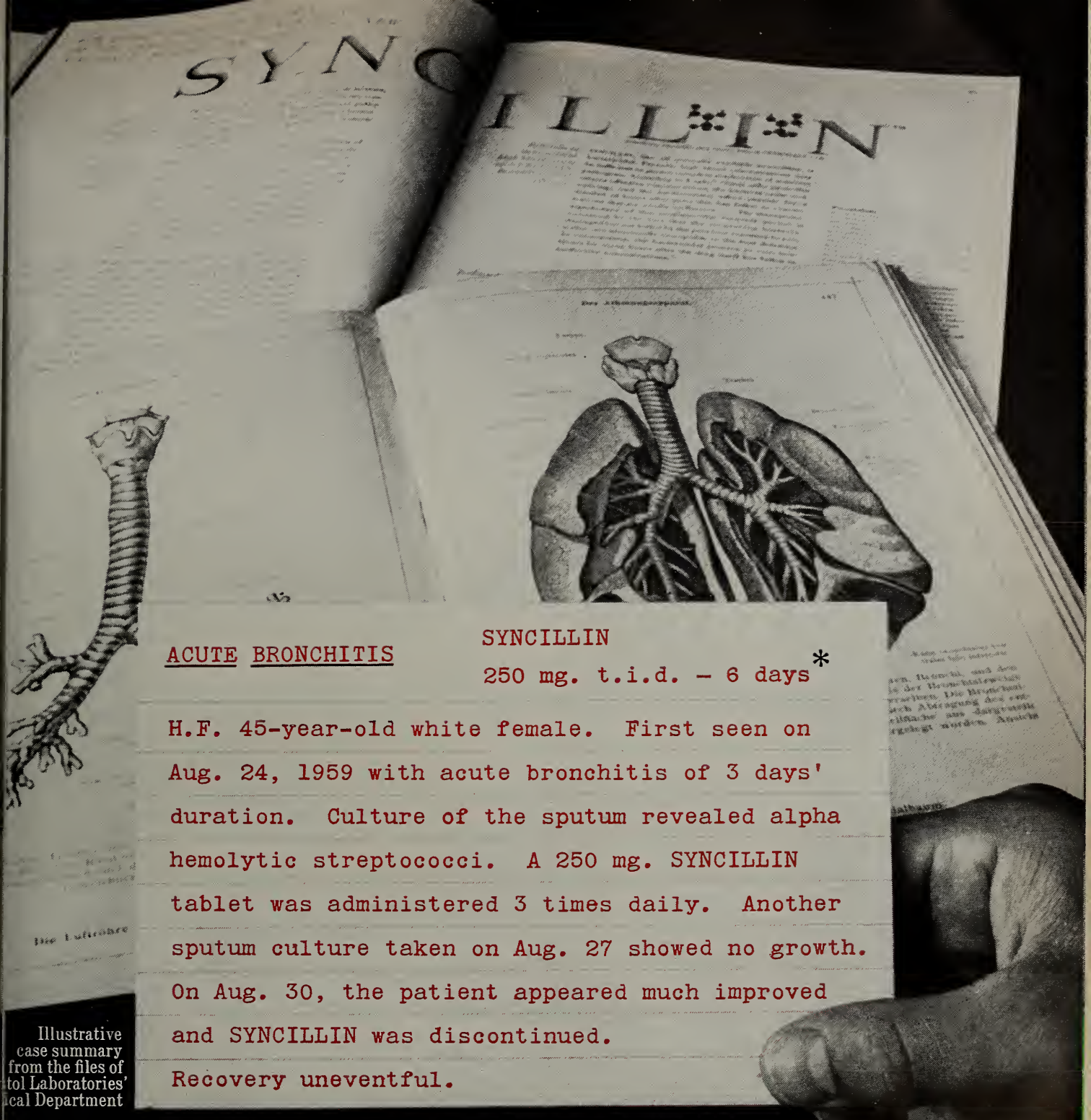
Admiring the certificate given to Wilfrid Haughey, M.D., on his 80th birthday anniversary, are George W. Slagle, M.D. *(right)*, past president of MSMS, and G. Thomas McKean, M.D. *(left)*, president of Michigan Medical Service.

Speakers pointed out in lauding Doctor Haughey that he had practiced medicine in Battle Creek since 1906 and had served the medical profession for 50 years in numerous and important county and State Medical Society positions. Doctor Haughey has held all offices in his county society, in 1949 was president of MSMS for a day, and has served as president of Michigan Medical Service. He has served as editor of THE JOURNAL from 1910 to 1912 and again from 1942 to date.

(Turn to Page 1774)

Michigan Medical Meetings and Clinic Days

January 20-21	Ninth Annual Symposium on Blood	Detroit
January 28-29	MSMS County Secretaries—Public Relations Seminar	East Lansing
March 8-10	Michigan Clinical Institute	Detroit



ACUTE BRONCHITIS

SYNCILLIN
250 mg. t.i.d. – 6 days*

H.F. 45-year-old white female. First seen on Aug. 24, 1959 with acute bronchitis of 3 days' duration. Culture of the sputum revealed alpha hemolytic streptococci. A 250 mg. SYNCILLIN tablet was administered 3 times daily. Another sputum culture taken on Aug. 27 showed no growth. On Aug. 30, the patient appeared much improved and SYNCILLIN was discontinued. Recovery uneventful.

Illustrative case summary from the files of tol Laboratories' ical Department

THE ORIGINAL phenethicillin

SYNCILLIN®

(phenoxyethyl penicillin potassium)

FIRST SYNTHESIZED AND MADE AVAILABLE BY BRISTOL LABORATORIES

A dosage form to meet the individual requirements of patients of all ages in home, office, clinic, and hospital:

Syncillin Tablets – 250 mg. (400,000 units)... Syncillin Tablets – 125 mg. (200,000 units)
Syncillin for Oral Solution – 60 ml. bottles – when reconstituted, 125 mg. (200,000 units) per 5 ml.
Syncillin Pediatric Drops – 1.5 Gm. bottles. Calibrated dropper delivers 125 mg. (200,000 units)

Streptococcal infections should be treated for at least 10 days to prevent the development of rheumatic fever and as prophylaxis against bacterial endocarditis in susceptible patients.

Complete information on indications, dosage and precautions is included in the

BRISTOL LABORATORIES, Div. of Bristol-Myers Co., SYRACUSE, N.Y.

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Excerpts from Annual Report of House of Delegates Committee to Review Financial Structure of MSMS

Published upon instruction of 1960 MSMS House of Delegates which approved the Annual Report of this Committee

This Committee was originally authorized by the House of Delegates on September 27, 1955. Its first report was made on September 24, 1956. On September 25, 1956, the House of Delegates ordered the appointment of a similar committee at three-year intervals. This current committee was appointed immediately following the 1959 meeting of the House of Delegates. Members of the Committee are: Otto K. Engelke, M.D., of Washtenaw, Chairman; A. B. Gwinn, M.D., of Allegan, S. E. Chapin, M.D., of Wayne, W. B. McIntyre, M.D., of Wayne, H. B. Zemmer, M.D., of Lapeer.

Average monthly expenses of the Michigan State Medical Society are a little difficult to estimate. However, in 1957, they amounted to $36,881.00 after deducting the amount of American Medical Association membership dues which are an in-and-out item.

In 1958 they were up to $43,301.00 (after taking out the AMA). However, this included costs of the land for the new headquarters building of $65,000.00 or $5,200.00 per month average.

In 1959 they were up to $62,919.99 approximately, less AMA, but including payments on the construction of the new headquarters building.

A good estimate of current costs per month would be approximately $43,000.00, not including AMA dues and not including payments on the new headquarters building. This figure would include approximately the same 5 per cent increase in costs each year since 1957 and include the normal functions of MSMS such as printing THE JOURNAL and operating both the Michigan Clinical Institute and the Annual Session, et cetera.

* * *

THE 1960 BUDGET, which includes 1958 and 1959 expenditure figures, was received and carefully reviewed by the Committee. Past and current programs were reviewed. Future needs were examined. (See March JOURNAL MSMS, Page 469.)

Sections of the report of the auditors as of November 30, 1959, were also reviewed. (See March JOURNAL MSMS.)

The Committee also reviewed the consolidation of 1960 budget estimates of MSMS income and expense.

Membership and income figures for the depression and war years were reviewed to determine the effect of hard times and membership depletion in the resources of the Society.

It was noted that unpaid memberships reached a peak of 450 during the depression, less than 20 per cent of members and that military non-paying members reached an average of about 26 per cent for four years during the last war.

It is conceivable that during another war this figure may be much higher with many doctors pressed into military and civilian defense duties. The Committee believes therefore that an effort should be made to maintain reserves even throughout the period of new building construction and cost retirement.

The Committee noted that The Council had acted to set aside $100,000 reserves to permit the Society to meet emergencies during this period.

* * *

THE COMMITTEE CAREFULLY studied Society finances for the future including the immediate future in which a good bit of Society reserves would be used to finance the headquarters building and to continue the "Campaign for Freedom" and "Care of the Aged" educational efforts.

The Committee noted that headquarters building costs had risen even beyond the expanded cost estimated for and approved by the delegates in 1958—a standard pattern in current construction. Construction costs always exceed estimates apparently.

The 1959 MSMS House of Delegates approved the Big Look Committee's report (See Supplemental Report of The Council) that the new building would cost $602,295 exclusive of land and furnishings.

In this case, it should be noted that the present building size is more realistic in view of the anticipated rapid growth of the State and the medical profession which serves the state.

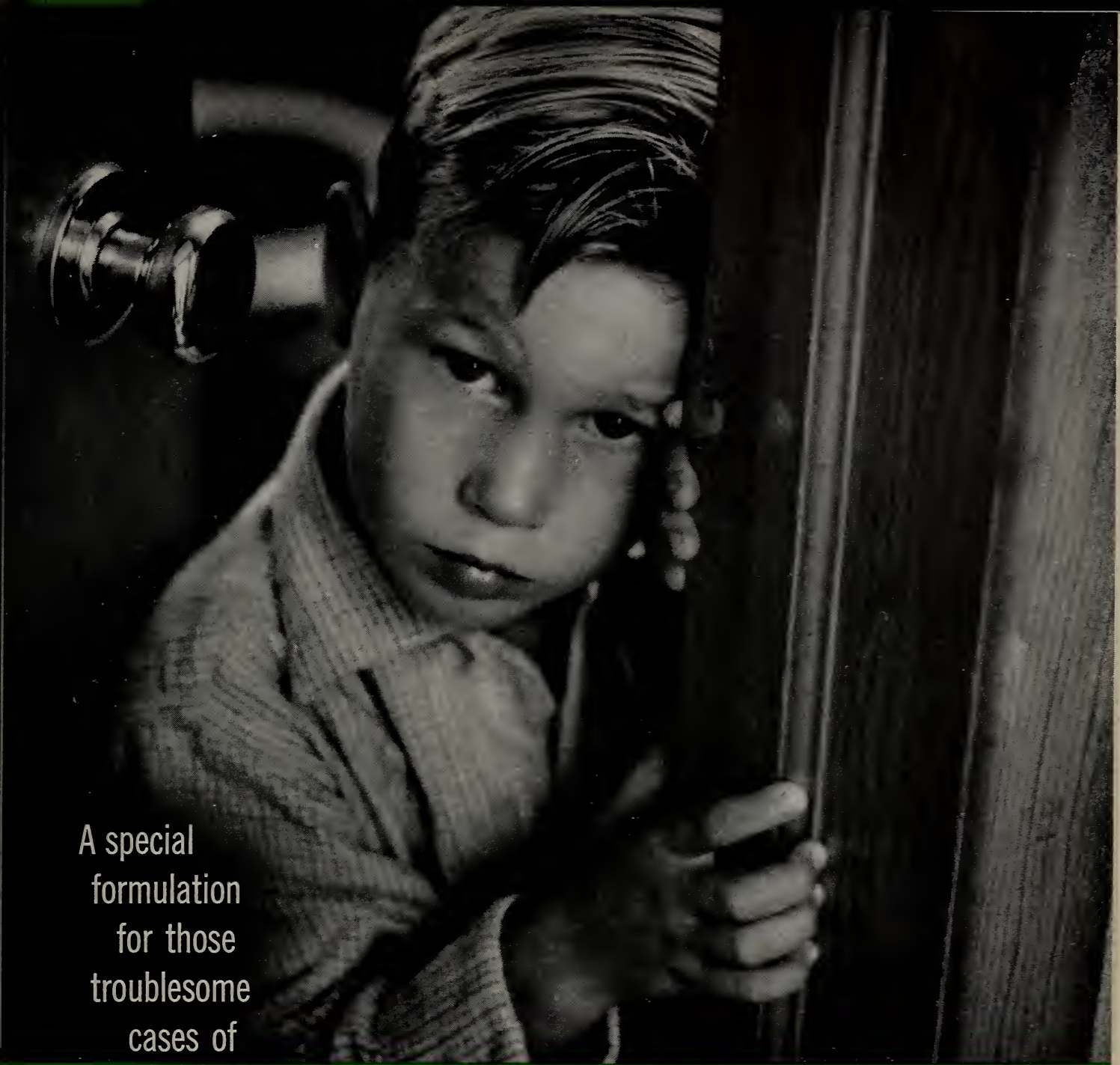
The 1960 census preliminary figures have confirmed the judgment and foresight of the Big Look Committee and The Council in providing maximum rather than minimum facilities. Too many new buildings are too small the day they are occupied. The 12,000 square feet in the original estimates would have been inadequate.

* * *

THE COMMITTEE INSPECTED the building and reviewed the plans for the completion of the headquarters. They concurred in the belief that the 20,000 feet of space provided should be sufficient for the MSMS needs for the foreseeable future unless there were an extraordinary growth of the M.D. population in Michigan.

The Committee also concurred in the belief that the headquarters provided a "quality" but not lavish home

(Continued on Page 1776)



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Donnagel® with paregoric equivalent

Provides greater assurance of more comprehensive relief in acute self-limiting diarrheas through the time-tested effectiveness of two outstanding antidiarrheals—DONNAGEL and a paregoric equivalent. *Tastes good, too!*

Each 30 cc. (1 fl. oz.) of DONNAGEL-PG contains:

Powdered opium U.S.P. (equivalent to paregoric 6 ml.)	24.0 mg.
Kaolin	6.0 Gm.
Pectin	142.8 mg.
Natural belladonna alkaloids	
hyoscyamine sulfate	0.1037 mg.
atropine sulfate	0.0194 mg.
hyoscine hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

SUPPLIED: Pleasant-tasting banana flavored suspension in bottles of 6 fl. oz.

Also available:

DONNAGEL® with NEOMYCIN — for control of bacterial diarrheas.

DONNAGEL® — the basic formula — when paregoric or an antibiotic is not required.

A. H. ROBINS CO., INC. Robins
RICHMOND 20, VIRGINIA

Financial Structure-MSMS

(Continued from Page 1774)

for a Society which should maintain a proper public appearance.

The Committee noted that the new State Bar building costs were approximately the same per square foot as those of the new Medical Society structure and that the latter made a better appearance and was more functional.

The need for the negotiation of all or part of a $300,000.00 loan at favorable interest rates to maintain the Society and complete the headquarters was noted by the Committee.

Doctor McGillicuddy and the Committee discussed the current financial situation of the Michigan State Medical Society and advised the Committee members of his philosophy and the need for economy and necessary borrowing in 1960 to complete the new MSMS headquarters building, now under construction, and to finance the anticipated deficit in the general Society operations for the current year and future years. He also pointed to the need of an adequate income from dues to meet building and rising operation costs.

General Operation

However, the general operations of the Society indicate the following (exclusive of the new headquarters construction and future maintenance) :

Estimated income from membership dues based on 5,750 members at $65.00	$373,750.00
Allocation of $15.00 per member to new headquarters fund	86,250.00
Net remaining for operations of MSMS programs	$287,500.00
With depletion of reserves, interest and miscellaneous income will be very limited. The Annual Session, Michigan Clinical Institute and THE JOURNAL usually provide sufficient funds to pay their own way or one profit will offset any loss in the other. These can then be omitted.	
The 1960 budget of all items except the above omission totals	$316,823.53
An estimated loss in 1960 on General Society operations of	$ 29,323.53

Since most or all of the present reserves will be depleted by the end of 1960, a further increase in membership dues would permit replacement of some of these emergency funds during the same period the new headquarters is being paid for. If $10.00 per member were added this would cover the deficit and leave $28,750.00 for investment in reserve funds each year. Thus by the time the new headquarters is paid off (in approximately six years) the reserves for emergencies would again be built to approximately $145,000.00. The need for such emergency funds cannot be overemphasized with such programs as the Forand-type legislation and other national and state emergency programs which are trying to change the free private practice of medicine into government-controlled and governmentally-operated services.

Salaries of the executive staff of the MSMS and member officers were reviewed. Comparisons were drawn with other societies with activities compared to those of the MSMS. The Committee found that our Society was very conservative in its reimbursement of these men. Lower echelon paid staff salaries and benefits were found to be in line with others in similar jobs in Lansing.

Conclusions

1. The officers and professional staff of the MSMS are to be commended again for their leadership in a program which is sound and well administered.

(a) The AMA Delegates and Alternates as well as members of The Council, committees and others active in the Society make a very valuable contribution to the public and Society welfare at a significant personal sacrifice in most instances.

(b) The part-time officer and full-time key professional staff salaries are conservative. Other salaries and benefits are standard for comparable work.

2. The MSMS dues picture over the past few years, while conservative, has permitted the Society to maintain its leadership among other state societies in matters of national and universal interest. This financial support has also permitted the Society to provide excellent state and local education and extraordinary services to the public and to member physicians.

At the same time, the Society has been able to provide appropriate quarters for its many activities without too much financial strain.

Rising costs cannot be ignored, however, here as elsewhere. A dues increase will be required to continue the orderly progress of the Society. The Committee recommends a ten dollar increase to $75.00 per year starting at the beginning of 1961 subject to subsequent actions of the House. This should permit a continuation of MSMS activities at their present level with the accumulation of reserves to meet unforeseeable emergencies and should permit paying off the loan on the building in about six years. The Committee recommends a dues increase rather than an assessment because dues are income tax deductible.

3. The Committee recommends the study of the establishment of a "ways and means" type of reference committee of the House of Delegates to appraise the costs of new or special House of Delegates projects before they are voted by the House.

4. The Committee recommends that another Finance Study Committee of the House be established in three years to function as have the committees of 1956 and 1960.

"As Others See Us"

By R. W. Teed, M.D., Chairman,

MSMS Public Relations Committee

PART II

REPORT OF AMA PUBLIC RELATIONS INSTITUTE

On the second day of the AMA Public Relations Institute, a panel of publicists spoke on the subject "Don't Hide Your Light."

Charles Harrison, News Director of WEEK-TV in Peoria, Illinois, spoke on the difficulties in getting accurate news on accidents and illnesses about big-name people, et cetera. The attitude of the nurse on the phone and of the reporter asking for news is of importance in getting a story.

John F. Rineman, Executive Assistant of the Pennsylvania Medical Society, who viewed the problem as one of personal contact, said he tried to visit each radio and TV station in the state every year or so. Occasionally, he found that a station had problems with the local medical society, and he attempted to find solutions for these.

Loren G. Schultz, City Editor of the *Springfield* (Ohio) *Daily News*, defined public relations as "any situation, act or word that influences people." Good publicity will not make up for poor public relations, of which the basis is the Golden Rule.

James Regan, M.D., Los Angeles, AMA Physicians Advisory Committee on Radio, TV and Motion Pictures, stated that in 1954, after the sponsorship of "Medic" by the Los Angeles County Medical Association, a committee was set up by the AMA to advise medical societies on the problems of putting on good programs. This committee also advises the TV networks on drug advertising, and set up a code regarding TV handling of hypnosis. It also helped nurse recruitment by getting a nurse on "Queen for a Day."

Six PR Possibilities

A panel of six speakers titled "Six for the Sixties" presented six representative public relations programs:

Leo J. Nolan, M.D., PR Chairman of the Clear Creek Valley (Colo.) Medical Society, described the manner in which the Society reacted to an attack by a newspaper editor. (1) Distributed the Family Health Record with good results. (2) Promoted the polio immunization program by distributing 10,000 envelopes to stores which gave trading stamps. On the face of the envelope was the statement "Stamps are valuable but polio immunization is even more valuable." The stamps were placed in the envelopes. Public response was excellent. (3) Distributed plastic airways for use in mouth-to-mouth resuscitation to every physician, ambulance driver, and member of police and sheriff force. (4) Built a home for the aged in cooperation with the federal government.

Elden E. Husten, Administrator of the Iowa Physician's Political League, Des Moines, described the formation of the League in order to encourage physicians to become active politically. An organization of this type is necessary because the State Medical Society cannot engage in political activities. The objects are (1) to elect friends of medicine, (2) to encourage the best candidates to run, (3) to solicit funds and (4) to stimulate doctors to vote and to become active in political affairs. One physician in each county society is appointed to serve as contact man with the local representative and candidates. All of the eight districts in the state are also organized and back selected candidates.

A. J. Kuhlman, Executive Secretary of the Orleans Parish Medical Society, New Orleans, Louisiana, described the tetanus immunization program carried out by this society. Papers on the subject were collated and distributed to all members. Posters were placed in all hospitals, medical schools, drug stores, etc., and letters were sent to all trade and union organizations. News media all received releases. A satisfactory response was obtained.

John C. Kadonsky, public relations manager of the Milwaukee County (Wis.) Medical Society, described the Health Classes for Senior Citizens put on by the Society. These were held in a large public auditorium and addressed by various members of the Society. Given away were the "Health Card," and a reprint from "Today's Health" entitled "How Old Are You?" Mr. Kadonsky recommended that other societies which do this arrange a tie-in with a local TV program in order to reach shut-ins and people in old folks homes.

Orson P. Smith, Jr., M.D., Jefferson County (Ky.) Medical Society, described his county's project of presenting the doctor as a person—how he spends his time other than in his work. He found that it was difficult to get physicians to admit talents in other fields, but after considerable investigation 62 displays of interest were found and presented at the Brown Hotel in Louisville. The press took a new look and published an image of physicians trying to be productive in other fields.

Everet H. Wood, M.D., Bernalillo County (N. M.) Medical Society, described how he formed a "Future Doctors Club" in connection with the Kiwanis Club which has a vocational guidance program. He arranged a meeting with 14 outstanding students who expressed an interest in biological sciences, and explained the advantages and disadvantages of medicine as a career. He also took them in pairs through the various departments of the hospital. All of these 14 are now studying biological science. In two years, he has had a total of 47 students, 64 per cent of whom were girls.

In conclusion, I would like to repeat two quotations: the first, "Public Relations is any situation, act or word that influences people," and the second, "Public Relations is like making love—you have to participate to make it work."

Doctors Participate In MSU Career Event

For the first time, the medical profession participated in the 12th annual Career Carnival at Michigan State University.

Two Ingham doctors, Harry Schmidt, M.D. *(left)* and D. Bonta Hiscoe, M.D. *(right)* counsel with a Michigan State University student at the MSU Career Carnival.

An attractive exhibit, manned by doctors of medicine, was presented by the Michigan State Medical Society and the Ingham County Medical Society. MSMS handled the exhibit details, while the county society members manned the exhibit.

An estimated 12,000 students visited the Carnival.

"It is said by some that men will think and act for themselves; that none will disuse spirits or anything else because his neighbors do; and that moral influence is not that powerful engine contended for. Let us examine this. Let me ask the man who could maintain this position most stiffly, what compensation he will accept to go to church some Sunday and sit during the sermon with his wife's bonnet upon his head? Not a trifle, I'll venture. And why not? There would be nothing irreligious in it, nothing immoral, nothing uncomfortable—then why not? Is it not because there would be something egregiously unfashionable in it? Then it is the influence of fashion; and what is the influence of fashion but the influence that other people's actions have on our actions—the strong inclination each of us feels to do as we see all our neighbors do?"—Abraham Lincoln

AMA Seeks to Advise on Wise Use of Health Care Dollars

The American Medical Association has launched a "comprehensive study and action program" to guide the consumer in spending his health care dollars more wisely.

The AMA program, dedicated to promoting the highest quality health care at the lowest cost, can help the consumer dramatically reduce his expenditures on health care without lowering the quality or effectiveness of it one bit.

Purpose of the effort is to arm the consumer with facts in the hope that he will use them.

One of these barriers is the ineffectiveness of a vast number of non-prescription or over-the-counter drug products which the AMA says is currently being used by the public in great quantities and at a cost running into millions of dollars annually.

The AMA said physicans also owe it to their patients to discourage them from "throwing their money out the window" on devices, so-called "cures," food fads, "health literature," and many other forms of quackery currently bilking the American public out of additional millions of dollars a year.

"The average American family now spends about $18 a month on non-prescription or over-the-counter products. While these drugs are safe for unsupervised use in most cases, many of them actually bring little benefit from a health standpoint and, for the most part, represent dollars wasted.

"The goal of the AMA program is a higher quality of health care for a greater number of people at a lower cost."

Blue Shield Enrollment Up

The 74 Blue Shield Plans reported a net gain of 151,394 new members during the second quarter of 1960, bringing total enrollment to 45,798,636. Blue Shield now has enrolled one of every four persons in the United States, and almost 15 per cent of the total Canadian population, the national association reports.

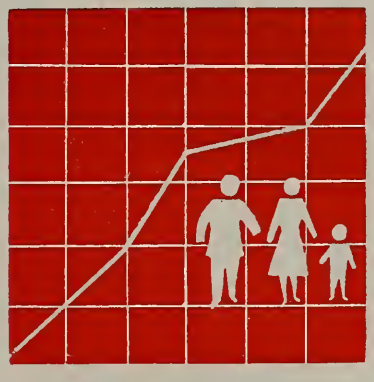
Health Insurance Benefits Gain

Health insurance benefits are up over 8% this year compared with last year. Patients collected $8.6 million a day from insurance companies in the first half of 1960, the Health Insurance Institute reports. In the same period of 1959, the sum was less than $8 million per day. Biggest hike, 26%, come in payments for major medical.

Dependents Covered, Too

Nine of ten group health insurance policies issued by insurance companies provide coverage for dependents of employees as well as the workers themselves. The Health Insurance Institute reports that in 1959, insurance companies issued nearly 21,000 new master group hospital expense policies and almost 19,000 of these extended protection of the policy to dependents of the employees.

SOCIO ECONOMICS 1785



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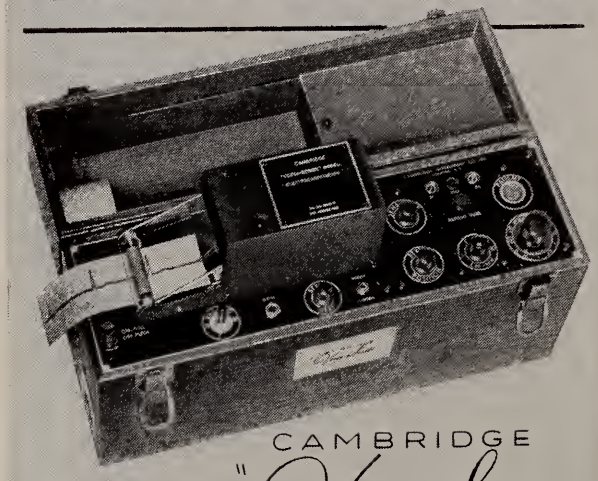

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THE VERSATILE ELECTROCARDIOGRAPH

The "Versa-Scribe" is a completely new instrument offering features of convenience, superior performance and versatility not now available in any other portable direct-writing Electrocardiograph.

Use of the most modern electronic techniques, including transistors and printed circuits, combined with the craftsmanship of skilled instrument makers of long experience, has not only made possible a superior performing electrocardiograph, but one possessing fine appearance, small size (5¼" x 10½" x 17"), and low weight—20 pounds.

Send for literature or a demonstration, Doctor. The "Versa-Scribe" will be your "electrocardiograph of choice."

It does more—better!

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the "Simpli-Scribe" Direct Writing Electrocardiograph shown, the "Simpli-Trol" Portable Model, Multi-Channel Recorders, Pulmonary Function Tester, Operating Room Cardioscopes, Educational Cardioscopes, Electrokymographs, Plethysmographs, Research pH Meters, and Instruments for Measuring Radioactivity.

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1786

Says Senate Finds No Wrongdoing by Drug Firms

The Senate Subcommittee on Antitrust and Monopoly this fall "found no evidence of wrongdoing in the pharmaceutical industry," in spite of sensational charges stemming from an investigation.

On the contrary, according to Austin Smith, M.D., president, Pharmaceutical Manufacturers Association, "the contributions and achievements of the industry in the public interest have been recorded for posterity."

Although some critics of the industry made headlines, their charges were "demolished" on cross-examination and by the rebuttal testimony of experts, Dr. Smith said, adding, "and several witnesses admitted under questioning that they lacked professional qualifications to testify on the subjects under discussion."

U-M to Study Hospital Costs Across Nation

A major national study of hospital costs will be directed by Prof. Walter J. McNerney, director of The University of Michigan Bureau of Hospital Administration, supported by a grant of more than $126,000 from the Health Information Foundation.

The study will involve between ten and twenty general hospitals. It will relate the "input" of personnel, supplies, and equipment to the "output" of these hospitals in terms of patient services, education, research, and public health programs.

The study also will analyze relationships between costs, expenditures and sources of income for the hospitals. It will examine how expenditures vary with qualitative factors and how hospital costs compare with broad economic phenomena.

According to Prof. McNerney, the study should yield a better appreciation of the factors which comprise hospital costs, how these vary over time, how justifiable they are, how they are related to productivity, and how they fit the overall economic perspective.

Ninety per cent of the practicing physicians in the U. S. have retirement plans to provide for their old age, a national survey revealed. Of the 10 per cent without such plans, 25 per cent are under thirty-five years of age. Slightly more than 4 per cent of the MDs between fifty-five and sixty-five are without some retirement plan.

* * *

Nearly 3,000 northern California dentists have approved a prepaid dental insurance plan which would cover a family's basic dental needs at a cost of approximately $10 a month.

1960 White House Conference On Children and Youth

Follow-Up in Michigan

Sam Rabinovitz
Detroit, Michigan

THE PREVIOUS White House Conferences on Children and Youth which have been called by the President once every ten years have dealt with problems and needs which have changed with the times. Physicians have had an important role and have contributed in the planning, operation, and follow-up of each of these conferences. This leadership has benefited the total well-being of the nation's children. The medical profession, therefore, has a continuing role and stake in the 1960 White House Conference.

The Sixth Decennial White House Conference on Children and Youth, called by President Dwight D. Eisenhower, was held in Washington in the spring of 1960. Following the practice established in earlier conferences, it was truly a working partnership of all responsible professions, groups, agencies—both public and private—and individuals with an interest in children. This partnership was evident in the balance maintained on the planning as well as the delegate level. Of the ninety members on the broad national planning committee, there were ten Doctors of Medicine; of the fifteen vice-chairmen, three were physicians. For the first time, young people in sizable numbers were included and while government participated, it did not dominate.

The 1960 conference, following the pattern and the evolving base of previous White House Conferences, was called to consider the important needs of this generation of children and youth, just as previous conferences were convened to look at the urgent problems of young people of those generations. Thus, the first conference called by President Theodore Roosevelt in 1909 was devoted to finding ways to help needy children stay in their own homes and to keep the family together so children would not be placed in alms houses and institutions. The 1919 conference called by President Woodrow Wilson formulated the first important body of child health and child welfare standards. President Hoover directed the 1930 conference to bring together the wealth of accumulated research about child health and development, and to decide how this information could be translated into improved practices. The conference did a great deal to advance the profession of pediatrics and to pinpoint the need of specialized training for those working with children and youth. When President Truman called the 1950 conference, the principal focus was to look at the healthy personality of the child, including the physical, mental, emotional, spiritual, and moral aspects of his total personality, and to understand and strengthen

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the contributions of the several interrelated disciplines that affected the healthy development of our children.

Many significant changes have occurred since 1950 in our nation and world, and in the way which we live. President Eisenhower, in his directive to plan the 1960 conference, stated: "The rapidly changing times in which we live and the increasing fast pace of change make it incumbent upon us to plan ahead so that we can prepare today's children well for life in tomorrow's world." Based on this challenge, the official purpose of the conference was formulated. It was to find ways "to promote opportunities for children and youth to realize their full potential for creative life in freedom and dignity." In carrying out this purpose the conference was concerned not only with the services and programs of our communities, states and nation; it likewise gave attention to the values and ideals of our society and how they can be transmitted to our young people.

More than 50,000 Michigan people, representing many views and interests, participated and contributed to the state's outstanding pre-conference preparations for the Washington conference. This work was started two years before the 1960 conference was held. Many agencies, groups, and associations, likewise, had a hand in the state's extensive preparation efforts. They were asked to share in this responsibility by the Michigan Youth Commission, which was designated as the official state planning group for the conference by Governor Williams. (The thirty-five representative lay and professional adult leaders and three young people who make up the Michigan Youth Commission are truly a dedicated group of citizens. Since it was established more than ten years ago, it has achieved impressive results by the many important children's programs and services it has helped to strengthen or bring into being.)

Drawing on the information and views obtained by citizens in all parts of the state through community surveys and area conferences, the facts submitted by professional groups and voluntary and public official agencies, and the reports compiled by our state agencies, the Michigan Youth Commission prepared its White House Conference report, "Children and Youth in Michigan, 1960." In it, there is an evaluation of the progress we have made since 1950; it looks at the problems of today's children that are not being met; and it suggests a course of action for the next decade.

This report shows that Michigan can well be proud of the many good things that have been achieved from 1950-1960, and that we have a solid base on which to build in the 60's. The medical profession has had a major share in the progress that was made in strengthening our state's broad health services and programs, and we list some of these achievements.

The Michigan Mortality Study was initiated in cooperation with the Michigan State Medical Society. The joint statement by the State Department of Health and the Michigan State Medical Society on regulating the use of oxygen for premature infants and the utilization of consultation service have helped improve survival of these infants and to almost eliminate retrolental fibroplasia as a cause of blindness. Perinatal studies in a number of Michigan hospitals has resulted in the development of techniques in use throughout many parts of the state. Classes for expectant parents and classes in preparation for childbirth have greatly increased. A comprehensive hospital manual was developed on the safe care of mothers and newborn infants. Workshops for hospital personnel caring for infants have also helped to decrease maternal and infant mortality.

The State Health Department can now set up and administer hearing tests so children with impairment can secure medical and educational care and treatment. Otologic clinics are conducted as an important step in the case-finding program of children with hearing loss. Courses to train locally employed vision and hearing technicians were undertaken with schools of higher learning.

Michigan joined in a nation-wide test of the effectiveness of the Salk vaccine and later carried out programs for the innoculation of its children.

Many more communities are now fluoridating public water supplies.

The establishment of poison control centers in Detroit and Ann Arbor has stimulated interest in other communities to help in trying to reduce the incidence of this second highest cause of death in the two-sixteen-year age groups.

An area amputee program was established to provide specialized services in treatment and training in the use of prosthetic devices to child amputees, and incorporates specialized training for professional personnel. A program of prophylaxis for rheumatic fever has been set up. Medical eye services for the prevention of blindness were established.

Progress has been made in standardizing a school health form and in understanding school mental health needs, the problems of the physically handicapped, and encouraging pre-school health evaluations. Our expanded, special local school programs for the mentally and physically handicapped are helping many more of these youngsters develop their fullest potentialities, and the recently authorized special program for the emotionally disturbed can be expected to do much for those children. Our visiting teacher services in the local schools for children with symptoms of social and emotional maladjustments have been expanded. Legislation enacted that makes it mandatory for students to have driver training in our schools has resulted in a program which is outstanding in the nation. The State Safety Commission is developing ways to reach the teen-age driver.

Michigan has made important strides in providing in-patient and clinic facilities and services on state and local

levels for the care and treatment of our children who are emotionally disturbed, mentally ill, and mentally retarded. Research and training of personnel have been expanded.

The State Board of Alcoholism was established to promote and encourage the teaching of factual information in schools about the use of alcoholic beverages and is developing formal and informal education programs for teen-agers.

These, then, are the plus side of the ledger of where we stand in Michigan. The basic health needs which must be included in our concern in the next decade are challenging ones and will be mentioned later.

The conference participants, some 7,000 strong, came to Washington prepared with information and ideas to define problems and recommend possible solutions. Pre-conference studies and careful preparations by their states, organizations, and agencies—together with the working papers and fact-books prepared by professional authorities and Federal agencies, provided a solid basis for effective participation. Participants worked hard in the large forums and small discussion groups. They sought to understand and evaluate the impact of significant forces on today's children; to pinpoint the problems that were resulting; to assess what we were doing in our homes and communities, states, and nation to meet unmet needs; and then arrived at a meeting of the minds on steps to be taken in the next ten years.

Many recommendations came from the White House Conference, and no magic formulae or quick cures were suggested. If anything, the conference participants re-emphasized the continuing contributions and responsibilities of the important disciplines and professions, the voluntary and public official agencies; the necessity for continued research and study; the importance of co-operation in areas of mutual concern; and the necessity for intelligent citizen awareness, support, and hard work in the decade ahead to achieve the programs and services needed.

More than 600 recommendations came out of the Washington conference. Considering that the well-being of all major groups of the nation's children were considered, this is not surprising. The recommendations covered many subjects, but the ones that received most attention were: family life, education, human rights, health protection, illegitimacy, migrant families, children of working mothers, adoption and foster care, juvenile delinquency, handicapped persons, research, and training. Reflecting the President's challenge, the conference discussions and recommendations focused on the many complicated and pressing problems of children and youth in the 60's.

Can the White House Conference have practical meaning for Michigan? Obviously the many volumes of valuable background papers, fact-books, proceedings and recommendations cannot have equal application to each state and all parts of the country. Michigan, however, is in a fortunate position to derive maximum benefit because the state's pre-conference preparations were so complete and thorough. Michigan and its delegates at the Washington conference were able to contribute in an outstanding way; but more important, Michigan is now able to utilize to the maximum advantage conference findings, conclusions, and recommendations.

What are some of the important basic health needs of Michigan children that should receive our attention in the follow-up decade of the 60's?

1. Health education for parents and children so that they can more fully utilize our sound medical and mental health knowledge.

2. Education of children, in particular adolescents, for future parenthood, and education of expectant parents and new inexperienced parents in physical and mental health.

3. The strengthening of family life and family relationships through individual and community efforts.

4. Adequate health supervision of children, including emphasis on emotional health, from birth through adolescence.

5. Premature centers for newborn infants with sufficient facilities, and personnel who have special training.

6. Maintain and strengthen our immunization programs.

7. Research in the cause and prevention of reproductive failure including sterility, fetal and infant deaths, prematurity, and congenital malformations and other defects resulting in the birth of children who are mentally and physically handicapped.

8. More diagnostic facilities for children with malignancies, retardation, and other special problems.

9. Regional poison control centers with major emphasis on qualified staff and availability of services.

10. Increased concern for the prevention of accidents in the home, in the community and "on the road."

11. Strengthen and expand the teaching of factual information to young people about the use of alcoholic beverages.

12. Expanded facilities and services for the care and prevention of dental defects including fluoridation of public water supplies, topical application of sodium fluoride, and an early treatment of dental caries and orthodontic defects.

13. Concerted community and state planning for the needs of the agricultural migrant and his family.

14. Sufficient financial support to provide medical care for the afflicted and crippled children.

15. Means and method of providing service for the severely disabled, mentally normal child who cannot be cared for in his own home.

16. Full-time health departments with sufficient, qualified personnel for all counties.

17. Sufficient in-patient and clinic facilities and services on state and local levels for the care and treatment of children who are emotionally disturbed, mentally ill, or mentally retarded, coupled with expanded research and training of personnel.

18. Greatly expanded health personnel and facilties for their training.

19. Cooperation on both the community and state levels for the most effective and economic use of our total resources, facilities, and personnel.

Here, then, are a few of the programs and projects to which we must give attention in follow-up of the recent White House Conference on Children and Youth, even as we continue to review, strengthen, and support our achievements of the past ten years. Broadened participation and co-operation by our total citizenry will be needed to move ahead, and more ahead we must if we are to meet the challenge of "the fast changing time in which we live and the increasing fast pace of change."

The doctors of Michigan can be justifiably proud of their accomplishments as citizens and leaders in this state. As more and more people turn to finding sound, positive ways to meet the health needs of children and youth, they will continue to look to members of the "helping professions," and especially to Doctors of Medicine, for guidance and leadership. We know the members of the medical profession can be counted on to continue their tradition of community leadership, and it is sincerely hoped that even more of them will become involved in the community efforts which they will be called on to provide. Only in this way will it be possible to achieve the purposes of the 1960 White House Conference, so well enunciated by President Eisenhower, "To promote opportunities for children and youth to realize their full potential of a full life in freedom and dignity."

Costs of Drugs

Senator Estes Kefauver held hearings to determine actual costs of manufacture of drugs and antibiotics because of a complaint that drug charges are much more than the costs of manufacture. He threatened to force lower prices. Testifying before his committee, President W. G. Malcolm, of the Lederle Laboratories, said the price of antibiotics manufactured by their company has dropped 66 per cent from 1948 to 1958, while the price of shoes, milk and gasoline has increased 20 per cent to 26 per cent.

Lederle, he said, has lowered antibiotic prices in spite of sharply rising costs for materials and services, rapid product obsolescence, and the expenditure of over $100 million for research and development during this period.

The manufacture of antibiotics and other ethical drugs involves great financial risks because of the uncertain return on research investment and rapid product obsolescence in the industry. Lederle has spent thirteen years and close to $12.5 million in its pioneering effort to find an effective live virus oral polio vaccine, but today has no product on the market. The Public Health Service approved a competing vaccine. Lederle is preparing to manufacture the approved strain but will continue work on its own Cox vaccine.

Psychological Factors in Athletic Injuries

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OUR ATTENTION is usually and properly drawn to the physical causes and effects of injuries in competitive athletics. We are concerned with proper training and conditioning of athletes, more effective protective devices, constant scrutiny of the rules of play, and careful medical screening of prospective athletes, all directed toward minimizing the possibility of injury. While none of these efforts should be diminished, there is another area relative to athletic injuries that receives too little attention. Team physicians, trainers, and coaches should be alerted to a consideration of psychological factors as they lead to, or prolong recovery from, injuries in competitive sports.

In our increasingly "civilized," that is, constricted and repressive culture, we find ourselves having to give up certain personal freedoms for the general good of society as a whole. Basic biologic drives cannot be given free reign of expression without coming into serious conflict with the taboos of our time. We are perhaps more familiar with the limitations of sexual freedom, realizing that random gratification of this natural urge leads to serious and dramatic consequences. Today, we find various diversions of the sexual drive a common symptom in the effort of individuals to reach a compromise between drive and prohibition.

Less dramatic, but equally important, is the conflict over expression of aggressive drives. Our distant cave-dwelling ancestors had no problems here—to be aggressive meant to survive a bit longer. In our times, however, uncontrolled aggressive behavior subjects one to incarceration or extinction, or at least to severe censure. The mature and civilized adult is seen as a calm and composed individual who rises above the strife about him and who would think it uncouth to take off his coat, roll up his sleeves, and punch the cab driver in the eye because he had just honked at him when he didn't start off on the green light soon enough. He sublimates his aggressivity into a useful assertiveness in his social and business conduct.

There are two areas where modern man can take off his coat and roll up his sleeves: in wartime military service and in competitive sports. In these areas, like the cave-man, to be unable to be aggressive may mean a short span of survival. Unfortunately, it is not a simple task to switch suddenly from an existence where aggression is bad to an area of endeavor where aggression is good. Some can do it and some cannot.

Each growing child must learn how to achieve an uneasy compromise between his urges to be actively aggressive, motor-wise, and his wishes to be pleasing to his parents. The distinction between sexes in the expression of aggression used to be more clear, but today this is blurred with women assuming male prerogatives and men sharing the woman's role in the home in the worship of "togetherness." It isn't as easy for the child to know that women are like this and men are like that and as a result we seem to be breeding a generation where men assume more feminine behavior and women more masculine behavior. This makes the definition of what is acceptable aggressive behavior in the boy less easy to achieve. His father likes ball games, plays golf, but also washes the dishes and doesn't always seem as powerful as mother. His father seems to approve his son's interest in sports and even seems a bit pleased, though outwardly critical, when he gives the boy next door a bloody nose. At the same time, in a middle-class

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community at least, this will result in considerable conflict with the desire that all children be "well-adjusted," that is, "well-controlled."

The child soon learns that uncontrolled aggressive behavior brings him not gain but pain as he is punished by withdrawal of love by his parents, by stern criticism from his teachers, and loss of comradeship with his peers. The equation becomes clear: that to express aggression means to receive aggression in return—perhaps greater than the child can tolerate or defend against. The child incorporates this disapproval and so develops guilt and anxiety if he is too aggressive and finally feels uneasy even if he contemplates aggression. He is now civilized.

The Problem of Aggression

This young man goes into military service during wartime. He is now told he must kill his enemy, coldly, impersonally, without hesitation. Does he do it? Not very often. Fortunately, modern warfare does not often require such personal killing. When it does, trouble often ensues. Careful observation of American infantry in World War II revealed that when faced with close contact with easily seen enemy troops, an extremely small percentage ever fired their weapons, some cowering in their foxholes passively awaiting their deaths rather than kill even in self-defense. Psychiatric disabilities resulting from such situations almost overwhelmed our medical facilities early in the war. Many of these psychiatric casualties came from the training camps, far from the field of combat where men could not even tolerate the aggression demanded in bayonet drill against straw dummies.

We now turn to the other area where aggression is both permitted and rewarded: competitive athletics. Since participation is voluntary, the situation is not quite similar to wartime military service. We would then expect that a distinguishing feature in athletes would be their freedom of restriction in the expression of aggression. Certainly team sports put a high premium on aggressiveness, especially such sports as football and hockey. In addition, the good athlete has a certain confidence that his expression of aggression will not be repaid by overwhelming retaliation, translated into a feeling he will win, or at least not be demolished, even when facing long odds. A football halfback who anticipates with each stride a bruising tackle or a hockey wing who on each rush awaits a hard check will not be very successful.

Since the athlete is a volunteer, in fact an eager one, it might be expected no problems are to be found here. In the world of the psyche, however, everything is relative, and the degree of this conflict is relative, too. The very urge that forces the young athlete to suffer the many long hours of practice with its concomitant wear and tear on his body is an amalgam of his underlying competitiveness and his fear of this manifested by his conscious pretense he is not afraid.

To be athletic is to be manly in our culture. To the adolescent, the epitome of what is masculine is the athlete, with hero-worship and mimicry a common phenomenon. As pointed out earlier, perhaps a greater problem in our culture than in others is the difficulty a young boy faces in defining himself as male in contradistinction to female. What better solution could there be than to become an athlete?

Thus, we see problems in expression of both aggressive and sexual drives as they face a growing youth about to embark on an athletic career. Two brief case references will illustrate these points:

Illustrative Cases

Case 1.—A young high school boy with little athletic ability but tremendous desire tried out for the baseball team. This boy led a rather sheltered life and was not too confident of himself nor a particularly aggressive person. He had entertained phantasies of being an athlete as long as he could remember as this would give him proof he was a manly and worthwhile person. His phantasies were never realized; instead, he was the perpetual benchwarmer, good enough to make the team due to his tremendous push, but with so little real ability that he made the ideal batting practice catcher. This particular spring it was apparent to him that, though he had been a substitute the two years preceding, he would probably not make the team at all this year because there were some promising newcomers trying out as catchers. Twice that spring he suffered painful bruises on his fingers for failing to keep his right hand closed till the ball was in the mitt. He gritted his teeth however and just tried harder. One day in an intra-squad practice game the same thing happened, this time resulting in a severe fracture of the right index finger. His season was over.

Was he bitterly disappointed? Not in the least. His response was one of relief as he could now leave the field of combat with banners flying high. He had escaped defeat and his splintered finger was a badge of manly combat. Was his injury incurred on purpose? The boy would of course deny this and yet three times in a span of several days he suffered an injury, the prevention of which was well-known to him, that he had not suffered in the previous years he had played baseball.

Case 2.—This is a case of a much more successful athlete. He was an outstanding high school football player, much sought after by several colleges before he enrolled at a large university. Despite his great success, he never felt he achieved sufficient acclaim from his father. His father was a rather distant, non-demonstrative man who emphasized the gloomy side of life with the central theme being that their family wasn't meant for big things. An over-all picture of passivity pervaded the family with only the patient not fitting the pattern. The much less successful and much less aggressive siblings were given considerably more praise by the father. So the message began to get across to this athlete—the more successfully aggressive he was, the more alien and non-understandable he became to his family. He started off his sophomore year in college by running with the first string before the opening game. Unfortunately, he suffered an injury to his leg and missed the opening game. Somehow, the leg didn't respond to treatment and the discouraged athlete limped through drills with the scrubs, no longer noticed by the coaches, until he finally quit the team.

While the injury itself may or may not have had a purposeful reason behind it, certainly the recovery from the injury was prolonged as a solution to the problem. He was now safe from further straying from his family's demand to remain passive.

From these illustrative cases, we see how athletic injuries, or slow recovery from the same, may result from psychological conflict between passivity and aggressivity. In one, the young athlete wants to prove himself by being more aggressive than his ability allows, so must extricate himself by injury before defeat gives him the final proof of what he feels others will perceive as his unmanliness. In the other, a boy with great athletic potential must not allow it to be manifest as the aggressive component of this would cause a loss of love from his passivity-demanding parents. Again injury is the ideal way out.

Counter-Phobia as a Solution

A somewhat more subtle solution to conflict over expression of basic urges is the development of what is termed a counter-phobic reaction. Because of fear of retaliation for the wish to express these aggressive urges when very young, the boy anticipates with terror some form of body mutilation. As a protection against this he develops a pattern of "whistling in the dark," by feeling himself totally unafraid, invulnerable to injury. He tests and retests himself to magically prove he cannot be hurt by daring and even dangerous activities. Typically, he feels very keyed up before facing danger, experienced often as an exhilarating anticipation. After the danger has been challenged successfully, he feels satisfied, often powerful for a short period of time. This is not a real solution, however, and he must repeat this experience over and over. Because this individual must take so many risks, it is only a matter of time before some injury results. This type of reaction may lead men to dare-devil circus activities, auto-racing, stunt-driving, direct combat sports such as boxing and so forth. An example follows:

Case 3.—A young man became a professional motorcycle and auto racer and stunt flier on the county fair level. He had a reputation for foolhardy courage, actually deriving pleasure in watching other drivers spin off the track, and he felt a real thrill when this occurred to him. As a result he suffered several injuries but came back for more with renewed enthusiasm. His background revealed his father was killed in an auto accident when he was six weeks old. On the way to the funeral one of his brothers, his uncle and grandmother were killed in an auto accident. From his earliest memories the patient recalls this gruesome story being retold many times by his mother. His oldest brother many years his senior, became a substitute father and treated him very harshly. One day, this brother and his son were killed in an auto accident and the patient shortly after quit racing and flying, saying he was tired of it. Actually he had become too nervous to continue since his brother's death. His symptoms worsened considerably and he had to enter a psychiatric hospital because of his terror of being injured. He repetitively dreamed of seeing his brother's mutilated body in the morgue which he had to identify.

This man, from early life, felt a terrible vunerability to injury. If such a horrible fate could befall a powerful person like a father, a puny figure like himself had no chance. He anticipated mutilation as a consequence of the most minor expressions of anger. His constant danger-defying activities were of a counter-phobic type, a magical attempt to undo his vulnerability by constantly conquering danger. This tenuous defense crumbled when his hated older brother was killed combined with the added blow of the death of the brother's son, proving finally that not only fathers but sons too are destined to be killed. As a result of his brother's demise, the patient unconsciously felt that his death wishes for his brother were now known and retaliation must surely follow. While his counter-phobic activities were intact, however, this man had many accidents in racing with numerous injuries, most of which were fortunately minor. The law of averages would probably have caught up with him if his brother's and nephew's deaths had not intervened to disrupt his "brinksmanship" way of life.

Situations of Potential Danger

It would be very useful to coaches, team trainers, and team physicians if they could anticipate such situations before they occur. Unfortunately, this is a difficult process since hindsight is better than foresight. Still, being aware of this problem may be of some use in understanding the accident-prone athlete or the one whose bruises seem slow to heal. A few possible situations can be listed which should alert one to the possibility of injuries:

1. A situation is loaded where the degree of athletic ability is grossly out of proportion with the individual's willingness to be aggressive. A boy who wants to play so badly but hasn't much ability or a boy with loads of ability who doesn't want to play very badly are good candidates for the injury file.

2. One should be alerted by a family where the boy's ability to be aggressive or his athletic ability is way out of line with that of his father. Every coach has been plagued at one time in his career by the athletically-successful father who ambitiously pushes his not-too-capable son into sports, forcing the boy into competition for which he is unprepared. As dangerous may be the situation where a boy's ability and aggressivity are much greater than the father's, so that his superiority puts him into the potentially frightening position of defeating his father.

3. The too-aggressive athlete who lacks sufficient control of himself may rush blindly into the fray with the result both he and an opponent or two are stretched out on the turf. As accident-prone is the over-timid athlete who halts almost imperceptibly just before being tackled, and, having lost his momentum, is likely to suffer greater risk of injury on contact.

4. A history of previous athletic attempts which is full of repeated injuries should give pause. We must assume he will be injured again and a serious injury may be the next one on the schedule for him.

5. A frequently-voiced complaint is that, contrary to exaggerating their injuries, or prolonging their recoveries, many athletes make light of their injuries and want to return to action too soon, even concealing rather serious injuries. Such bravery and devotion is commendable within limits, but one should watch carefully when an athlete carries this to extremes. Is he, by overdoing it, trying to prove he isn't afraid because he is afraid? Is he actually seeking to be seriously injured as a just punishment for some deep feeling of guilt, perhaps over his previous conflicted expression of aggression? At the opposite extreme is the cry-baby whose every little bruise needs immediate attention. He's scared and perhaps would be better out of the game before he has to take himself out with a real injury.

6. Sometimes an athlete with promise seems to slip and finds himself more frequently on the bench. Perhaps his dwindling skill represents his inability to allow himself the success he did and could continue to experience. Maybe when he seems to be trying so hard to regain his position he will solve the conflict through injury. This inability to tolerate success, in fact to seek out failure, is one of the more common symptoms seen in psychiatric practice and is certainly one of the most resistant symptoms to treat. It manifests itself in ways other than athletic, such as the young man who needed one hour to get his college degree, but two times failed a two-hour course that would have gotten it for him, then quit college completely.

7. An athlete who seems to relish danger with eager anticipation and who shows an omnipotent feeling of invulnerability may be demonstrating a counter-phobic reaction which will require his taking unnecessary risks till he is finally injured.

Excluded here is a discussion of the frankly psychiatrically ill boy where being injured may satisfy some perverse masochistic need or be representative of a bizarre psychotic phantasy. These situations listed may be found among the kind of boys that try out for every high school, college, and professional athletic team, or who engage in various individual sports.

Summary

While it is proper to continue our major concerns in the areas of conditioning, protective devices, orthopedic and neurosurgical repairs, it would be wise to also be cognizant of the possible role certain psychological factors play in athletic injuries. Of greatest concern in this admittedly ill-defined field is the role played by the conflict over the expression of passivity and aggressivity, and the possible solution through counter-phobia. Several situations are listed where the potential for athletic injuries may be greater than usual.

The Search for Phenylketonuria in Michigan

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In 1934 Folling[1] recognized a similarity between several retarded children by producing a green color on the addition of ferric chloride to their urine. This color change was later found to be due to defective phenylalanine metabolism resulting from a liver enzyme deficiency that is recessively inherited.[2,3] The accumulation in the blood of phenylalanine and its metabolites has been considered to be the cause of the mental deficiency on a toxic basis.[4] Clinical improvement was then noted in some patients treated on a low phenylalanine diet and infants placed on the diet in the first few months have been reported to develop normally.[5,6] In addition to mental deficiency, a great number of children with phenylketonuria are found to be blond, blue-eyed, and to have eczema. Many have convulsions in infancy which frequently are of the "infantile spasm" type. All these manifestations have been found to respond to a low phenylalanine diet.

The recognition of such a treatable disorder has encouraged surveys for its detection The diagnosis within the first few months of life holds the greatest probability of ultimate central nervous system normality. Because a great number of children with mental deficiency are seen in the Mental Study Unit of the Department of Pediatrics we encouraged everyone to routinely test for this disease and we subsequently became interested in the identification of all the known phenylketonurics in the State of Michigan. In the past four years we have identified twenty-one children with phenylketonuria some of whom were initially diagnosed by us and in others the diagnosis was suspected prior to referral. In addition to the identification of out-patients who were seen for appraisals of mental deficiency, the State institutions were encouraged to make surveys in order to identify the committed patients having phenylketonuria. Thus we found a total of eighty-one patients as outlined in Table I. The survey is not yet complete but the testing of other members of phenylketonuric families has been especially important in diagnosing the disorder at an early age in siblings.

TABLE I. INCIDENCE OF PHENYLKENONURIA IN MICHIGAN INSTITUTIONS

Institution	Patients With PKU	Institutional Population
University hospital	21*	—
Private school	4	—
Caro	8	2,025
Coldwater	22	2,746
Farmington	7	235
Ft. Custer	3	803
Lapeer	10	4,200
Mt. Pleasant	11	1,208
Newberry	1	500
Total	81	11,717

*Six patients have been institutionalized and are included in the separate hospital figures.

Tests for Phenylketonuria

Testing for this disorder is simple but may be associated with some technical pitfalls.[7] The following tests are employed in the diagnosis:

1. *Ferric Chloride.*—When a urine specimen can be collected the addition of a few cubic centimeters of either 5 or 10 per cent ferric chloride to 5 cc of fresh urine will lead to the immediate development of an intense deep green color which will fade to a non-specific grey color in a few minutes. The addition of a very small quantity of ferric chloride to a large volume of urine may lead to a cloudy grey percipitate which will not be characteristic of phenylketonuria unless additional ferric chloride is added. The urine should be tested when fresh, otherwise some decomposition may take place especially in hot weather resulting in a false negative response. However, we have kept urine from phenylketonuric patients with a few added thymol crystals for several months in the refrigerator and have still obtained a characteristic re-

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action with ferric chloride. Patients who are taking drugs excrete by-products that may interfere with the test.[8-10] Ferric chloride added to the urine of a patient taking aspirin will be a dark purple and can obscure the typical green color of phenylketonuria. Tranquilizers may also interfere. On the other hand, a false negative test can usually be explained on the basis of technical error rather than due to the low excretion of phenylpyruvic acid. Ferric chloride may also be used in a "diaper test"[11] which is especially useful in early infancy. This too is subject to error since the identification of the green color may escape the inexperienced eye because the green "spot" quickly fades. A false positive test is not too important since this will generally lead the examiner to further testing. However, a diaper that is very grey from long use may obscure a true positive. When the diaper test is to be used in a suspicious child, we have found that the addition of 5 to 10 cc. of distilled water to the diaper, which is then wrung out into a container, facilitates the reading of the test. When ferric chloride is added to this specimen, a characteristic but light green color develops.

2. *Phenistix.*®—The recent introduction of impregnated paper strips known as Phenistix® permits even inexperienced individuals to make a diagnosis of phenylketonuria.[12] Whether the urine is available in a container or from a wet diaper, wetting the chemically-impregnated paper will result in a typical grey-green or green color in the affected child. Because of simplicity it can be used by the mother to test the urine at home after a little instruction. This is particularly valuable when a urine specimen is not available during the period of office examination. We use a Phenistix attached to a small card with instructions for home testing. The results are then returned to us by postcard. We have found Phenistix extremely useful not only in testing children who routinely come through the Pediatric Clinic but in our State surveys. In one institution, eight previously unknown phenylketonuric subjects were diagnosed without elaborate collecting techniques and by inexperienced personnel. However, normal urine may cause a minimal change in the Phenistix color which may be interpreted as positive and require confirmatory testing. Also refrigerated phenylketonuric urine specimens will react more slowly in changing color. Once the color has developed, however, it will still be apparent twenty to thirty minutes later while positive ferric chloride tests fade much more quickly.

3. *Dinitrophenolhydrazine (DNP).*—DNP will produce a cloudy yellow color when added to the urine of a phenylketonuric but this reagent is not readily available.

4. *Blood Phenylalanine Levels.*—Estimation of the blood level is useful in confirming the diagnosis because of the elevated amounts of phenylalanine in all phenylketonurics (25-60 mg. per cent). This procedure is especially helpful in managing the patient in treatment with a low phenylalanine diet. However, it is a special technique and one not often used so that it is not generally available in the average laboratory.

5. *Urine Chromatography.*—Abnormal amino acids characteristic of phenylketonuria can be identified in the urine but again this is a technique requiring considerable time and experience although a recent method permits a more rapid estimation.[13]

Discussion

Phenylketonuria may be present in the young infant without identifiable physical or neurologic abnormalities and can only be detected when the suspicious examiner uses appropriate laboratory tests. It is at this age that the greatest probability of central nervous system normality can be expected with therapy. Actually, any child with central nervous system abnormalities should be tested for phenylketonuria. This would include every infant with seizures or with any retardation of motor milestones such as rolling over, sitting up, et cetera. Older children with behavior problems that are thought to be on a psychogenic basis should be tested since we have identified such a child with normal intelligence who has phenylketonuria.[14] The testing of the siblings of every retarded child is also important but especially the siblings of recognized phenylketonuric subjects. All well babies should routinely be tested but because of the low incidence of the disease (1:20,000[15]) very few infants will be diagnosed in normal populations.

The available tests for this disorder are easily done at minimal cost. Certain technical pitfalls may occur but most can be avoided with a little experience. The possibility of a false negative test however should encourage repeated urine testing in suspicious patients. False positive tests are possible and confirmatory evidence should be obtained before starting a low phenylalanine regimen. Treatment of this disorder is costly, but this is less important than the false hope conveyed to the parent of a retarded child

who is started on a diet that will ultimately prove to be of no benefit.

We have encountered five children in whom this diagnosis was made by urine testing but who later proved to be only retarded without a metabolic defect. Three of these patients had been started on a Lofenalac® (low phenylalanine) diet without adequate confirmation. Blood phenylalanine determinations now make it possible to determine unequivocally if this disorder is present. It is also possible to diagnose this disease in the newborn infant by blood phenylalanine studies while the urine tests may be normal to all routine analysis for phenylketonuria. This latent period may last up to thirty-four days[16] during which the blood phenylalanine level would be elevated with negative urine phenylketonuria tests. One of our infants was diagnosed in the second week of life by blood phenylalanine studies and has never had a positive urine test because therapy with a low phenylalanine diet was started at this time. In general, confirmatory blood phenylalanine levels should be obtained before a patient is started on the diet. Also, occasional determination of levels thereafter are helpful in maintaining an adequately reduced serum phenylalanine level and in avoiding unduly low levels that may lead to some nutritional compromise.

This disease is treated with a diet that reduces the blood phenylalanine to normal levels. Special proprietory low phenylalanine preparations* permit the maintenance of a normal caloric and protein intake. Because phenylalanine is present in considerable quantities in milk and meat, older children must be maintained on virtually a meat-free diet using the protein supplement to provide an adequate nutritional intake. In infancy, the diet poses less of a problem, except for cost, because the preparation can be made up into formula for regular feeding.

Summary

Phenylketonuria is an inherited metabolic disease with serious secondary effects on the central nervous system. Early diagnosis and treatment is possible but depends largely on routine testing in young infants while older patients may have suggestive physical and neurologic findings. The tests for phenylketonuria are simple but require some experience because of technical pitfalls. Therapy is expensive and probably should never be started without confirmatory abnormal serum phenylalanine levels.

*Lofenalac® (Mead Johnson and Company); Ketonil® (Merck, Sharp and Dohme).

Acknowledgment

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Sustained-Release Methylprednisolone (Medrol Medules) In the Treatment of Allergic Disorders in Children

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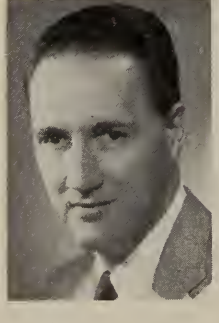
SYMPTOMATIC RELIEF of allergic disorders in children is beset by difficulties compounded of children's generally-rather-severe degree of symptomatology, their lack of comprehension of their illness and their usual lack of previous hyposensitization. It is further complicated by the children's frequent side effects (of rather unpleasant nature) to many antihistimines and bronchodilator preparations, difficulties with taste acceptance and, at times, downright refusal to take oral preparations.

Antihistimines have a recognized incidence of side effects usually of a nature such as to be unacceptable to the child, his parents, or both. Many, if not most, of the preparations for the relief of asthma result in nrevousness, sleeplessness, anxiety, or gastric upset. Therefore a need exists for a dependable formulation with a maximum of effectiveness, patient acceptance, and with a minimum of side effects and number of daily doses. Such is needed for the management of acute episodes in atopic individuals and as additional help in the care of chronic, poorly-controlled patients.

For this need, the adrenal corticosteroids have long been called upon—and with obvious success. Soon after the discovery of cortisone in 1949 and hydrocortisone in 1951, the allergy-controlling properties of this group of compounds were established. Synthesis of the group of steroids with an unsaturated bond at the position 1-2 followed in 1955, producing the companion drugs prednisone and prednisolone. These had increased potency but effected no appreciably decrease in incidence of serious side effects.[13]



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Then in 1957 a methyl group was added at position 6, giving 6-methyl, delta-1-hydrocortisone (methylprednisolone, Medrol®) which compound is somewhat more potent still, but also a good deal less likely to yield side effects of a serious nature than were the previous compounds.[11]

Concurrently with the search for more potent and less toxic compounds, the search has proceeded for formulations permitting smaller doses (with expectation of decreased side effects) to procure better and more convenient relief of symptoms by the smoothing out of the "peak and valley" absorption pattern of ordinary tablets. Such a preparation of methylprednisolone has been evaluated in a group of allergic pediatric patients. This formulation consists of a capsule containing a number of small pills of methylprednisolone coated with a pH-sensitive, inert material which allows release of more and more of the contained medication as the acidity decreases (pH increases). This physiochemical device permits an initial release of medication to start absorption of a relief-giving portion, and then a steady, smooth continued release of further medication as the tiny pillules traverse the length of the small bowel. This accomplishes early, as well as prolonged, relief of symptoms with administration of a single dose—a decidedly useful technique in school children as well as with those who resist the administration of a medication.

Procedure

Twenty-eight patients who had previously been untreated for their atopic disease or who had developed symptoms while under hyposensitization therapy were treated with capsules of Medrol Medules. Of these, the seven younger children were given capsules containing 2 mg. of methylprednisolone in each capsule twice a day and twenty-one of the older children were given capsules containing 4 mg. of methylprednisolone twice a day. Those patients who had been previously

Medrol Medules is a registered trademark of The Upjohn Company who furnished the materials for this study.

TABLE I.

No.	Patient	Age	Diagnosis	Dose	Side Effects	Duration of Effect	Results	Comparison and Comment
1.	J.M.	4	Hay fever ? Asthma	2 mg. BID	None	12 hr.	Excellent	Better, longer lasting than tripelennamine
2.	L.Y.	4	Extrensic asthma	4 mg. BID	None	12-18 hr.	Excellent	Better than theophylline-ephedrine-phenobarbita and chlorprophenpyridamine and phenylepherine
3.	J.B.	7	Food allergy Sick headache	4 mg.	None	?	Good	Relieved headache better than aspirin
4.	D.L.	5	Allergic rhinitis	4 mg. BID	None	18-24 hr.	Excellent	No previous treatment
5.	R.H.	13	Poison ivy and allergic rhinitis	4 mg. BID	None	12 hr.	Excellent	Skin cleared rapidly Nose normal in 2 days
6.	D.P.	6	Urticaria	2 mg. BID	None	12-18 hr.	Excellent	Rapid control—no break-through on a 12 hr. regimen
7.	D.N.	4	Hay fever, asthma	2 mg. BID	None	8-12 hr.	Good	Better than chlorprophenpyridamine
8.	S.D.	11	Urticaria	4 mg. BID	None	6-8 hr.	Good	Used tripelennamine with it to relieve residual itching
9.	J.M.	9	Hay fever, asthma	4 mg. BID	None	12-18 hr.	Excellent	Quickly helped, rapid onset, lasted all day. Better than combined phenylpropanolamine, phenera-mine and pyrilamine
10.	S.D.	6	Papular urticaria Allergic rhinitis	4 mg. BID	None	12 hr.	Excellent	Rapid lasting relief of rhinitis, accelerated clearing of papular urticaria
11.	A.B.	4	Hay fever, asthma	2 mg. BID	None	10-12 hr.	Excellent	Better than sustained action chlorprophenpyrida-mine
12.	L.M.	4	Asthma, hay fever	2 mg. BID	None	12-14 hr.	Excellent	Effect lasted all day
13.	K.D.	15	Hay fever, asthma	4 mg. BID	None	?	Fair	Mother uncooperative and medules given irregu-larly
14.	G.B.	8	Hay fever, asthma	4 mg. BID	None	?	Fair to poor	Mother absent—observation not reliable. Hydro-cortisone gave best relief in past
15.	R.D.	13	Hay fever, asthma	4 mg. BID	None	12-18 hr.	Good	Worked well—lasted all day
16.	G.S.	8	Hay fever, asthma	2 mg. BID	Tired		Poor (low dosage)	Better results with combined theophylline-ephe-drine-phenobarbital and combined triamcinalone and chlorpheneramine
17.	T.R.	5	Facial contact dermatitis due to pollen	2 mg. BID	None	12 hr.	Excellent	Rapid relief of itching. Fast disappearance of rash and redness
18.	T.D.	4	Extrensic asthma	4 mg. BID	None	12 hr.	Excellent	Very good relief of wheezing and cough with 1 cap-sule BID
19.	J.E.	9	Extrensic asthma	4 mg. BID	Stuffy nose 2 times			On two trials caused stuffy nose; but also had same symptoms irregularly without this medication
20.	R.R.	7	Hay fever	4 mg. BID	None	12 hr.	Excellent	Steady improvement with maximum relief 3rd day
21.	W.W.	13	Contact derma-titis, severe poison ivy	4 mg. BID 8 mg. BID	None	4 mg: none 8 mg: 12 hr.	None Excellent	No evident benefit on 4 mg. Excellent relief on 8 mg.
22.	L.E.	6	Extrensic asthma	4 mg. BID	None	2 mg: 7½ hr. 4 mg: 12 hr.	Excellent	4 mg. BID equals 10 mg. hydrocortisone 4 x a day
23.	T.L.	7	Perennial allergic rhinitis	4 mg. BID	None	12 hr.	Good	Better than 12 mg. sustained action chlorprophen-pyrindamine
24.	D.L.	11	Allergic rhinitis	4 mg. BID	None	12 hr.	Excellent	Better than 12 mg. sustained action chlorprophen-pyridamine or 25 mg. promethazine
25.	C.A.	10	Hay fever, asthma	4 mg. BID	None	12 hr.	Excellent	Relief began 60-90 minutes
26.	J.B.	14	Hay fever	4 mg. BID	None (drowsy, mild)	12 hr.	Excellent	One capsule gave relief all day
27.	H.L.	6	Hay fever, asthma	4 mg. BID	None	12 hr.	Excellent	One capsule relieved all day
28.	J.D.	15	Hay fever	4 mg. BID	None	12 hr.	Good	Stopped sneezing. Relieved coryza

treated symptomatically were asked to give the Medules three days and then give their previous medication for three days, on and off, to try to establish a relationship of effectiveness between the two regimens. All of the patients lived in the same community and were subjected to the same air borne inhalant allergens and therefore all were in a comparable situation regarding exposure to the offending agents. A two-weeks' supply of medication was furnished each patient; each returned for examination and evaluation of treatment and was then furnished a further supply if it was deemed necessary. These observations were carried out during the time of tree and grass pollination of the 1960 season. The parents were instructed to give the child one capsule immediately upon arising in the morning and another upon retiring at night, if necessary, except in one group of patients who were suspected of having inhalant allergy related to substances within the bedroom. Parents of these patients were to give the child one capsule at bedtime only in order to evaluate the relief of symptoms over night.

Results

In general, very satisfactory results were obtained in all of the patients. Excellent results were recorded in twenty-six, good results in eight, fair results in two and poor results in two. The patient in whom the poor results were recorded for both asthma and hay fever was one in whom the smaller dose, 2 mg. twice daily, was used in an eight-year-old child. In retrospect, this appears to have been a completely inadequate dose and in all probability the larger dose would have produced effective relief of symptoms. In one instance the mother was absent during the whole two weeks of the observation and so could not be an adequate historian and reporter. However, this case is reported as one with poor results. In the final case of poor results the child developed a stuffy nose on each of two occasions when the medication was tried and therefore the mother did not pursue administration. It should be added, however, that this child developes a stuffy nose at irregular intervals unrelated to the administration of medicine

and while the mother recognized this factor in her past history it still must be recorded as an intolerance to the drug and a failure of the medication to produce the desired result.

muscle weakness or depression. One other child, a fourteen-year-old patient with hay fever, complained of mild transient drowsiness but this disappeared with continued administration of the drug.

TABLE II.

Diagnosis	No. of Patients	Results			
		Excellent	Good	Fair	Poor
Contact dermatitis Poison ivy 2 Pollen 1	3	3			
Allergic rhinitis (and hay fever)	19	13	3	1	1*
Asthma	13	9	2	1	1*
Urticaria (giant hives)	2	1	1		
Papular urticaria	1		1		
Sick headaches (food allergy)	1		1		
Totals	39**	26	8	2	2*

*Poor results in one case of asthma and hay fever due to too low dosage, 2 mg. BID in 8-year-old child.

**More than the 26 patients because several had more than one atopic symptom.

The diagnoses, results and doses are given in Table I—relating the results and pertinent comments volunteered from the parents. In Table II the results are correlated to the symptoms being treated.

Two cases of urticaria probably due to sensitivity to penicillin were treated, both quite satisfactorily, with the control of the eruption for twelve hours or more after the administration of each capsule. One case of papular urticaria was treated and it was noted that this disorder which usually runs a course of three to four weeks was shortened to one week with the treatment as described. One child was given Medrol Medules as a therapeutic trial to see if atopic processes could be responsible for his recurrent sick headaches. The mother reported a very good response to medication with a relief of headaches without their progressing to vomiting as they usually did. Three cases of contact dermatitis were included in the group, one probably due to pollen, which, as would be expected, responded dramatically. Two cases of poison ivy dermatitis were treated. One failed to respond to 4 mg. of Medrol Medules twice daily given for two days but did respond very well to 8 mg. of Medrol Medules given twice daily. The second case of poison ivy dermatitis responded quickly to 4 mg. twice daily.

Side Effects

In two patients side effects were reported by the parents. These consisted of the patient named above who developed a stuffy nose on two occasions when administered methylprednisolone and one other, the child eight years old being treated for hay fever and asthma with 2 mg. twice daily, who complained of being tired. There was no concomitant complaint of

Comments

Methylprednisolone has been used for the management of many series of allergic patients.[4,5,7] It has been favorably compared with hydrocortisone,[5,13] triamcinalone,[3,6] prednisolone and prednisone,[7,9,11,12] and dexamethasone.[6] In all of these instances, methylprednisolone has been found to be superior in one or both of the qualities of potency or reduced side effects. Goldman[8] has observed that the side effects of the corticosteroids, in general, are less marked in children. Brown and Seidman[9] have also observed a complete absence of incidence of gastric ulcer in their 129 patients treated with methylprednisolone.

It would seem then that children are less prone to have deterring side effects to methylprednisolone both in relation to their immaturity and because of methylprednisolone's decreased incidence of side effects and better tolerance. In this series of twenty-eight patients, there were no serious side effects and minor complaints were reported in only two patients. It is likely that the very low incidence of adverse side effects in this series was due, in part, to the fact that these children were treated on an acute basis only for periods of two to four weeks. In this time one would not expect such side effects to occur. In addition, the reduced daily dosage would tend to reduce the all-over incidence of side effects.

The specific formulation of methylprednisolone in small pills compounded with the pH-sensitive coating such as was clinically evaluated for this study (Medrol Medules) would seem to be a nearly ideal formulation for the management of acute attacks of atopic disease in children. In addition, it is a valuable addition to the management of those under long-term allergic

treatment who need additional therapy for re-appearance of their symptoms or for suppression of their disease process on a long-term basis. It proved very useful inasmuch as the capsules could be opened and mixed with a favorite food of a smaller child and administered only once or twice daily. It was accepted universally well. There was in no instance a refusal to take the medication.

In several cases of severe and prolonged asthma in in which the child had become exhausted and overstimulated with standard bronchodilators, it was possible to achieve very good control using Medrol Medules—with a complete absence of side effects. It was a very gratifying situation for the child to be able to relax, breathe and sleep, and to again develop an appetite and start gaining weight. Several children with severe acute hay-fever attacks who were intolerant of the usual antihistamines because of drowsiness or dizziness were adequately and conveniently managed with Medrol Medules. They experienced no such side effects and were able to continue effective school attendance—given a capsule before school and bedtime.

In some instances it would not be wise to use this preparation of Medrol Medules. These would, of course, include cases of known or suspected tuberculosis, concomitant chickenpox or other acute viral exanthems. While this particular study did not attempt to evaluate long-term methylprednisolone treatment in this dosage form in children, corticosteroids should not be used in large doses over long periods of time without very substantial indications relating to a life-threatening process because of, among other things, the effect of retardation on linear growth. Van Metre and Pinkerton[10] showed that when the total daily dose of methylprednisolone was kept under 5 mg. per square meter of body surface area per day there was no retardation in linear growth and, furthermore, when there was a retardation by the use of larger doses over short periods of time, a reduction of dose or discontinuation of the medication would allow linear growth to be regained to normalcy. This is again a definite advantage for Medrol Medules inasmuch as much smaller doses seem able to produce full clinical relief and therefore maintain a symptom-free status on a dose under 5 mg. per square meter per day.

Another interesting indication for the use of Medrol Medules is presented by its capacity for long duration of potent activity. This is particularly useful in the diagnostic testing of children with allergic problems occurring during sleep. This especially applies to those suspected of being allergic to bedroom allergens (cottonseed linters and house dust) and to pollens (which tend to reach their maximum air concentration shortly after dawn). In this situation the patient can be given a Medrol Medule at bedtime with confidence that it will still be acting in full therapeutic capacity hours later at the termination of normal sleep, thereby allowing for observation of antiallergic effect in the early morning before another dose could be taken. Since Medrol has no direct vasoconstrictor action, any reduction of those symptoms which normally occur from drawn until the time of awakening could be accurately assigned to the antiallergic action of Medrol, and thereby a presumptive diagnosis of allergic rhinitis could be entertained.

The superior effectiveness of Medrol Medules is shown not only in potency but in tolerance. In pediatric patients, the ease of administration and convenience of the therapeutic regimen greatly increase the likelihood of effective symptomatic relief without patients' rejection of the medication or drug intolerance.

Conclusions

In this study, twenty-eight cases were treated with sustained release capsules of methylprednisolone (Medrol Medules). In one instance a patient developed a questionable but minor side effect (stuffy nose) and the mother stopped treatment because of this. In another there was no real observation of the patient and so an adequate report was not available. In a third patient an inadequate dose was prescribed with no discernible clinical benefits. Of the remaining twenty-five patients all had good to excellent results. No serious side effects were noted.

Patient acceptance was universally good and no child expressed any reluctance to take the Medules of methylprednisolone. Parents liked the once or twice-a-day regimen and it was a highly successful way of managing symptoms in those atopic children who were in school. In many patients the effect of a single dose lasted twelve hours or longer. This was a very convenient schedule for day-long and all-night control of symptoms. This prolonged action formulation of methylprednisolone (Medrol Medules) is a real contribution to the management of acute atopic disease on a short-term basis.

Those with the more severe symptoms of allergic rhinitis, asthma and contact dermatitis are the cases wherein Medrol is likely to do its most dramatic work. As with all corticosteroid therapy, prolonged administration should be undertaken only after consideration

of all of the pitfalls of such therapy. However, this formulation of sustained-release Medrol Medules makes it possible to obtain clinical relief in many instances with a reduction of the total dosage and therefore less likelihood of the major toxic effects of prolonged corticosteroid treatment.

Summary

Twenty-eight cases of atopic disease were treated with Medrol Medules. Three cases were removed from the study for reasons of parental non-cooperation, inadequate dose and drug intolerance. All of the rest had good to excellent clinical response with no side effects sufficient to cause withdrawal of the drug. The dosage form proved to be very useful especially because of the great convenience of once or twice-daily dosage. Total dose of the steroid was kept low by the smooth, steady release of medication from the pillules. This prolonged action formulation of methylprednisolone (Medrol Medules) represents a valuable addition to our armamentarium especially in the management of acute severe atopic episodes such as allergic rhinitis, asthma, contact dermatitis, and urticaria.

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Two-Way Radio Broadcast

An evaluation of a series of two-way radio broadcasts has shown an 8 per cent increase in knowledge among American-educated physicians who participated in this experimental form of continuation education.

Fred MacD. Richardson, M.D., coordinator of the Pennsylvania Hospital Continuation Education Program, and three fellow authors, in a paper before the annual session of the Medical Society of Delaware, said thirty weekly broadcasts were initiated last October, produced by the PHCEP in conjunction with the Delaware Medical Society and supported by Smith, Kline & French Laboratories. The broadcasts, carried over WHYY-FM, actually linked physicians in the studio of the radio station with doctors in five Delaware hospitals. By means of remote communications equipment, doctors in each of the hospitals were able to ask questions of and receive immediate answers from the discussion leader located at the network headquarters in Philadelphia.

A Bacteriologic Survey of Non-Hospital Personnel For Nasal Carriers of Staphylococcus Aureus

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THE IMPORTANCE of the community aspects of staphylococcal disease has been emphasized by Wentworth and his co-workers[1] and by Gould and Cruikshank.[2] Many patients with infection due to *Staphylococcus aureus* seen in the office of the private practitioner can be traced directly to a hospital.[3] Also, there is an equally significant number of cases seen as office patients that have no apparent contact with a hospital.[4] Both of these situations suggest that carriers of *S. aureus* are present in the community and that they are potential sources of staphylococcal disease. This report summarizes the results of our study of a group of ninety-one persons whose employment was non-hospital in nature and who were, therefore, considered not to be exposed to the relatively high concentration of staphylococci known to exist in most hospitals today.[5] The finding of a significant number of permanent carriers among this relatively small group reaffirms the importance of nasal colonization, carriage, and infection due to *S. aureus* in the community, as well as in the hospital.

Materials and Methods

The ninety-one individuals included in this survey were volunteers from the staff of 299 employees of the Division of Laboratories of the Michigan Department of Health, Lansing, Michigan. Represented in the group of volunteers were office workers, laboratory technicians, farm hands, animal caretakers, chemists, serologists, and bacteriologists. It is to be emphasized that only two persons in the study group, one of whom was a carrier, worked in a laboratory where staphylococci were handled routinely.

Each of the ninety-one volunteers had a nasal swab taken on Wednesday of each week for six consecutive weeks. The swabs were taken by the same person, from the same nostril of each volunteer, on each occasion that the volunteer was present. Prior to swabbing the nose, the volunteer was asked to blow his nose into a clean, dry paper tissue. This was done in an attempt to move organisms lodged in the nasopharynx forward into the nasal cavities where they could be reached by a nasal swab without requiring the use of a nasopharyngeal swab. The swabs—sterile, dry cotton on a flexible applicator—were introduced into the nasal cavity until they were in contact with the mucosal surface of the middle turbinate, and were then rotated gently so as to moisten the cotton with nasal secretions. Each swab was immediately used to inoculate a petri dish containing sheep blood veal infusion agar which was incubated overnight at 37° C.

After the permanent carriers in the group were identified, nasal swabs were collected from these people three times a week for four additional months so as to extend our period of observation.

Typical single colonies of *S. aureus* from each specimen were picked and inoculated into 1 per cent mannitol broth, a tube of hemolysis-coagulase medium,[6] and onto a sheep blood agar plate for antibiotic sensitivity testing. Cultures of staphylococci that were coagulase-positive in rabbit plasma were submitted for testing with standard staphylococcal bacteriophages using twenty-four preparations furnished by Blair.* Duplicate stock cultures of every positive isolation were maintained on veal infusion agar slants at 4° C for reference purposes.

The general state of health of each volunteer was

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*The phages used in the study, furnished by Dr. John Blair, Hospital for Joint Diseases, New York City, were grouped as follows:

Group I—29, 52, 52A, 79, 80

Group II—3A, 3B, 3C, 55

Group III—6, 7, 42B, 42E, 47, 47C, 53, 54, 70, 73, 75, 77, Va4

Group IV—42D

Miscellaneous—81

observed during the survey. Nine persons proven to be carriers were subjected to clinical and radiologic examinations of the ears, nose, throat and accessory nasal sinuses.**

TABLE I. BASIC DATA COLLECTED DURING THE SIX-WEEK SURVEY
(464 Nasal Swab Specimens)

	No.	Per Cent
Number of volunteers with positive isolation:		
Number of permanent carriers	17	54.8
Number of transient carriers	10	32.3
Number of occasional carriers	4	12.9
Total	31	100.00
Number of volunteers with negative isolation	60	
Total number of volunteers	91	

Results

There were 464 nasal swab specimens collected from ninety-one volunteers during the six-week period of this study (Table I). The following definitions were used in interpreting results:

Positive Isolation.—Any culture which was hemolytic on sheep and rabbit blood, was coagulase-positive in rabbit plasma, fermented mannitol in eighteen hours and otherwise resembled *S. aureus.*

Permanent Carrier.—Any individual from whom a nasal swab specimen positive for *S. aureus* was obtained at each examination or who had only one negative specimen among a series of positive specimens.

Transient Carrier.—An individual who had a series of negative nasal swab specimens after two or more positive specimens or who had two or more positive specimens after a series of negative specimens.

Occasional Carrier.—An individual who had only one positive specimen during the survey.

No effort was made to select healthy volunteers. None of the study group were hospital patients immediately before or during the survey. Experience showed, as the study progressed, that several individuals had upper respiratory tract disease including sinusitis and rhinitis, some persons had the common forms of pyoderma, and one farm worker had a mixed bacterial and fungus infection of his respiratory system.

The state of carrying *S. aureus* in the nose was identified in thirty-one volunteers or 34 per cent of the study group (Table I). Seventeen of these persons were designated as permanent carriers, eight of whom had *S. aureus* in their nose on each of six occasions that a specimen was collected. The other nine permanent carriers were each examined four or five times and also yielded *S. aureus* from every specimen. Thus, 54.8 per cent of all carriers of *S. aureus* identified in this survey were shown to be permanent carriers. In terms of the entire study group, 18.7 per cent were identified as permanent carriers. There were ten transient carriers and four occasional carriers discovered among the thirty-one individuals with positive isolations of *S. aureus.* Nasal swab specimens from sixty volunteers failed to produce *S. aureus* at any time during the survey (Table I).

TABLE II. INDIVIDUALS FOUND TO CARRY MORE THAN ONE STRAIN OF S. AUREUS

Volunteer	Carrier Status	Primary Culture								Secondary Culture							
		Phage Pattern	Antibiotic Pattern*						Times Isolated	Phage Pattern	Antibiotic Pattern*						Times Isolated
			E	T	Te	C	P	St			E	T	Te	C	P	St	
6	Permanent	Untypable	S	S	S	S	S	S	4	42B	S	S	S	S	S	S	1
17	Permanent	52	S	S	S	S	S	S	4	Untypable	S	S	S	S	S	S	2
26	Transient	Va4/7/47C/53/75/77	S	S	S	S	R	S	2	Untypable	S	S	S	S	R	S	1
39	Permanent	Untypable	S	S	S	S	R	S	5	3A/3B/3C	S	S	S	S	R	S	1
86	Transient	Untypable	S	S	S	S	S	S	1	29/47C/52	S	S	S	S	S	S	1
88	Transient	Untypable	S	S	S	S	R	S	2	Va4/53/77	S	S	S	S	R	S	1

* E=Erythromycin, T=Oxytetracycline, Te=Tetracycline, C=Chloramphenicol, P=Penicillin, St=Streptomycin, S=Sensitive, R=Resistant

Clinical and radiologic examinations revealed that seven of nine permanent carriers examined had chronic inflammatory disease of their upper respiratory tract and three of these persons also had structural abnormalities producing obstruction in the nasal passages.

Each isolate of *S. aureus* was tested for sensitivity against six antibiotics by the disk-plate method. Because this study allowed for repeated examination of each volunteer, we were able to collect information on the stability of phage patterns identified from the various

**We are indebted to Hyman D. Shapiro, M.D., 201 W. Hillsdale St., Lansing, Michigan, for the clinical evaluations and James C. Neering, M.D., Chief, Department of Radiology, St. Lawrence Hospital, Lansing, Michigan, for the radiologic studies.

carriers. Table II gives the charactertistics of cultures, designated as primary and secondary, which were isolated from six permanent carriers.

Discussion

This study was organized for the purpose of investigating the carrier state of *S. aureus* as well as the cultures of *S. aureus* carried in the nasal passages of individuals from the general or non-hospital population. The majority of reports of carrier surveys deal with population groups which were, for the most part, hospital oriented. Carriers selected from hospital populations such as medical students, nurses, blood donors, and so forth are exposed to a greater concentration of pathogenic, antibiotic-resistant staphylococci and in a more continuous manner than are persons in the general population.[5]

Several volunteers, identified as permanent carriers, were found to have chronic inflammatory disease of the upper respiratory tract. The majority of this group also had some active inflammatory disease during the period of study. In a second phase of this investigation we obtained clinical and radiologic confirmation of chronic inflammatory disease of the upper respiratory tract in seven of nine permanent carriers selected for additional observation.

The preponderance of carrier strains of *S. aureus* were sensitive to five of the six antibiotics used. None of the cultures tested were resistant to either erythromycin or chloramphenicol, while 38.8 per cent were resistant to penicillin. There was no change in the sensitivity pattern of isolates of *S. aureus* from any carrier during this investigation.

It would appear that a significant portion of the population is resistant to colonization or invasion by *S. aureus*. In this study, 66 per cent of the group did not yield coagulase-positive staphylococci on any occasion. This observation has been made previously.[7] It is not known whether this ability to resist colonization and infection is due to humoral immunity or to a local situation in the nose. We have determined that some permanent carriers have a significant agglutinating antibody titer against their homologous strain while other permanent carriers have no detectable agglutinating antibodies for their homologous strain. It would appear, therefore, that some variations observed among carriers are attributable to the carrier himself.[8]

This conclusion is further supported by our observation that seven of nine permanent carriers had chronic inflammatory disease of their upper respiratory system and that several of the carriers also had structural abnormalities. We have no knowledge of the frequency of inflammatory or obstructive disease in the upper respiratory systems of the non-carriers in this study. However, we were impressed with the association between obstructive disease, either structural or inflammatory, and the nasal carrier state of *S. aureus* in persons shown to be permanent carriers.

Repeated examination of proven carriers also allowed us to collect data on the stability of phage patterns as well as the stability of the carrier state. Twenty-five of the carriers were shown to have only one phage pattern identified in their cultures. There were six carriers, however, who produced cultures having two phage patterns (Table II). This would suggest variation in the cultures themselves. The alternate cultures in each carrier having two phage patterns had identical antibiotic sensitivity patterns.

One carrier produced cultures having the designation 80/81. This middle-aged lady was a permanent carrier, but did not have detectable staphylococcal disease and had not been a hospital patient for at least five years prior to this study. The infrenquency of isolation of strains of *S. aureus* 80/81 in non-epidemic situations has been previously reported.[9] We are unable to explain why cultures with this particular phage pattern are so strongly pathogenic and at the same time so lacking in ability to become permanently established in a carrier state in the nose.

In addition to being a potential hazard to other members of the community it would appear, from the report of Williams and his associates,[10] that a carrier of *S. aureus* is also a considerable hazard to himself in terms of possible self-infection. This would suggest that it may be of value to know the carrier state of a patient prior to his admission to a hospital for surgery.

Summary

1. Thirty-one persons (34 per cent of a study group of ninety-one volunteers) were found to harbor *S. aureus* in their nasal passages on one or more occasions during a six-week survey. Seventeen persons were designated as permanent nasal carriers, ten persons were transient carriers, while four had *S. aureus* in specimens only once. Sixty persons, identified as non-carriers, did not have *S. aureus* in their noses on any occasion during the survey.

2. Environment, the strain of *S. aureus*, and the carrier himself each have a bearing on the establishment and maintenance of the nasal carrier state. Indi-

viduals who are permanent carriers frequently have infection and structural abnormalities of their upper respiratory systems.

3. Six nasal carriers were shown on separate occasions to carry two cultures having identical antibiotic sensitivity patterns but different phage patterns.

4. The average hospital visitor, as represented by our volunteers, constitutes a potential hazard to a susceptible hospital patient because of the carrier state of *S. aureus*. However, it would appear that the visitor from the community cannot be considered a common source of the hospital or epidemic strain of *S. aureus*, 80/81.

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Influenza Immunization

Two outbreaks of influenza swept the United States in the fall of 1957 and the winter of 1958, resulting in 60,000 more deaths than would be expected under normal conditions. There were, in addition, more than 26,000 excess deaths during the first three months of 1960 which also were considered to be the result of influenza.

These departures from the usually predictable norms prompted the Surgeon General's Advisory Committee on Influenza Research to analyze the cause and to seek measures to prevent such an occurrence in the future.

The committee found that a new antigenic variant, the Asian strain, because of its widespread introduction and the general lack of resistance to it, was the direct cause of the excess number of deaths, not only in the total population but most markedly among the chronically ill, the aged, and pregnant women. As a result of these findings, the Public Health Service is urging a continuing program to protect these high-risk groups in order to prevent a recurrence of this excess mortality.

The high-risk groups who contribute most to the excess deaths and who the Public Health Service believes should be routinely immunized each year are:

1. Persons of all ages who suffer from chronic debilitating disease, in particular: (*a*) rheumatic heart disease, especially mitral stenosis; (*b*) other cardiovascular diseases, such as arteriosclerotic heart disease or hypertension—especially patients with evidence of frank or incipient insufficiency; (*c*) chronic bronchopulmonary disease, for example, chronic asthma, chronic bronchitis, bronchiectasis, pulmonary fibrosis, pulmonary emphysema, or pulmonary tuberculosis; (*d*) diabetes mellitus; (*e*) Addison's disease.
2. Pregnant women.
3. All persons sixty-five years or older.

The adult dosage recommended by the advisory committee for initial immunization is 1.0 cc. (500 cca units) of polyvalent vaccine, administered subcutaneously on two occasions separated by two or more months. Preferably, the first dose would be given no later than September 1 and the second no later than November 1.

The Magic Pill

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THE ill-conceived notion that modern man has some God-given right to feel well twenty-four hours a day, has acquired almost universal acceptance in American culture. The health-conscious American public spends more money per capita on medicines, doctors, and hospitals, than any other people in the western world. Our popular magazines, including those whose acknowledged prime purpose is dispensing news, are currently disseminating information about the practice of medicine in all of its branches and publicizing particularly the latest incomplete researches into new cures and new methods for putting man at his physical and mental ease.

The population's voracious appetite for these nostrums has sent drug company stocks spiraling upward with seemingly no limit. To the long list of patent medicines which have always sold in large quantities, there is now being added an almost equal number of oral pacifiers, which are produced by "ethical drug houses," and therefore not advertised except in professional journals. These medications are classified officially as sedatives, hypnotics, and tranquilizers. The ever-increasing demand for this group of drugs is a manifestation of what might be called the search for "The Magic Pill."

The goal of this search is to attain freedom from anxiety, a concept which is entirely unrealistic, impractical, and actually harmful to man's progress and to the fruition of his ultimate social, economic, and psychologic ideals. Doubts as to the extensive use of these products can be readily dispelled by perusal of current figures as to the numbers of prescriptions written by physicians for drugs such as anelgesics, heart medications, skin preparations, and anti-cough compounds. The value of these various anxiety-relieving preparations is now the subject of a rather heated controversy within the medical profession, particularly within the psychiatric specialty. Psychiatrists are split over the use of tranquilizers and many robust arguments occur whenever groups of these specialists get together. Some psychiatrists have leaped on the chemical bandwagon and are hailing this group of drugs as the answer to all the emotional ills of man. Others are wisely cautioning against their over-use and calling attention to the inherent dangers of indiscriminate and unscientific utilization of potent biochemical forces to alter thinking, feeling, and behavior—when it has not yet been proved that symptoms are the result of disruption in the biochemistry of the body. It is as easy to give a pill as it is to take one, and both doctor and patient can readily be servants of their own inner needs in prescribing and using this particular group of drugs. These needs will be mentioned again later, but, for the present, suffice it to say—there must be basic satisfactions on the part of both the physician and his patient in the use of "The Magic Pill."

A new term has been introduced into medical literature to describe the effects of these tranquilizing drugs and to classify them separately from some of the older sedatives. This term is "ataractic." The idea that is communicated by the term "ataractic," is that of tranquility, serenity, and peace of mind. It would certainly be uncharitable to invoke the simile of the contented cow in the definition of this new medical term. However, one cannot avoid this thought passing over one's mental horizon, when considering what these ataractic drugs are supposed to do. Perhaps it would be more accurate to compare the tranquilized state with that of the satiated infant, who, through nursing, has relieved his physiologic and psychologic tensions caused by the hunger instinct.

Since the time of the witch doctors, it has been recognized that carefully concocted oral medicines, combined with strong suggestions, could produce remarkable results. When these concoctions are even more scientifically prepared and actually have certain distinct effects upon areas in the central nervous system, the alliance of suggestion and chemistry is even more effective. The measurement of the psychologic span between the cry of the hungry infant and the adult protestations of the unhappy patient suggests less distance than is present in calendar years. The appeasement of a certain type of hunger may well be a factor in the dramatic relief so often desired in the request for and the distribution of medicines.

It is quite difficult to avoid the analogy between the intensity of the American search for tranquility and primitive man's search for food. The ritualistic use of food and drink in both pagan and modern

religious rites, hints strongly at the magic meaning of today's "pill." It is also interesting to note that both alcoholism and narcotic addiction have increased seriously in the United States along with the dramatic increase in the use of tranquilizing drugs. This may also be an indication of the many-faceted character of the search for serenity.

Let us return to the problem of the inter-related needs of doctor and patient in the use of this particular group of medicines. Is there a similar need to which both doctor and patient respond in the request for and the granting of prescriptions for tranquilizers? It seems quite possible that such a situation exists. The patient who is tense and anxious comes to the physician seeking relief from this unbearable feeling. The physician is expected to perform some act which will cause the disappearance of this unpleasant state of mind and body. The roles of patient and physician are cast quite succinctly. The patient as supplicant, the physician as provider. Perhaps again, one could say, the patient as child, the doctor as parent, who will take away the hurt and restore the normal balance; a sense of equilibrium between one's inner and outer environments.

The maintenance of a successful physician-patient relationship relies almost entirely on the resolution of their mutual expectations. The physician must relieve and the patient must be relieved within a reasonable amount of time and with a reasonable amount of effort. But, the question arises as to whether the expectations of this particular group of patients are in their own best long-term interests. The demands on today's physicians are heavy and their offices are crowded with many people who are suffering from what has wisely been called "the emotional problems of living." Physical appraisal of the patient's difficulties is usually done thoroughly, but there is no time for mental appraisal, so the dispensing of a magic pill is often the solution to both the patients' and physicians' needs.

The advisability of approaching 100 per cent tranquility must be questioned. Human behavior is motivated by complex forces at various levels of mental activity. These forces are not well explained although proponents of one or another "school of thought" will battle vigorously in defense of their special theories. Almost all of these experts will concur that some form of mental and/or physical disequilibrium brings about the feelings, thoughts, and actions that we know of as symptoms. A sense of discomfort which is termed anxiety is one of the most common of these symptoms. Are we justified in always assuming that anxiety in it's broadest sense is pathologic or unhealthy?

When a person feels pain, he is motivated to seek relief. This relief may take the form of a hot bath, an aspirin, a shot of whiskey, or the like. He may, if the pain persists and is severe, consult with his physician. When this same person experiences intense anxiety or "nervousness," he may also resort to similar measures. The point to be emphasized is that he tries to do something about it.

Similarly, if he feels tension, due to worry over some realistic environmental problem, he is pressed to do something toward solving this problem. The discomfort or anxiety acts as a potent force in the building of a positive attitude or plan to resolve his dilemma. Without this feeling of inner dis-equilibrium, there would be very little urge toward problem-solving. In the simplest of societies, the inner tension caused by hunger forced man to seek food. In the complex civilization in which we live today, tensions and anxieties may be provoked by a plethora of circumstances. Any one or combination of these circumstances calls for action toward resolution. Needless to say, a state of calmness, tranquility, or complete serenity will not contribute toward this action potential.

This is not an attempt to promote the idea that intense anxiety leads to creativity and problem-solving. Anxiety in its extreme forms is a neurosis, an emotional illness which requires the skillfull treatment of a physician trained in the practice of psychiatry. Perhaps the use of the term anxiety is in itself a misnomer; but, we will relieve it of its technical definition and utilize its broadest implications for purposes of this discussion. Mild to moderate worry, uneasiness, discomfort, and anxiety, are essential to human growth and progress. They are essential to problem-solving, to creativity, and to the accomplishment of the myriad individual and group goals that cross the stage of human drama. The right to worry might well be considered a basic freedom, without which man would be pulseless, purposeless, and non-directional. Man's strength must come from within. No pill, no chemical, no magic incantation can make him what he is not. Frustration stimulates growth. Emotional growth or maturation never ceases, but continues endlessly throughout the life span of each human being. Tranquilization induces regression and makes infants of us all. It behooves us, then, to take a second look at ourselves and recognize the inherent dangers of "The Magic Pill."

The Economic Cost of Mental Illness In Michigan

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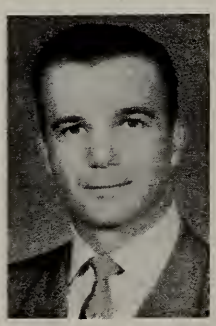
IN THIS DAY of increasing public costs for programs generally subsumed under the rubric of welfare there has been an intensification of interest in the actual price which is paid for services to the people. Estimates of cost are put to various uses including comparison of programs of like designation throughout the states and comparisons of different types of welfare services within a state. These comparisons are probably undertaken for two basic reasons. First, there is the motivation to attempt to measure the services in question which have highly qualitative values in themselves not readily reduced to objective facts. In the welfare areas there is much of the qualitative, perhaps more than in other types of public services where goals can be more explicitly stated and the degree of success in achieving these goals is highly visible. As an illustration it is doubtless easier to have a public evaluation of the effectiveness of a state park program than that of a system of mental hospitals or of the competence of a surgeon than of a psychiatrist.*

Second, is the motivation based on economic valuation itself? This might be labeled determination of economic efficiency of a given program and has to do with the use of that money which is provided for service and the variability in cost of services presumed to be equivalent. The latter presumption, the *ceteris paribus* clause, is never met, of course, and therein lies the frustration of those desiring to ascertain a measure and those to whom the measurements made on economic bases are ultimately referred for explanation. The search for measures of economic efficiency which may have significant import for program planning purposes falls into the area of cost accounting which provides comparisons of cost of various parts of the service within a given program. Most accounting systems in the public welfare area have not reached the necessary level of adequacy to permit such analyses.

Estimates of cost may be used for determination of the magnitude of a public or social problem rather than for comparison purposes. It is that type of determination to which this report is addressed. It is suggested, then, that determination of the economic cost of a given welfare-type service provides one statement of the significance of the problem for which the service was devised. It is further suggested that use of such data for measurement of effectiveness or efficiency of program or for purposes of inter-program comparison is, at present, of dubious value.

This paper attempts to provide a somewhat more definitive statement of the public costs of mental illness in the State of Michigan for the 1957-1958 fiscal year. The year was selected simply because it was the most recent period for which data could be obtained from the necessary sources which are included in the analysis. The report is considered a factual document providing information. Final comments will attempt to suggest the implications of these facts.

Costs of illness are exceedingly difficult to estimate and mental illness with its less definitive boundaries makes the task even more complex. Perhaps the most common attempts at estimate have been those which take the budget of appropriate agencies, divide it by the number of people served and arrive at a per capita cost. This procedure is notorious for its inadequacy. Another estimate is provided by simply totaling the expenditures of the agency(ies) providing the service and taking this total as the over-all cost of the



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*Here the term public is used in opposition to the concept of subjective privacy. The results are public to the view of those qualified to evaluate them—they are not hidden.

disease. This method underestimates the cost to a considerable degree as will be demonstrated below.

Mushkin and Collings have recently provided a precise statement of the concepts which must be considered in estimating costs of illness and injury and the methodology of this report is heavily indebted to their comments.[1]

These authors point out that there are three types of economic costs which must be taken into account to arrive at reasonable estimates. The first of these is the actual use of economic resources for prevention, diagnosis, treatment, and rehabilitation of persons with the disease in question. These have been labeled *resource use*. In this area are expenditures for health services provided by personnel, complimentary commodities such as drugs, prosthetic appliances and medical supplies, public health programs, medical research, part of the cost of training personnel, and part of the cost of capital expenditures for facilities.

The second type refers to transfer of resources or income arising from mitigation of the burdens of illness and has been labeled *resource transfer*. Resource transfer affects the distribution of resources among families or individuals and as such is not a direct cost but, rather, is concerned with the transfer of income between those who are well and those who are ill or, in effect, to the use of resources for the ill group which removes availability of these funds for the use of the well. It includes payments made directly to the sick and financed directly from taxes or contributions (cash payments) and redistribution of the tax burden through statutory tax provisions designed to assist families in meeting problems arising out of illness (hidden subsidies).

The final type of cost is loss of resources occasioned by illness. This has been called *resource loss*. This is a loss in the quantity of resources available through the loss of human labor because of death, disability, and debility. Estimates of resource loss, which attempt to ascertain the economic gain which would accrue if sickness were eliminated, are based on measures of income either over a lifetime or during a given period. Such estimates make the assumption of full employment and unlimited technical resources which would make gainful employment of all eligible people possible.

It will be noted that there is no provision in the above conceptual schema for non-economic losses such as suffering, personal unhappiness, or social pathology which may result from illness of individuals. This is, then, a purely rational interest in costs.

This paper attempts to apply the above conceptions to the cost of mental illness. Because of limitations on availability of data, the cost has been further specified herein as that which consists of public costs paid through state, tax supported services and by individuals who are treated in state facilities for one fiscal year 1957-1958. (Hereafter referred to as 1958). The results provide a circumscribed estimate in that there is (a) no account of costs for private psychiatric care in any form; (b) federal costs are ignored and county costs, except for reimbursement to the state or for community clinics, are eliminated; (c) reference to resource losses to families who get psychiatric services through other than state programs is omitted.

TABLE I. RESOURCE USE

Public Funds		
Adult Clinics	$ 50,778	
Child Guidance Clinics	659,411	
Central Office	380,576	
Hawthorn Center	984,794	
Ionia State Hospital	2,556,541	
Kalamazoo State Hospita	7,391,792	
Lafayette Clinic	1,585,529	
Newberry State Hospital	3,052,157*	
Pontiac State Hospital	5,598,064	
Traverse City State Hospital	5,230,238	
Ypsilanti State Hospital	6,519,433	
Northville State Hospital	5,415,810	
Family Care Program	893,178	
Hospitalization by Private Contract Hospitals	6,230,379	
Miscellaneous	4,475	
Total		$46,553,155
Other Funds		
Local Clinic Support	$ 634,813	
County Reimbursements	3,312,805*	
Total		$ 3,947,618
Individual Costs		
Clinic Fees	$ 12,900	
Out-Patient Fees	4,723	
Individual Reimbursement	2,984,416*	
Total		$ 3,002,039
Total Resource Use		$53,502,812

These figures exclude all Federal expenditures and expenditures from gift, bequest, and donation funds.

*Deduction of 19 per cent taken on Newberry State Hospital for expense of their Children's Unit.

Resource Use

The total state expenditure for mental illness in 1958 was $46,553,155. The total individual costs were $3,002,039. Other sources of support totaled $3,947,618. The grand total cost or resource use was $53,502,812 during 1958. (Table I).

In this section of the report the State mental health budget serves as one basic measure of cost. Federal monies have been eliminated. Local budgets for child and adult community clinics pose a problem in interpretation, for, to include them violates the decision to measure State costs only, but, to exclude them

makes estimates difficult because the clinics are housed in facilities provided by local communities and secretarial service also comes from that source. In addition, some part of the professional staff is also locally supported and it is not possible to differentiate service on this basis. Yet, part of individual costs to patients are for service supported by local funds.

TABLE II. RESOURCE TRANSFER

Social Security	11,889 Claimants	$1,021,800
Social Welfare	250 Families	375,000
Vocational Rehabilitation	310 Clients	43,225
Individual Contributions (gifts, et cetera)		223,787
Total Cash Payments		$1,663,812
Total Hidden Subsidies (lost sales tax)		891,677
Grand Total Resource Transfer		$2,555,489

There is an overestimate of cost resulting from inclusion of all State support of the central office of the Department without regard for the fact that this office also has administrative responsibility for the State home and training schools for the retarded. It was not possible to estimate what part of that expenditure should be attributed to the services for the retarded but this was not considered an important shortcoming since the services of the central office would exist whether or not the programs for the retarded were part of its responsibility. Child guidance clinics also provide some service for mentally retarded children and these are not accounted for in the over-all evaluation of expenditures.

Costs to individuals for hospitalization or other State-operated psychiatric services are included as the second basic measure of resource use. Hospitalized patients or their families are expected to pay a daily maintenance cost for care which may be either full or partial payment. Families without adequate resources to pay such costs are not so assessed. Adults treated in community clinics are expected to pay fees based upon their income, if they are financially able to do so, and, in a few instances, fees are charged for child guidance clinic service. Income from these sources is stated separately as costs to individuals.

Resource Transfer

The total resource transfer was $2,555,489. Of this total, cash payments made up $1,663,812 and hidden subsidies made up $891,677 (Table II).

This aspect of the economics of mental illness is not a direct cost but a re-allocation of resources away from preferred uses for state and individual funds. Such expenses are measured here by the money from agency budgets which is expended because of mental illness and the money individuals contribute to mental health programs. All of these sources are considered as cash payments which are transfers of resources. Remaining transfers are the hidden subsidies which are the loss in State sales taxes due to hospitalization of adults who thereby do not pay a tax. Cash payments are from the Office of Vocational Rehabilitation, Department of Social Welfare for aid to dependent children and Social Security for mentally ill persons between fifty and sixty-five years of age who are eligible for social security and for child beneficiaries. They also included individual and foundation contributions to mental health agencies. The costs given in Table II are estimates provided by the appropriate office and are subject to some margin of error because of differences in statistical and accounting procedures which make exact amounts difficult to state.

Hidden subsidies are estimated by multiplying the adult resident population in the mental hospitals, family care or short leave by the average per capita sales tax in 1958 as reported by the State Revenue Department. It was assumed that had these patients been in the community they would have made this contribution to the State's revenue. There is something of a conceptual problem here for it might be argued that this was a resource loss rather than a transfer. However, to follow the framework suggested by Mushkin and Collings it is considered here as money made up by other individuals and transferred away from other purposes they might have.

Resource Loss

The best available estimate of resource loss indicates it to be $33,289,950 in 1958. Men would have earned $30,219,750 while women would have earned $3,070,200 (Table III).

This is perhaps the most difficult area of economic cost of mental illness to determine with accuracy since it involves estimating the increases in the quantity of resources which would accrue if hospitalized individuals were in the labor force. Here the estimate is based on the number of persons who are in the mental hospitals during a given year and the median income of employed persons in the United States.

No attempt was made to determine loss of income which might result from debility (loss of work efficiency or lost time) due to mental illness though this may be considerable. It is probable that a large part of the groups of persons who have high turnover in

their working situation with intermittent unemployment are victims of mental disorder.

To arrive at the loss of income directly due to hospitalization, the number of males between fifteen and sixty-four years of age who were resident, family care of short leave patients on June 30, 1958 was multiplied by the median income of employed males in the United States during 1958. To arrive at an estimate for women, the proportion of females in the hospital who would have been employed was considered to be equal to the proportion of women in the general population who are employed in this age group. This proportion was 35 per cent. Thirty-five per cent of the female patients in the fifteen to sixty-five age group was multiplied by the median yearly income of women in the United States in 1958.

It will be noted that it cannot be assumed that all of the patients who were considered as possible labor force candidates were unemployed for a full year because some were admitted during the year and may have worked prior to admission. This problem was handled by taking the total number of male admissions in the proper age groups and multiplying this by one-half of the median income for the year. The total income loss was reduced by this amount. The same procedure was used for females except that only 35 per cent of the total female admissions in the age group were considered in order to remain consistent with the other computational procedures for females.

The estimate for women may be somewhat low since it assumes that the proportion of hospitalized women who would work is the same as for the general population, when in fact, it is quite possible that they represent a population group in which a relatively great proportion of the women are gainfully employed. On the other hand, these patients may be representative of income groups earning less than the median income which thereby would tend to inflate the estimate. In addition, the estimate may be somewhat low because there is no provision for the cost of housework which these women would perform at home and which probably calls for hiring of housekeepers to replace them in many instances. Or, stated another way, the housework must be accomplished and is valued at some level of cost regardless of whether or not there is an actual cash transaction. In this sense most women in the hospital could be counted as losing income. The decision was made to eliminate this part of the resource loss because it appeared impossible to arrive at reliable estimates of the economic costs of housework.

There is a further understatement of cost because no accounting was made for the patients on convalescent leave and therefore technically available for employment. There is no data available on which to base estimates of income loss in this group because there are no data regarding what proportion of the group do, in fact, work all or part of the time.

TABLE III. RESOURCE LOSS

Number Male Patients 15-64 years old, 1958*		8,928	
Median Income of Males, 1958	×$	3,700	
			$33,033,600
Number Males 15-64 Admitted During Year		1,521	
½ Median Income	×$	1,850	
			– 2,813,850
Male Income Loss During Year			$30,219,750
Number Female Patients 15-64 years old, 1958*		7,887	
Per Cent Females in Labor Force, 1958	×	35	
Number Female Patients Losing Income		2,760	
Median Income of Females, 1958	×$	1,200	
			$ 3,312,000
35% Number Females 15-64 Admitted During Year		403	
½ Median Income	×$	600	
			– 241,800
Female Income Loss During Year			$ 3,070,200
Total Resource Loss			$33,289,950

*Includes Resident, Family Care, Leave of Absence and Escape.

There is a possibility that the resource loss is somewhat overestimated because there may be actual substitutions of personnel in the labor force so that there is no actual change in income. For example, a male patient who is hospitalized may be replaced in the labor force by his wife who works because he is not available for family support. In this instance there is no loss in the quantity of resources available except as the wife might produce somewhat less than the male adult. Again, there was no means by which to arrive at an estimate of such changes.

Comment

The three bases of estimate of Michigan's public and individual economic costs of mental illness during 1958 yielded the following data: Resource use was $53,502,812. Resource transfer was $2,555,489. Resource loss was $33,289,950. These three measures, although different in conceptual content, may be totaled to give an over-all statement of the economic cost of mental illness as herein defined. This total cost is $89,348,251 for one year.

The dollar valuation is high, perhaps shocking; yet, it represents only that part of the total cost of mental

illness which is paid for by public funds or by individuals using public services.

Mental illness is expensive but what else does this information suggest? Essentially, the answer is best determined through consideration of possible, rational alternatives which confront those who should, or would, make economic judgments regarding future program planning.**

The three major alternatives are to assume a static program with increasing costs as the state population grows, a reduced program with costs lowered by a number of methods discussed below or by an increasing expense brought about by putting additional funds into present programs which will increase them at a greater rate than the state population growth. If the richer program is to be accepted, the economic problem is one of determining how and where to get the increased funds necessary. If the static program is accepted as most appropriate, the problem is that of finding the additional monies which will be required to maintain the status quo in the face of expanding populations. If reduced cost is accepted as the ultimate choice, there are a number of possible alternatives.

1. *Economy in Services.*—It is assumed that humane care is a minimum service and that economy measures would not be considered appropriate which threatened this care. However, economy in services might be effected through reducing the expenditures for certain parts of the total program. Training of personnel provides an example. This does not eliminate the cost but would transfer it from the state system to some other resource. It could lead to a reduction in the numbers of personnel trained in the appropriate specialities since there is competition for recruits in the various occupations in the society at large and those occupations providing more extensive facilities will be in an advantageous position. Other economy measures might consist of cutting service to patients to the level of maintenance care without providing special treatment. Such measures could consist, for example, of eliminating occupational therapy, recreational therapy, psychiatric treatment, outpatient services and the like. With this approach, economic considerations become the determiner of programs in a large measure.

There may be economies which could be effected through study of procedures, record systems, work loads and such which would not detract from present service and, in fact, might improve it. The question here is that of the present applicability of these techniques to psychiatric programs.

2. *Expansion of Service.*—Economy here would be based on the long-run expectation that improved treatment facilities would ultimately reduce over-all cost by successful rehabilitation of larger numbers of patients in shorter time periods. The procedure would depend on taking a calculated risk, the success of which could be determined only after the fact. The approach consists of making available the most appropriate treatment which psychiatry, psychology, and the other specialties can devise and later determining if this actually results in measurable improvement in patient rehabilitation.

3. *Increase Research.*—This procedure would put the emphasis of economic resources on a concerted research program while maintaining patient care and treatment programs at their present level or even changing them by expansion or contraction. Such a program would, presumably, concentrate on basic research, at least, initially. Later there might be emphasis on research dealing with application of the results of the basic research.

4. *Reorganization of Services within Present Resources.*—An approach of this kind assumes that the present services are not the most successful means which could be devised to arrive at the desired goal of patient rehabilitation and that, from the point of view of this analysis, a reorganization of means could lead to a decrease in economic costs of mental illness in the long run. Rather extensive experimentation with considerable program flux would doubtless characterize attempts of this nature.

A few comments about the implications of each of these general alternative economy measures are in order. The notion of reorganization of present service is appealing, if only because it suggests that by some effort, no matter how herculean, it will be possible to do better. To "do better" probably means to "do different" and just what the change should be may be largely a matter of trial and error. In and of itself this sort of empirical testing is probably ra-

**It is not meant to imply that program planning is appropriately determined by economic factors. Rather, resources are assumed to set limits on the program and certain alternatives can be considered from the economic viewpoint. This is not economic determinism but rather is a long run analysis of the interrelationship between program and resources.

tional enough and may yield fruitful results. There are two easily recognizable dangers in it, however. First, change in program may not make any actual difference in results with patients, nor in future costs which is the focus of attention here. Second, it is not an easy matter to bring about extensive change in programs which have become institutionalized.

Systems have a way of maintaining their equilibrium which, while necessary and advantageous for an ongoing program, may be difficult to disrupt. If such disruption is brought about there may be severe disturbances in the system which could be dysfunctional for the treatment and care of patients. On the other hand, means for bringing about program change can be found and, with appropriate care and recognition of the probable results of system change, it is possible to establish a new equilibrium which may be more effective for the purposes of the system—in this case the mental hospital. There is no logical reason to deny the possibility of reorganizing programs; the practical limitations may be great, especially within existing financial resources.

Economy in present services seems to be ethically dubious insofar as it requires eliminating parts of the treatment program or services to patients. Efficiency measures, on the other hand, might yield significant results both in costs and effectiveness of service. Doubtless, rather extensive study of this possibility is required if economy, within present resources, is to be sought. Perhaps the major problem with this approach is to reach a congruence of opinion and valuation of practices between the efficiency analysts and the professional staff since they are apt to perceive functions from a different perspective, and translational problems loom large.

Expansion of services with the long-run expectation of cost reduction is a method of eventual economy. It is predicated on the assumption that such enriched treatment programs exist at least in theory or can be devised and that they can be appropriately evaluated. There is the danger that expanded financial resources will not actually be put into well designed new or improved programs but will simply be used to provide a bit more of the existing services. Therefore, it appears that this approach requires some specific, large-scale planning prior to expansion, if it is to fulfill the expectation of long-run economy.

Emphasis on research has great appeal especially in a culture which has seen the fruits of technological research and which has a strong commitment to the belief that society can control its destiny with the application of scientific effort. But, there are other social commitments which operate against a decision to place major economic emphasis on research. An intensive basic research program demands a consistency of action which may have repercussions in the form of public and moral pressures to do more for the patients presently hospitalized. It requires holding firmly to a long-range goal. It is an expensive program.

Acknowledgment

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Leprosy Rehabilitation

Leprosy has suddenly become one of the world's foremost rehabilitation problems with only one properly trained doctor to help every million of those cured or arrested.

Paul Brand, M.D., of Vellore, India, pioneering authority in the field of leprosy rehabilitation, reports that surgery can enable leprosy-paralyzed hands to become useful and efficient at many jobs.

Director of orthopedic surgery at the Christian Medical College at Vellore, and director of New Life Center, a rehabilitation village for his pre- and post-operative cases, Dr. Brand has transplanted tendons and re-educated hands totally lacking in feeling for hundreds of patients in the past twelve years.

"Leprosy has suddenly become one of the most important rehabilitation problems of our time. Until recently, the outlook has been so hopeless for its 12 million sufferers that serious rehabilitation was attempted by only a very few. Little or nothing was done about the mutilations and paralysis of the disease for two main reasons: first, leprosy was thought to be incurable and it was thought that its deformities would be progressive unless the disease was cured, and second, if a patient has to be segregated for life anyway, why worry about mutilations that are common to all in the colony?"

Clinical Evaluation of Elipten

A New Anticonvulsant Drug For Epilepsy

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ELIPTEN® (Preparation BA 16308, Ciba) is a derivative of glutarimide which has recently been made available for trial in the treatment of the various forms of epilepsy. Doriden,® a widely used sedative and hypnotic derivative of glutarimide, has previously been shown to possess anticonvulsant properties but only at dosage levels which produced severe drowsiness in man. Similar compounds have therefore been assayed in experimental animals for similar anti-convulsant but less sedative effects. The present compound, elipten, was found to have such desirable pharmacologic effects, and clinical evaluation of this drug in the various forms of epilepsy seemed indicated.[3] Fabisch[1] and Lambros[2] have previously reported on the usefulness of this drug in limited series of patients with various types of convulsive disorder.

The chemical formula of elipten is *a*-(*p*-aminophenyl)-*a*-ethyl glutarimide. The structural formula is compared to doriden in Figure 1. It will be noted that both compounds are structurally different from other compounds commonly used in the treatment of epilepsy.

Material and Methods

Seventy-three patients suffering from various types of severe epilepsy classified as Generalized (Grand Mal), Petit Mal, Temporal Lobe (psychomotor) Focal and Myoclonus Epilepsy have been included in the present study. Fifty-two patients were studied as either in-patients or out-patients by the Neurology Service of the Detroit Receiving Hospital. Twenty-one patients were studied at other Neurology Services of Wayne State University (Detroit Memorial and Veterans' Administration Hospital). Of the latter group, five patients were under private care. In almost all, the diagnosis was confirmed by electroencephalographic examination. In this communication the diagnosis of petit mal epilepsy has been

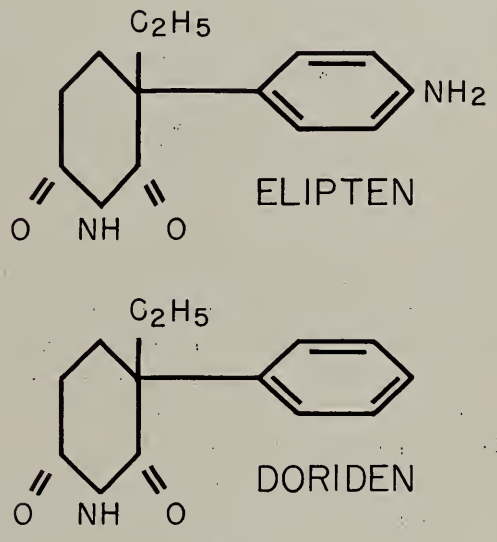

Fig. 1

reserved for cases with attacks characterized by simple loss of consciousness without convulsive movement and characterized by symmetrical three per second wave and spike abnormality in the electroencephalogram.

All patients had total and differential leukocyte counts and urinalyses performed at regular intervals throughout the study. The usual dosage of elipten was 250-500 mg. three times daily. Experience has shown that it is preferable to begin with an initial dosage of 125 mg. three times daily and increase this gradually over the ensuing two weeks. By this means the incidence of toxic reactions such as dermatitis and drowsiness are minimized.

Results of treatment have been divided into five groups:

From the Departments of Neurology, Wayne State University College of Medicine and the Detroit Receiving Hospital, Detroit, Michigan. This work was supported by a grant from the Michigan Epilepsy Center and Association and with the assistance of Howard S. Goldberg, fourth year medical student, Wayne State University. Dr. Bauer is a U. S. Public Health Service Special Trainee of the National Institute of Neurological Diseases and Blindness (B.T. 498). Elipten® was supplied by the Ciba Pharmaceutical Products, Inc., Summit, New Jersey.

TABLE I. RESULTS OF ELIPTEN THERAPY

	No. of Cases	Per Cent
Satisfactory (Elipten alone)	29	39.7
Satisfactory (Elipten plus other therapy)	9	12.3
Indeterminate	23	31.5
Unsatisfactory	12	16.5
Total	73	100
Toxic reactions	21	28

1. Satisfactory control of seizures by elipten alone.
2. Satisfactory control of seizures after addition of elipten to other anti-convulsant medication.
3. Indeterminate results.
4. Unsatisfactory results.
5. Toxic reactions.

We considered "Satisfactory Control", either by elipten alone or after addition of elipten to other anticonvulsant drugs, to be present if all seizures ceased (the majority) or if the incidence of seizures was reduced to one per month or less. Furthermore, it was required that patients should be satisfied with their drug therapy to be included in this group.

"Indeterminate Results" were defined as that group of patients who failed to take their medication regularly but who showed improved control or who showed some decrease in the number of their seizures but in whom the control was not sufficient to fall into the "Satisfactory" category. This group included several patients who indulged excessively in alcohol contrary to medical advice which possibly may have introduced an artefact since alcohol is well known to increase the incidence of seizures.

"Unsatisfactory Results" included that group of patients in whom the control of seizures was not improved or actually increased while on elipten therapy.

"Toxic Reaction" comprises a list of all patients in whom complications occurred such as dermatitis or leukopenia.

Results

Seventy-three patients have now been evaluated and of these, twenty-eight are being continued on therapy because of excellent therapeutic response. Of the forty-five patients in whom the drug has been discontinued, twenty-two stopped taking the drug by their own volition. Many of these had epilepsy complicated by alcoholism, and while they were well controlled in hospital, they failed to return regularly to clinic or to take any medication. In ten patients, the drug was discontinued because of side reactions which will be discussed under the heading, "Toxic Reactions."

Elipten was discontinued in nine patients because there was no improvement in the frequency or an actual increase in the number of seizures. The drug was discontinued in one patient after craniotomy for brain tumor and it was not found necessary to re-

TABLE II. CLINICAL SUMMARY OF CASES CONTROLLED BY ELIPTEN ALONE
(29 Cases)

Number of Cases	Diagnosis	Average Age	Age Limits	Average Duration of Seizures	Average Duration of Therapy
21	Grand mal	33	16-57	6 years	8 months
2	Grand mal and petit mal	14	13-15	9 years	14 months
5	Temporal lobe (psychomotor)	37	13-60	5 years	6 months
1	Focal seizures	67	67	1 year	10 months

institute therapy. Another patient was treated successfully for epilepsia partialis continua, and after discontinuing the drug, the seizures did not recur. Two patients died during therapy. One patient with severe generalized seizures asphyxiated during a convulsion following discharge from hospital. She was receiving numerous other anticonvulsant drugs including dilantin, mysoline, and phenobarbital at the time of death. It is not believed that elipten contributed to her demise. Another terminally ill patient suffering from myoclonus epilepsy died of progressive brain disease and inanition which was confirmed at necropsy.

Satisfactory Results (Elipten Alone).—Twenty-nine patients (39.7 per cent) were found to meet the requirements of this group (Tables I and II). The majority had generalized (grand mal) seizures with or without petit mal seizures in addition. The remaining cases suffered from temporal lobe (psychomotor) or focal seizures. Six patients had not previously shown satisfactory control using well-established anticonvulsant drugs (phenobarbital, dilantin, mysoline, celontin, tridione, and diamox). It should be noted that there were two patients in this group with associated petit mal seizures. These attacks

were also relieved or greatly improved by elipten therapy.

Satisfactory Results (Elipten Combined with Other Anticonvulsant Drugs).—Nine cases (12.3 per cent) were included in this group (Table III). All of these patients had generalized seizures except one with petit mal alone. Two patients had both petit mal and generalized seizures. The number of petit mal attacks was reduced below one per month and the generalized seizures were eliminated. In all these patients with severe epilepsy, the elipten was added because of failure to control the attacks with previous medication.

TABLE III. CLINICAL SUMMARY OF CASES CONTROLLED BY ELIPTEN COMBINED WITH OTHER ANTICONVULSANT DRUGS
(9 Cases)

Number of Cases	Diagnosis	Average Age	Age Limits	Average Duration of Seizures	Average Duration of Therapy
5	Grand mal	41	15-62	20 years	6 months
3	Grand mal and petit mal	21	13-27	12 years	9 months
1	Petit mal	28	28	28 years	2 months

Unsatisfactory Results.—Twelve cases (16.5 per cent) showed no decrease or an increase in the number of seizures while receiving elipten (Table IV). Eleven of these cases had been treated previously with other anticonvulsant drugs with unsatisfactory results. Eight had generalized seizures, three temporal lobe seizures and three petit mal epilepsy.

TABLE IV. CLINICAL SUMMARY OF CASES NOT CONTROLLED BY ELIPTEN
(12 Cases)

Number of Cases	Diagnosis	Average Age	Age Limits	Average Duration of Seizures	Average Duration of Therapy
6	Grand mal	37	21-59	13 years	2-5 months
2	Grand mal and petit mal	15	2-29	8 years	4 months
3	Temporal lobe (psychomotor)	38	31-46	8 years	2 months
1	Petit mal	6	6	4 years	2 months

Indeterminate Results—Twenty-three cases (31.5 per cent) were found to fall into this category. Of these twenty-three cases, fifteen had generalized seizures, two had epilepsia partialis continua, four had petit mal either alone or associated with generalized seizures and four had temporal lobe epilepsy. All four patients with petit mal showed a decrease in the number of both generalized and petit mal attacks while on elipten. Duration of treatment in this group varied from three weeks to ten months. One patient receiving the drug for ten months showed a decrease in the number of attacks by 50 per cent but this improvement was not sufficient to meet the requirements necessary to merit inclusion in the "Satisfactory Results" category. Seven patients in this group are well controlled with elipten but the duration of treatment has been too short to permit inclusion in the "Satisfactory Results" group.

TABLE V. TOXIC REACTIONS

Number of Cases	Type of Reaction	Dose Limits (mg./24 hrs.)
6	Drowsiness	750-1500
11	Dermatitis	750-1500
6	Leukopenia	750-1000
2	Polyarthritis	750-1500
1	Ataxia	750
1	Numbness of face	750

Toxic Reactions.—No abnormalities were noted in hemoglobin determinations or in urinalyses during treatment with elipten. Toxic reactions appeared in twenty-one cases (28 per cent) (Table V). Six patients complained of mild drowsiness which improved when the dosage was reduced or as the tolerance to this effect of the drug increased. Eleven patients developed a morbilliform or urticarial erythematous and pruritic dermatitis. The dermatitis was mild and transient in nine patients, appeared in the second and third weeks of treatment and subsided by the fifth week. In all cases the rash and pruritus could be controlled by either reducing the dose of the drug or the continued use of antihistamines for several days. If the drug was started in doses of 125 mg. three times daily the incidence of dermatitis was reduced. Flushing of the face was a complaint of one patient. This appeared within minutes of each dose and disappeared in several minutes. Numbness of

the buccal mucosa was occasionally mentioned by one patient but was transient and not troublesome. One patient developed cerebellar ataxia similar to that seen with dilantin or mysoline toxicity which promptly subsided when elipten was discontinued.

Of the patients with toxic reactions, nine (12 per cent) are considered by us to be serious. Six developed leukopenia, three developed severe allergic (presumably) reactions manifested by dermatitis, pruritus, urticaria with bullae formation and polyarthritis in one patient. The single patient with polyarthritis and dermatitis did not show improvement of symptoms when therapy was discontinued and it is now considered that she is suffering from systemic lupus erythematosis. Whether this preceded or followed drug therapy is not known. All other patients recovered without residual symptoms.

Leukopenia occurred in six patients (8 per cent) and is considered a high incidence from drug therapy and emphasizes the importance of carrying out serial routine blood counts if elipten therapy is undertaken. Three cases of the six showing leukopenia showed recovery to a normal white count without discontinuing the drug. Two other cases had also shown leukopenic responses when receiving previous therapy (tridione and paradione). No case in this series with leukopenia has progressed to agranulocytosis or has suffered ill effects. In a preliminary survey of 1,214 other patients receiving elipten, only one case of leukopenia has been reported.[3] Lambros[2] noted no cases of leukopenia in thirty-five cases studied. However, fourteen cases in the series reported by Lambros apparently developed a skin eruption similar to those reported here. Fabisch,[1] in a series of fifty-one cases, noted no cases of leukopenia and five cases of dermatitis. He also noted that small initial dosage decreased the incidence of dermatitis.

Conclusions

Elipten appears to have anticonvulsant properties which are useful in the treatment of generalized and mixed type of seizure disorders and less effective in petit mal and temporal lobe seizures. The drug is structurally unlike other anticonvulsant medications now in common usage. It is unusual in that it shows anticonvulsant activity in petit mal as well as in other forms of epilepsy. Potentially serious toxic reactions are frequent and include leukopenia, dermatitis, and drowsiness. Because of the high incidence of toxicity, its use should be limited to cases in which safer forms of therapy have proven ineffective.

Summary

Elipten, a glutarimide derivative similar to doriden but structurally different from commonly used anticonvulsant drugs, has been evaluated in the treatment of seventy-three cases of the common types of severe epilepsy. Fifty-two per cent of the group was satisfactorily controlled with either elipten alone (39.7 per cent) or in combination with other anticonvulsants. In twenty-six cases in which other previous medications had been ineffectual, elipten was effective in controlling seizures in fifteen cases (57.7 per cent). Elipten was considered a failure as an anticonvulsant in 16.5 per cent of cases. Results in an additional 31.5 per cent were indeterminate. Elipten appears to be most valuable in the treatment of generalized seizures and moderately effective in the treatment of petit mal, focal and temporal lobe (psychomotor) epilepsy. This broad spectrum of anticonvulsant activity is rarely seen in other drugs presently in use. Twenty-eight per cent of treated patients developed toxic reactions of which 12 per cent were considered serious. Severe allergic reactions with bullous urticaria and leukopenia may occur. Because of the high incidence of toxicity, its use should be restricted to cases refractory to other forms of therapy. Dosage should be started with low dosage (125 mg. thrice daily) and gradually increased over the ensuing ten days. Routine blood studies are necessary since leukopenia may complicate treatment.

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"It is the privilege of genius to unveil the splendour of things. Where the ordinary man would see only a disgusting wound, the naturalist worthy of the name stands enraptured before a battlefield on which the mysterious forces of life struggle for supremacy, in an encounter more inexorable, more terrifying than any that the strenuous abandon of Salvator Rosa ever depicted."—"Manuscript of a Village Doctor," Anatole France.

Congenital Malformations in Infants Born to Michigan Residents In 1958

A Preliminary Report

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INTEREST in the number of infants born with congenital malformations to residents of Michigan was greatly stimulated by the very high death rate due to malformations in Michigan in 1956. Only Minnesota and the District of Columbia had higher rates that year. We do not believe that these high rates are the result of better reporting, particularly when we find sparsely settled states such as Arizona, New Mexico, and Utah with the next highest rates.

This study is being undertaken in an attempt to determine the number of babies born with congenital malformations to residents of Michigan during 1958, and so far as is possible, the incidence of various types of malformations. Data is being accumulated from birth certificates, all fetal and infant death certificates, and cases reported to the Michigan Crippled Children Commission. Information will continue to be collected from the Commission and from death certificates of preschool children as these become available.

The number of infants born with malformations is difficult to determine. Statistics based only on information recorded on death certificates is incomplete since many malformations are not fatal, and in addition, death may be attributed to other causes. Hospital records, including birth certificates, are equally limited, since many malformations are not diagnosed until weeks, or even years, after the child's birth. Actually no source of information is complete since many malformations go undetected and so are unreported and could be discovered only by universal autopsies.

Information can, of course, be accurate and comprehensive only if birth and death certificates are conscientiously completed by each attending physician.

The Michigan Certificate of Live Birth, Section 25D, under "For Medical and Health Use Only" provides a space under "Describe any congenital malformations" for reporting any malformation of the infant noted at the time of birth. A condition such as erythroblastosis, is correctly reported in this section of the birth certificate, but it is debatable whether it should be included in a tabulation of malformations and has not been in this report. Other conditions such as torticollis or brachial plexis palsy are commonly due to birth injury rather than a defect. Still others, such as "tongue tied" or phimosis are sporadically reported by only a few physicians. Physicians occasionally erroneously include in this section information applying to the mother, such as "contracted pelvis." More careful examination of all newborn infants, with complete reporting of abnormalities noted at birth and more autopsies following fetal or infant deaths would add much to the completeness of our knowledge regarding malformations.

It was decided to collect information regarding infants born with defects for calendar years starting with 1958 in order that the incidence of malformations could be correlated with events of possible medical importance occurring in a given year, such as an epidemic of german measles.

TABLE I. SOURCES OF INFORMATION

	Number	Per Cent
Birth certificates	1,732	52.5
Fetal death certificates	264	8.1
Infant death certificates	495	15.0
Crippled children commission records	806	24.4
Total	3,297	100.0

Our statistics are all provisional and are based on 205,791 consecutive total births occurring in 1958, of which 3,101 were stillbirths. To date (Oct. 1960) we have knowledge of 3,297 infants born in 1958 who had one or more malformations. The sources of our information are given in Table I.

Infants were born with malformations in approximately the same number throughout the year with no statistically significant difference in monthly rates. The frequency by month of birth is shown in Table II.

The incidence of reported malformations occurring

From the Maternal and Child Health Division Michigan Department of Health.

TABLE II. COMPARISON BY MONTH OF BIRTH

Month	Total Births Live Plus Still	No. Infants with Malformations	Malformation Rate Per 1000 Total Births
January	17,012	306	17.98
February	16,107	260	16.14
March	17,511	274	15.64
April	16,829	272	16.16
May	17,260	249	14.42
June	17,041	282	16.54
July	17,790	285	16.02
August	17,546	291	16.58
September	17,862	287	16.06
October	17,585	254	14.44
November	16,479	262	15.89
December	16,769	275	16.39
Total	205,791	3,297	16.02

alone or in combination with other malformations is recorded in Table III.

A breakdown of the miscellaneous group of 385 is given in Table IV.

The rates with which the ten leading malformations were reported to have occurred per 1000 total births (live plus stillborn) are presented in Table V.

TABLE III. INCIDENCE OF LONE VERSUS MULTIPLE MALFORMATIONS

	Occurring Alone	With Other Malformations	Total Incidence
Congenital heart	515	56	571
Club foot	471	61	532
Cleft palate and/or harelip	217	47	264
Hydrocephalus	167	39	206
Birth marks including hemangiomas	151	7	158
Polydactylism	137	17	154
Hernias	129	19	148
Hypospadius	125	9	134
Anencephalus	94	15	109
Mongolism	85	21	106
Meningocele	53	48	101
Congenital hip	80	21	101
Amelia	65	8	73
Spina bifida	23	46	69
Ear tags or defects	51	9	60
Syndactylism	34	19	53
Imperforate anus	27	17	44
Monster	39	0	39
Pyloric stenosis	32	0	32
Kidney abnormalities	30	1	31
Hydrocele	17	7	24
Tracheo esophageal fistula	18	3	21
"Multiple lesions"	352	0	352
Miscellaneous	385	0	385
	3,297	470	3,767

On many birth and death certificates physicians have simply reported "multiple anomalies" with no reference to systems involved. Hence, a true analysis of combinations of defects is impossible, but the most frequent combinations reported were:

Spina bifida and hydrocephalus.....12 cases
Spina bifida and meningocele.....11 cases
Congenital heart and mongolism.....11 cases
Congenital hip and club feet.....10 cases

The rate at which infants with malformations were born in 1958 (as recorded through October 1960) is 16.0 per 1000 total births. This is at best a minimum figure. Many malformations, such as congenital heart disease and cystic fibrosis, are frequently undiagnosed until the child is several years old. Other malformations may be unreported until the child enters school. In addition, many infants or children with malformations which may be recognized at some later date are cared for financially by the family privately and so are unknown to us. Hence, the true incidence of infants born with defects in 1958 is undoubtedly considerably higher than that reported here.

TABLE IV. BREAKDOWN OF MISCELLANEOUS CATEGORY OF TABLE III

Malformation	Incidence
Defect of arms, hands, legs or feet	60
Cyst or tumors	39
Atresia of bowel	35
Eye defects	28
Cystic fibrosis	19
Defect of brain and/or skull	18
Defect of lungs	13
Undescended testicle	12
Volvulus and other G.I. anom.	11
Pilonidal cyst or sinus	9
Atresia of bile ducts	9
Microcephaly	9
Other genital defects	7
Asymmetry	5
Hirschsprung's disease	5
Leukemia	5
Cystic hygroma	4
Sickle cell anemia	3
Thrombocytopenic purpura	2
Extrophy of bladder	2
Dual anal openings	1
Osteogenesis imperfecta	1
All other anomalies	88

Of the four counties: Genesee, Macomb, Oakland and Wayne—each with more than 10,000 total births a year, and which combined have over 50 per cent of the births in Michigan—only Genesee had a rate (17.4) higher than the state average. In many counties in Michigan where yearly births number as few as forty, statistics on a one-year basis cannot be accepted as indicative of prevailing rates. Keweenaw County with a total of forty births in 1958 has had no infant reported with a congenital malformation to date. The

TABLE V. INCIDENCE OF DEFECTS
(Per 1,000 Total Births)

Malformation	Number
Congenital heart	2.77
Club foot	2.58
Cleft palate and/or harelip	1.28
Hydrocephalus	1.00
Birth marks	0.77
Polydactylism	0.74
Hernias	0.71
Hypospadius	0.65
Anencephalus	0.52
Mongolism	0.51

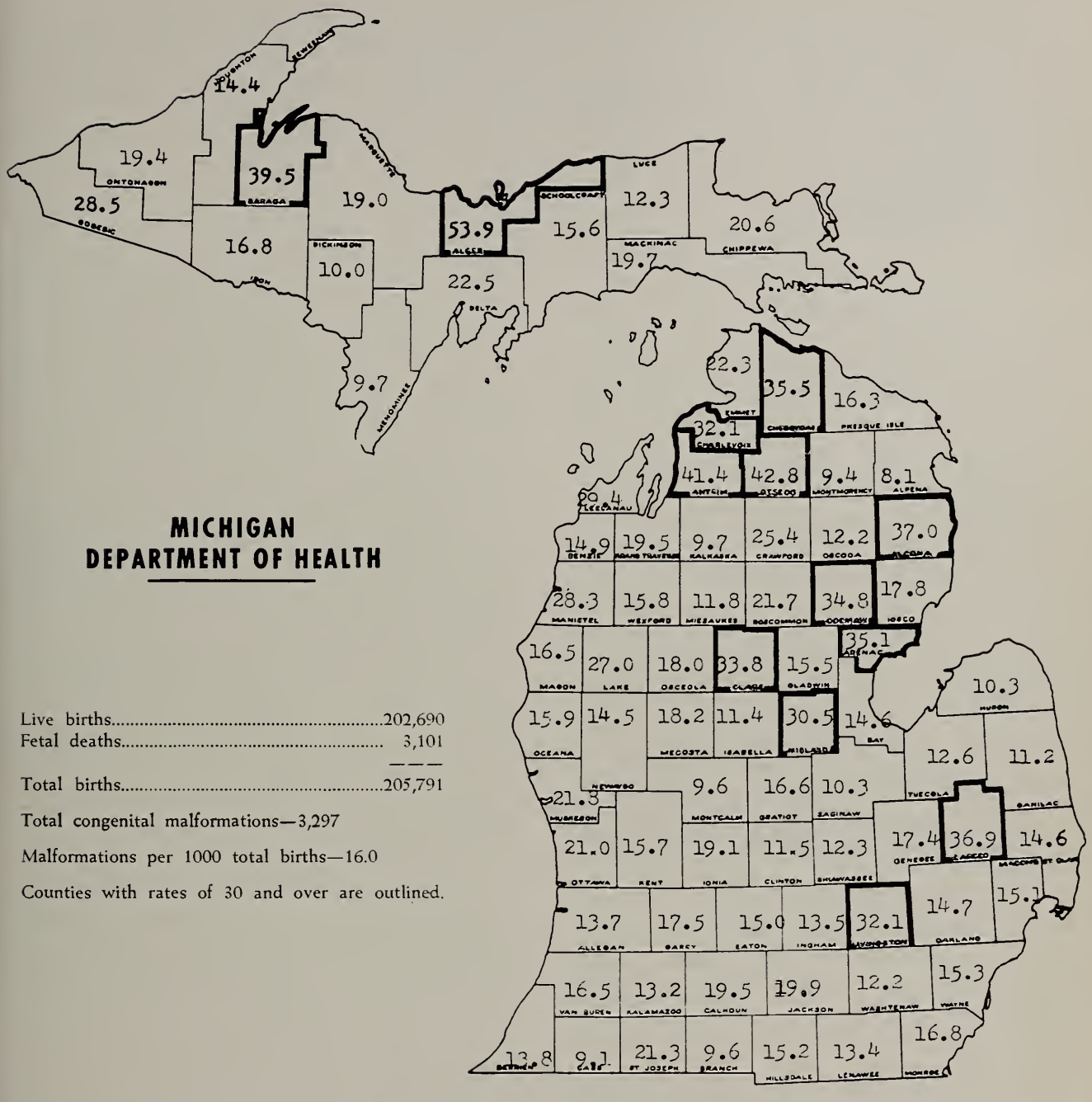

Fig. 1. Rate of birth of infants with congenital malformations in 1958 per 1000 total births by county of residence as reported through October 1960.

counties having rates of thirty or more infants per 1000 total births in 1958 with malformations are:

Alger	53.9	Cheboygan	35.5
Otsego	42.8	Arenac	35.1
Antrim	41.4	Ogemaw	34.8
Baraga	39.5	Clare	33.8
Alcona	37.0	Charlevoix	32.1
Lapeer	36.9	Livingston	32.1
		Midland	30.5

The twenty-five counties with rates of twenty or more and which had 8 per cent (17,640) of total births, had 14 per cent (470) of the reported infants with malformations. All but five are located in the upper peninsula or upper half of the lower peninsula (Fig. 1).

An analysis of the leading type of malformation, namely, congenital heart, will serve to illustrate difficulties encountered in this type of investigation. Results of tabulating the 277 death certificates on which it was stated that congenital heart disease was the

TABLE VI. TYPES OF CARDIAC MALFORMATIONS
(277 Death Certificates)

Type of Malformation	Number
Interauricular septal defect	23
Fibroelastosis cordis	19
Interventricular septal defect	16
Coarctation of aorta	12
Tetralogy of Fallot	9
Patent ductus arteriosus	7
Other circulatory malformation	31
Other and unspecified malformation of heart	160
Total	277

cause of death, are given in Table VI showing the types of cardiac malformation.

No differential diagnosis was made in 160 or almost 60 per cent of cases. It is highly probable that no further diagnosis was made because these infants did not live long enough or because no autopsy was performed. Their ages at death are shown in Table VII. Thirty-eight per cent lived beyond the neonatal period.

TABLE VII. AGE AT DEATH

Age	Number
Minutes or hours	35
1 through 6 days	85
7 through 27 days	49
28 days and over	108
Total	277

In reviewing vital records, one is confronted with a great variety of terms which refer to the same kind of malformation. For example, cleft palate, harelip, or both, may be referred to as mandibulofacial dysostosis, cheilognathus or Pierre Robin syndrome. Similarly "monstrosity" may refer to a number of defects, usually anencephalus, but should be specified. The use of a single descriptive term for each defect should be agreed upon.

Summary and Conclusions

The problems involved in attempting to acquire accurate statistics regarding congenital defects have been discussed. The congenital malformations which were reported as occurring in infants born to Michigan residents in 1958 have been enumerated. Ways of improving reporting have been considered.

The acquisition of accurate information regarding the prevalence of the various types of congenital malformations and their geographic distribution is necessary to develop research for their prevention, as well as for the treatment of children with congenital defects. An awareness on the part of all physicians of the magnitude of the problem is also essential. This can be achieved to the highest possible degree by:

1. Complete and accurate reporting by all physicians of all defects.
2. The use of standard nomenclature by physicians and hospital librarians in accordance with The World Health Organization's "Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death."
3. Avoiding the use of nodescript terms such as, "multiple defects," "congenital defects," "defects incompatible with life."
4. Clarification of the conditions to be included and excluded.
5. Increased use of autopsies to detect the presence of all defects.

Acknowledgment

We wish to express our appreciation to the Statistical Methods Section of the Michigan Department of Health and the Crippled Children Commission for their co-operation in supplying records for our use in the compilation of this material.

A Robertsonian Type of Chromosomal Change in L4946 Mouse Ascites Lymphoma

L4946 ascites lymphoma of AKR mice had maintained the karyotype consisting of forty-one acrocentric chromosomes for eighteen months in our laboratory. Suddenly a large mediocentric chromosome and a heterochromatic minute were formed, apparently at the expense of two acrocentric chromosomes, providing a classic example of a Robertsonian relationship manifesting itself within the neoplastic cell population of a transplantable tumor. The sensitivity to breakage of centromeric heterochromatic regions of the acrocentric chromosomes has been considered as a cause of this type of karyological evolution.—S. Ohno, E. T. Kovacs, and R. Kinosita, J. Nat. Cancer Inst., 24:1187-1197, 1960.

Congenital Abnormalities of the Eyeball Accessible to External Examination

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FORTUNATELY, congenital abnormalities of the eye are quite uncommon, however they are by no means rare. Most general practitioners are not too well acquainted with ocular abnormalities probably because their exposure in medical school was slight and their memory possibly hazy concerning this slight exposure. It is the intention of the author to present a rather superficial review of the more frequent of these infrequent happenings. It is hoped that this might serve as a sort of refresher course for the doctor who has neither time nor inclination to delve deeply into the scientific aspects of these types of disorders.

The first condition to be discussed is known as *microcornea.* In this condition the whole anterior segment of the eye is small, the recti muscles are inserted far forward, the curvature of the cornea is increased, and the corneal refraction is increased. The vision is quite often unaffected other than for the refractive error which is often hypermetropic due to shortening of the globe. This type of eye unfortunately has a tendency to develop glaucoma which is important to bear in mind when discussing this with the parents of youngsters. The size of the cornea is influenced as a recessive characteristic with a familial tendency.

Megalocornea is usually a bilateral anomaly without evidence of raised intra-ocular pressure. The anterior segment here, conversely to the microcornea, is usually larger than normal, the most prominent feature being an enlarged circumference. The lens and zonules are also enlarged and the corneal curvature is increased and usually has a high astigmatic error; however, in some cases the vision may be normal. The anterior chamber is always deep, the iris stroma and dialator muscles usually show some atrophy with a resultant miosis. Frequently iridodonesis (tremulousness of the iris) and a tremulousness of the lens is noted. Frequently this condition developes cataracts in later life. The condition is ordinarily nonprogressive, but frequently glaucoma due to a dislocation or a subluxation of the lens occurs. It is usually hereditary; however, the cause of the enlargement is obscure.

A condition confused with megalocornea is *buphthalmos* or *hydrophthalmos.* This is a condition of structural abnormality in the region of the angle of the anterior chamber which obstructs the drainage of aqueous, so that glaucoma results. The coats of the eye are elastic in infants and are therefore stretched under the increased pressure and the whole eye enlarges, resembling an ox eye. This enlarged globe may give the appearance of proptosis. The sclera may be thin and blue-tinged, the cornea enlarged, thinned at the periphery and globular in shape, and the anterior chamber is usually deep. The cornea may be steamy as in adult glaucoma, depending upon the duration and elevation of the intra-ocular pressure. Ruptures in Descemet's membrane may give the appearance of fine striae over the cornea. The iris is usually atrophic and tremulous. The lens is smaller and usually displaced backwards. There is often marked cupping of the disc depending upon the amount of increased tension. It is most commonly thought that this is a persistence of a fetal condition where both scleral and uveal portions of the trabeculae persist and stretch across the angle and thus plug it up. The iris may be adherent to the cornea around the periphery. Schlemm's canal and associated networks may be entirely absent.

This condition is often associated with other anomalies of the eye such as coloboma and persistent remnants of the hyaloid artery. Also it is noted frequently to have a coexistence of neurofibromatosis and nevi in various locations. This is caused by a developmental anomaly in the mesoderm of the corneoscleral junction. The vision is usually subnormal from the start and the condition may stabilize itself in early youth due to the stretching process opening up the trabecula and the angle thus allowing outflow of aqueous, and the persistent embryonic tissue may become atrophic. Deterioration of the eye may be so insidious that many cases do not come under observation until visual loss is far advanced. It is more

frequent in males than females and usually bilateral. This condition may be divided into three essential types mainly for convenience: (1) Early cases without corneal opacity or tears in Descemet's membrane which respond to conservative treatment. The treatment in this case would be miotics. (2) Cases in which a deformation is present and the raised tension has started to cause structural changes. In this type decompression operations are done. (3) The far advanced cases where the deformity is marked and the vision is lost. Sometimes in this type, enucleation is required. The operations used in the decompression procedures differ according to the different surgeon's tastes. The prognosis is extremely poor and the operative risk to the eye is great.

Keratoconus is a condition where the cornea is shaped like a cone. It is thought to be a congenital anomaly involving weakness of the corneal structures. This weakness is associated with postnatal influences and rarely causes symptoms before adolescence.

A *congenital leukoma* is a dense white opacity deep in the corneal substance sometimes having the iris adherent to it, but the chamber may be well formed. This may be ectatic and may lead to perforation. It is seen fairly commonly in buphthalmos due to a break in Descemet's membrane allowing the aqueous to enter the corneal substance. A familial tendency has been noted in this condition.

Congenital anterior staphyloma is a condition where a child is born with an opaque cornea which bulges prominently through the lid. This cornea has a slight bluish tinge because its posterior surface is lined by uveal pigment. The eye is useless and frequently ulcerates and perforates, requiring enucleation. Bowman's membrane is usually partially absent and Descemet's almost consistently so, and the lamellae of the cornea are replaced by irregular cellular tissue. The iris is adherent to the cornea over a part or a whole of its extent and the lens may be absent, sunken, or cataractous. There may be an intra-uterine inflammatory condition as a cause or it may be a maldevelopment. It has, however, occurred familially and it may lead to buphthalmos.

A condition known as *blue sclerotic* is a congenital condition of unknown etiology where the sclerae are light blue colored which is caused by a diminution of the opaqueness, with the uveal pigment shining through the sclera giving it a bluish tint. It is associated with multiple bony and joint dislocations, multiple fractures, and deafness. The large number of associated anomalies in this condition seem to point to a general defect in the development of mesodermal tissue. The condition is definitely hereditary and transmission is that of a simple dominant. It is thought that the parathyroids may have something to do with it. Sixty per cent of these cases have fragilis ossium, 60 per cent have otosclerosis, and about 40 per cent have the combined. There is no known treatment except that if there is an element of hyperparathyroidism, then x-ray treatment to the cervical region might be of some benefit.

The condition known as *aniridia* is correct only in the clinical sense because there is always a rudimentary iris present. The short stump of iris is often hidden behind the corneo-scleral margin. The pupil is large and occupies the entire area of the cornea and the lens border can often be seen. There is usually photophobia and usually poor vision and frequently nystagmus. The poor vision is sometimes due to a congenital absence of the fovea in this condition. This is frequently accompanied by other ocular deformities, like an irregular shape to the cornea, ectopia lentis, cataracts, and so forth. The influence of heredity in this case is extraordinarily well marked, behaving as a dominant characteristic. The iris may be adherent to the cornea, block the angle, and thus cause glaucoma. There are many theories present, but the strongest one is that there is a failure in the development of the retinal ectoderm or an aberrant development of vascular mesoderm, and possibly both.

Simple coloboma of the iris is the next condition to be discussed. There are many types of colobomata of the iris, there is the total type where it involves a whole section of the iris up to the ciliary border; the partial type when only a segment is missing; a hole in the substance of the iris, or in the ciliary border type. This is one of the more common types of abnormalities occurring in the eye and is usually unilateral but occasionally bilateral. The shape and location of the defect is extremely variable and the iris is usually well developed except in the region of the defect where there may be only a small stump or where the iris may be absent altogether. The sphincter muscle may be absent or ill-developed.

The persistence of a pupillary membrane is common, hereditary influence is strong being transmitted as a dominant factor. It is thought that growth of the iris is prevented by abnormally developed and persistent vascularized strands belonging to the fibrovascular capsule of the lens. Others think that it may be simply an ectodermal defect. A partial coloboma of the iris may be variable: a notch coloboma, which

is not rare and is frequently multiple; or holes in the iris (pseudo-polycoria), or iris dehiscence. In these holes there is not a separate sphincter, but the hole closes when the eye dilates. Occasionally this defect may lead to buphthalmos.

Iridodiastasis is a defect along the periphery of the iris leaving the pupillary margin intact, which resembles essentially, an iridodialysis. This condition is an incomplete coloboma of the iris of which there are two kinds: a bridged coloboma, which is a rare anomaly, where the coloboma is spanned by mesodermal tissue derived from the anterior mesodermal layer of the iris. This may be a delicate film of gossamer-like tissue bridging the gap or it may be a stout band of tissue resembling the surrounding iris. Pits in the iris are quite common. These pits are in the surface of the iris, the floor of which is darkly colored, pigmented epithelium. The cause of this is obscure but it may be a failure of the development of the anterior branches of the great arterial circle.

The next condition is a *hyperplasia of the anterior layer of the iris stroma.* The accessory iris membrane is a superficial mesodermal layer of iris which normally terminates at the lesser circle and undergoes an atrophy and thus persists as a delicate tissue interspersed with pits. Sometimes it is transformed into a thick layer and it may extend across the pupil leaving irregular defects in the substance appearing as an accessory pupil. The tissue may insert into the lens capsule and thus cause a cataract. It may be thought of as a type of persistent pupillary membrane; however, this is not strictly the case.

Congenital microcoria is essentially an absence of the dilator muscle. This is rare and is usually bilateral. The pupils are considered abnormal if when the eyes are looking at a distant object in diffused daylight their diameter is less than 2 mm. Circular contraction folds are usually absent and there are but few indications of shallow radial folds in the iris. The pupillary reactions are minimal and the only symptoms may be a twilight blindness which may be treated by a surgical iridectomy.

Corectopia is an anomaly in the position of the pupil. Minor variations in the positions of the pupil are common, but the variations may be considerable. The pupil may reach occasionally almost to the peripheral border of the iris. It is usually bilateral, symmetric, and most usually the position is up and out. The pupil may be round, oval, or irregular, but the reaction is usually impaired or diminished. The eyes are frequently myopic and the vision is generally poor. It is usually accompanied by ectopia lentis (displacement of the lens) and is often associated with other anomalies.

Hyperplasia of the pigment border of the iris, or flocculi as they are sometimes called, are grapelike clusters of black nodules growing from the pigmented epithelium of the iris to the pupillary margin. These are darkly pigmented excresences, usually at the upper margin of the pupil and frequently bilateral. These usually remain stationary but occasionally become enlarged or cystic. They may become detached and float free in the anterior chamber or they may retain a thin threadlike stalk.

Summary

The foregoing anomalies have not been presented in any particular order of frequency or importance but strictly in the order that they occurred in the mind of the author. It is also not to be inferred that this by any means covers the field of congenital abnormalities; however, the conditions discussed are the ones that are more apt to come to the office of an ophthalmologist as a referral from a general practitioner. Congenital ocular abnormalities occupy a rather small space in the broad field of medicine; however, it is the feeling of the author that undoubtedly most generalists have run into puzzling ocular abnormalities in their everyday practice of medicine. It is the hope of the author that this article might recall some of these abnormalities to mind and possibly furnish the generalist with further acquaintance with these defects.

Hippocrates Plane Tree

NLM plans to plant, on the grounds of its new building in Bethesda, a slip from the plane tree on the Dodecanese island of Cos under whose shade Hippocrates is reputed to have taught his students.

Under the dateline of July 15 the *New York Times* reported that U.S. Ambassador Ellis O. Briggs in Athens had received several of these slips from the Greek Government. They are now in this country, temporarily under the expert care of the Agricultural Research Service's Glenn Dale Nurseries.

A Constant Search for Blindness

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OPHTHALMOLOGISTS, pediatricians, and general practitioners know about amblyopia. They heard about it in medical school, discovered it in their offices, and have had their interest periodically stimulated by articles such as this. The unforunate parent, however, learns about amblyopia all of a sudden, and frequently after it has become uncorrectable. It's a terrible thing for a conscientious parent to learn that his six- or seven-year-old child is all but blind in one eye, particularly when he must be told that this blindness is no longer correctable. Yes, amblyopia continues to present a considerable problem to the doctors in Michigan.

The etiology of this disease is a simple one. There are only two known causes. One is a crossed eye, the other is a large refractive error in one eye. This sounds simple and it's difficult to understand why a problem such as this should continue to exist in our state. However, in spite of the simplicity, 5 per cent of the children beginning school next year will suffer from this ailment. When discovered early the treatment is certainly simple, but our problem has been one of early diagnosis.

Today, most medical people realize that an infant with a crossed eye needs attention. Physicians know that such a deviation, regardless of degree, will not correct itself. Examination and supervision by a qualified person is essential at a very early age. Certainly, most conscientious general practitioners and pediatricians in our state will very quickly refer to a qualified ophthalmologist any child at any age who demonstrates even the slightest tendency to a crossed eye. We are happy that the complacency of years past no longer bugs us in this regard. Physicians no longer tell a parent that the eye is only slightly crossed and time will correct it. We believe that this obvious negligence has been largely eliminated.

The second cause of amblyopia, a refractive error, is however, somewhat more difficult to diagnose. There is no obvious sign which indicates that this three-year-old has a monocular refractive error. One can't make this diagnosis as the child enters the examining room. The resultant amblyopia, however, is equally severe. Children with an untreated monocular error will certainly lose all useful vision in this eye. The treatment is, of course, identical and early referral to a qualified ophthalmologist is essential. The important part, the diagnosis, is not difficult, but unfortunately it is frequently overlooked.

We consider it our job and duty to make a concentrated effort to convince generalists and pediatricians that they must check visual acuity in children over the age of three years. Performing this test of visual acuity on a three, four, or five-year-old is not an insurmountable task, as this article will later explain. If we could be certain that every physician who examines children is doing an adequate visual acuity test on children three or over, there would be no further need for concern and very little need for vision screening in the schools. Following such a test, if a defect is found, early referral to an ophthalmologist will result in early treatment and frequently it is possible to effect normal vision before school starts.

The treatment doesn't necessarily involve hospitalization, surgery, or even glasses. Parents needn't be concerned or frightened. They should, conversely, be pleased that their family doctor was conscientious enough to do a visual acuity on the small child. If a refractive error is present, the ophthalmologist will prescribe glasses. Most children who have a refractive error of this degree readily accept glasses and present

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no problem to their parents. If the eyes are crossed, occlusion of the good eye may be temporarily necessary. Exercises may then follow, and it is possible that surgery will be necessary. These treatments are short, inexpensive, and not in any way dangerous to life of the child. Constant occlusion ordinarily is carried out for a matter of weeks. Orthoptic exercises may be necessary in certain cases for a period of a year or more. But these usually consist of thirty-minute visits with the technician once every week or two. Surgery, when necessary, can be done at any age. The period of anesthesia is short and often the hospital stay is no longer than twenty-four hours.

Because doctors of medicine were not routinely checking visual acuity on small children, some fifteen years ago the Michigan State Department of Health, aware of the problem, began developing vision services for children. We hope that some day vision screening in the schools, as carried out by the State Department of Health, local health departments, and the Michigan schools will no longer be essential.

We have learned much from the experiences of the Michigan State Department of Health of school vision screening. Much money and many hours have been spent, but on the positive side thousands of eyes have been saved. The Michigan State Medical Society has gone on record as approving vision screening in the school system when carried out by trained persons. However, it maintains that such screening must certainly be properly conducted, that parents must be made to realize that these tests are screening procedures and not complete or diagnostic examinations. Most important of all, it feels that no professional person with a vested interest should ever participate in mass vision screening. The reasons for this are obvious.

The Michigan State Medical Society goes further in offering the help of its membership to plan such programs. It recommends that no community-wide program in this field be undertaken without the approval of the county medical society, the local health department, or the Michigan State Department of Health. Vision screening is an important function and there have been many improvements in the past fifteen years.

Acceptable Screen Methods

Our responsibility in establishing satisfactory referral standards has led to evaluation and approval of screening equipment. Evaluation is made through trial runs and comparative studies. After comparative information is assembled on screening with a certain instrument, it is presented to the Sub-Committee of Ophthalmology of the Child Welfare Committee of the Michigan State Medical Society for discussion; the instrument is accepted if it meets current standards and it produces accurate results.

At present five instruments giving the battery of tests usually referred to as the Massachusetts Vision Test are accepted for use in Michigan. These include:

1. American Optical Massachusetts Vision Test (20 feet required).
2. Bausch and Lomb School Test (stereoscopic).
3. Keystone Michigan School Test (stereoscopic).
4. Titmus Optical School and Preschool Tests (stereoscopic).
5. Welch-Allyn Massachusetts Vision Test (20 feet required).

These instruments can be used for Snellen screening alone; the plus sphere test can be added to the basic Snellen; or the complete battery can be used in which screening for esophoria, exophoria, and hyperphoria is done in addition to the Snellen and plus sphere tests.

With the type of school construction presently in vogue and the crowded conditions in all schools, the stereoscopic unit not dependent upon 20 feet of space or outside light controls has proved to be a real contribution to screening. Without these instruments, screening would be completely impossible in many modern buildings.

When Snellen screening is to be done by the classroom teacher, a simple "pass-fail" chart using the 20/30 symbols which can be hung in four different positions is recommended. This gives the teacher sixteen combinations of six "E" symbols from which to select at random the three combinations of six symbols needed to screen each child's eyes. A plus sphere screening can be added by using + lenses and the 20/20 symbols which are printed on the reverse side of the chart.

In giving this kind of a test, no attempt is made to measure actual visual acuity.

Establishing Referral Standards

Accuracy of the referral of school children is under constant scrutiny by the Michigan Department of Health and the Sub-Committee of Ophthalmology. Reports of the examining doctors are summarized to

determine which children were found to need treatment.

Current referral standards are that children should be referred for a complete examination if they have

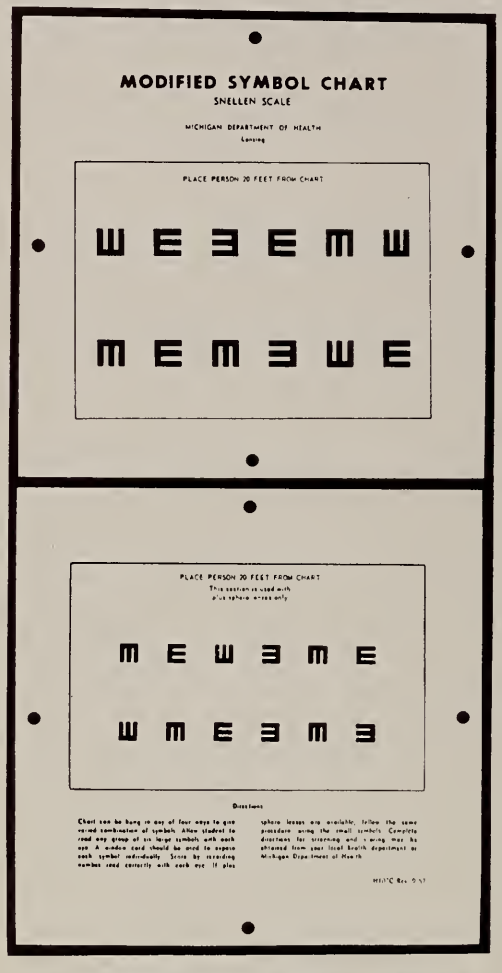

Fig. 1. *Modified Snellen Chart.*—Rapid, accurate Snellen screening can be done by the classroom teacher with this modified symbol chart with no danger of memorization.

less than 20/30 vision in either or both eyes (Test I in the Massachusetts battery), more than 1.75 diopters of farsightedness when reading 20/20 symbols (Test II in the Massachusetts battery) or if they have more than 1.25 diopters of hyperphoria, more than 4 diopters of exophoria at distance and 8 diopters of exophoria at near or more than 6 diopters of esophoria at either distance or near (Test III in the Massachusetts battery).

Parent and teacher observation is considered a valid basis for referral and should not be ruled out by a child's ability to pass a screening test. Any child having educational problems should also have the benefit of a complete eye examination. However, in all cases the doctor should be advised of the basis for the referral.

Percentage Referred

When the complete battery of tests is routinely given, about 10 per cent of the total number screened are referred. Of those referred, around 53 per cent fail Test I (Snellen), 4 per cent fail Test II (Plus Sphere), and 32 per cent fail Test III (Phoria); 11 per cent are multiple failures. Quite a few more are unable to pass the screening but are not referred because they receive routine eye care or have a permanent disability for which nothing can be done.

Technicians and Certification

It has been established that when instruments are used by trained screening technicians, time of the professional staff is conserved and screening results are extremely accurate. A method of training and certifying local personnel has been established by the State Department of Health in co-operation with state universities. Instruction periods last for one week during the summer sessions. Two or more classes are held each summer. At the end of these classes, which are taught by a member of the State Department of Health staff, a certificate is presented to each technician. Over 300 technicians have been certified since 1952 and some 150-175 are active each year. They are usually paid by the local health department or by the school system.

To keep the technicians up to date on new equipment, changes in referral standards, new techniques in screening, and changes in reporting, annual refresher meetings are held. The technicians must attend one of these meetings each year in order to maintain their certification.

Reporting by the Examining Doctor

A form to facilitate reporting by the examining doctors has been developed which is rather unique. It has greatly increased reporting particularly when used as a double postcard with the note to the parent on one side and the doctor's report on the other. The doctor's report is already addressed for return mailing to the health department or school. If confidential information is on the card, it can be inserted in an envelope by the doctor before mailing.

These reports are used by the health department nurses and by the teachers in helping to adjust the

children in schools. They are also summarized to help in determining screening accuracy.

A change will soon be made in these cards to ask the doctor to indicate if the difficulty is permanent or if future referral for the same difficulty will be unnecessary.

DOCTOR'S REPORT

FAILED PART 1 2 3

Name ..... School .....

Address ..... Date .....

Vision: Corrected R / L /

Uncorrected R / L /

Ocular Defect: Myopia..... Hyperopia..... Astigmotism..... Muscular.....

Eye Use: Special Seating..... Modified Work..... Normal.....

Treatment: Medical..... Surgical..... Exercises.....

Glasses: All the Time..... Part Time (when).....

No Treatment: Possible..... Necessary..... No Difficulty.....

Instructions and Remarks: .....

.....

.....

Return .....Wks.

for .....Mos. Signed ..... Degree .....

Exam. .....Yrs.

Michigan Department of Health H-360

Fig. 2. *Doctor's Report Card.* Used as a postcard and pre-addressed to the health department or school where it is to be returned, this form helps the doctor get needed reporting done easily.

Plan for Assistance to Local Eye Care Programs

The state vision program has been developed on the basis that building a successful local eye-care program for children is a community project. They must be considered local—not superimposed state programs. The state consultants do not go into a community and delineate a plan of procedure. There are certain basic recommendations and suggestions, however. These include use of an approved instrument by a trained person, using the screening—rescreening procedure, and setting up a plan for screening frequency.

The present recommendation for frequency is that the battery of tests be used in grades 1, 3, 5, 7, 9, 11, with the Snellen test being utilized in the interim year beginning in the kindergarten. Many variations of this are used dependent upon how this routine fits into the local school situation and how frequently the battery can be afforded.

Recent Adjustment in Screening Procedures

There was a notable increase in phoria referral following the introduction of the stereoscopic instruments. When these instruments are used, the tests follow each other very rapidly. It was determined to change the order of the tests so that the phoria tests were given first and the plus sphere test last. This would rule out the possibility of there being any left-over effect of the plus sphere lenses on the muscles of convergence which might influence test results. Since this change was made in the order of giving the tests, the number of phoria referrals has dropped to the normal level.

Better results have also been obtained by using line-drawing targets for the phoria tests rather than picture targets. It is recommended to technicians that instruments having picture targets be taped to cover details in the pictures.

Current Research

Even though most places report that 85 to 95 per cent of those examined receive treatment, a study is being conducted to try to determine if further improvement can be made in phoria referrals. In several areas (after the regular screening is completed), children failing the phoria screening are rescreened using 12 diopters of esophoria and exophoria at near and 10 diopters at distance. The reports of the examining doctors on need for treatment of the children who would not have been referred if the wider standards had been used will soon be summarized to determine if a change could be made to improve accuracy of referral without harming a large number of children.

Techniques Employed for Screening Three and Four-year-olds

Pediatricians and general practitioners particularly have felt the need for better screening techniques for three and four-year-old children. Old methods were not easily interpreted to children and as a result findings were usually inconclusive.

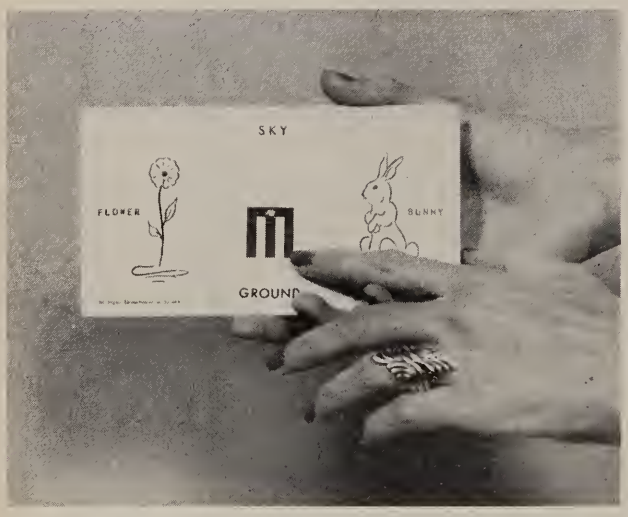

Fig. 3. *Home Teaching Device.* A home teaching device provides needed practice so that communication is easy and responses are reliable.

To make screening understandable to children and to attain their interest and secure their response, a chart has been developed showing a large picture of a rabbit at the right and a flower at the left, with sky and grass above and below. Six 20/40 E's are mounted on a wheel behind the chart so that by turning the wheel the E's appear individually in an aperture in the center. The child can indicate the direction in which each E is pointing by referring to the rabbit, flower, sky, or ground.

Miniature reproductions of the chart are to be sent to the children's parents prior to the screening. Instructions are on the back of the card telling parents how to play a game called "The Table That Points." The suggestion is made that the parents hold short practice periods by playing this game with the child for several days so that he becomes familiar with the E (table) and learns to tell the direction in which it pointed before he comes to be screened.

Although specifically designed for Michigan, the Titmus Optical Company has already put on the market a screening instrument based on these techniques and the Bausch and Lomb Company has one almost ready for marketing.

In conclusion, we hope that increased vision testing in the doctor's offices, and improved school and preschool screening will make for rapid progress toward our mutual goal, the prevention of blindness and the best possible vision for every school child.

Live Poliovirus Vaccine

During recent months, a number of conferences have been held at which progress in the field of immunization with live poliovirus vaccines was reported. These conferences include the meeting held in Moscow in May, the joint Pan American Health Organization-World Health Organization Conference held in Washington in June, and the 5th International Congress on Poliomyelitis held in Copenhagen in late July. The staff of the Public Health Service and its Advisory Committee on Live Poliovirus Vaccine has given careful consideration to the information available from these meetings—indeed, some members have actively participated in these meetings.

About a year ago recommendations relating to the manufacture and testing of live poliovirus vaccines were issued to facilitate the entry of interested manufacturers into this complex field. In late August the Committee met with the manufacturers and other interested persons in order to review these recommendations.

Revisions to these earlier recommendations, which will serve as the basis for adoption of regulations for manufacture and testing of the vaccine, have been agreed on by the Committee. These include the virus strains to be used, the general processes of manufacture to be followed, tests to be applied during manufacture, and factors relating to the continued safety, purity and potency of the vaccine.—L. E. BURNEY, M.D., Surgeon General, Public Health Service, U.S. Department of Health, Education, and Welfare.

Children in Hospitals

Robert M. Heavenrich, M.D.
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HOSPITALIZATION is one of the potentially traumatic situations any child can anticipate at least once. Both professional and lay people have been concerned with this problem and much has been written recently about it. Physicians recognize that anxiety aggravates symptoms and prolongs disease, but anxiety can be lessened. Physicians realize also that there is no better public relations for them, the hospital, or the whole of medicine, than a pleasant, positive hospital experience for both patient and parent. It becomes provacative when parents complain about their children's regressive, aggressive behavior or marked fearfulness after hospitalization for minor illnesses or surgery. But hospitalization can and should be a positive experience, a growth experience for both the youngster and his parents.

Development of a separate pediatrics department was the first step in helping all medical personnel see that children are not just miniature adults. In a children's hospital or in a general hospital, children have to adjust to unfamiliar demands and busy schedules. They need more time and explanations than adults; they present different physical, emotional, intellectual, and social problems. Hospitalization means separation from home and loss of love; it portends pain, repeated pain, mutilation, and annihilation. With these fears, children need more and consistent emotional support, for their concept of hospitalization is not based on rational logic. It is determined more by their fantasies, supported by their still immature thought processes. Based on a knowledge of their physical, emotional, and personality development, their needs can be met even within the limitations of a pediatric department of a general hospital.

While these principles have been generally accepted, there has been an apathy on the part of physicians, administrators, nurses, admission clerks, laboratory technicians, and other ancillary personnel to incorporate some of these procedures. Because there is constant need to impress personnel with the importance of prophylactic practices, some devices have been found useful in the pediatric department of a general hospital. This is a typical pediatric department of thirty-eight beds in a general hospital of 250 beds located in an industrial and farming community of about 150,000 population.

The most direct method used is the daily ward rounds which, in a community hospital in contrast to a large medical center, enables the personnel to have closer contact with the family and to become more aware of the whole child. During these rounds, the child's illness and hospital adjustment are discussed in relation to his previous medical and social history. Any of the participants in the rounds, physician, house staff, graduate or student nurses, may have an observation to contribute; but all become aware of the patient with an ailment, in contrast to the former practice in which the ailment predominated.

At weekly Grand Rounds, not only do all housestaff, pediatricians and other physicians attend, but also all city, county, public health and visiting nurses participate. While the nurses profit from inservice training, they contribute in terms of their knowledge of the child and his milieu and the effect of his illness on the community and vice versa. The housestaff becomes intimately impressed with the social and economic aspects of disease. Inevitably there has

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developed the best possible rapport and communication between public health nurses and the private practicing physician.

As another method to impress our personnel with the emotional aspects of hospitalization, and as a means to obtain a slightly different perspective and evaluation of our program, we invited representatives from the local child guidance clinic to participate in daily ward rounds and in "Grand Rounds." Our pediatric residents and rotating interns also attend staff meetings at the guidance clinic weekly to acquire more understanding of normal and deviant child behavior. At these meetings, they enter into the discussion and offer their comments on both the medical and emotional aspects of the cases presented. Over the two-year period of their residency, this would be the equivalent of a two months' placement on a psychiatric service.

To raise the question of where it is best to treat a child and what the effects of hospitalization might be, the resident and head nurse participated in a survey. Every afternoon at 4 P.M. for a month, they checked to determine in their opinion how many children (a) had been unnecessarily admitted to the hospital during the last twenty-four hours, (b) had been discharged but not called for, and (c) could be discharged with or without further care at home. These opinions, it is realized, were subjective and were made perhaps without a knowledge of all the details of the cases. The fact that attending physicians knew that a survey was being taken seemed to promote earlier discharge, or at least earlier discharge was more frequently encouraged by the house staff.

We were also interested in stimulating graduate and student nurses, even those who had just enrolled in the school, to be alert to the emotional problems of hospitalization. To do this they were given the following simple questionnaire:

(a) Who should be allowed to visit on pediatrics?
(b) What hours would you, as a nurse, prefer for visitors?
(c) If you were a parent, what hours would you want to visit?

These questions were asked not only to help the nurses reflect on our visiting program, but to help them understand better their own motivation, reactions, and relationship with the young patient and his parents. It is interesting to note that there was a difference in responses to (b) and (c). It was believed that they recognized that parents have problems to resolve when their child is hospitalized. In general, the questions were answered in terms of the needs of the nurse and the parent and not in terms of the needs of the child.

When a more liberal policy about visiting hours was set, the nurses as a group tended to be much more accepting than some of the replies to the questionnaire would have indicated. This was facilitated by the fact that the head nurse was a warm, self-confident person who was very capable in handling parents and nurses and was able to communicate her positive feelings to both groups as well as to the children. When the same questionnaire was given to the physicians, most of the replies indicated more concern for the nurses and administration than for the child's needs. One responded, "Change visiting hours, if it will make the parking situation better."

A very similar questionnaire was sent to the parents one month after their child's discharge from the hospital. Their replies were returned directly to the hospital administrator so that he too could see how parents felt about their child's stay in the hospital. In the questionnaires returned, many favorable comments were made regarding the flexibility of visiting hours and the parents expressed appreciation that in the time of their anxiety, the hospital as represented by the staff at all levels, was deeply concerned with the welfare of child and parents alike. Some mentioned that the role of the parent was not usurped, that they learned much in working with the nurses and staff in caring for their own child.

An arts and crafts program was inaugurated and conducted by the Junior League. Their presence on the ward again emphasized the "non-medical aspect" of the child's hospitalization. This program provided the children not only with games and toys, but also with mother figures who helped them and played with them. The children were encouraged to take home their "object d' art" and this gave them a very positive attitude toward the hospital. The program has been so successful that as a by-product, a volunteer department and hospital auxiliary have been developed to participate in other activities throughout the hospital.

Finally, perhaps the most interesting program constantly to remind the hospital personnel of the impact of hospitalization was the procedure of having the children draw pictures. On the first day of hospitalization, an intern asked the child to draw a picture of a boy or girl. Then a day or two later, the request was repeated with the directions being changed to "draw a boy or girl who had been in the hospital."

Many of the comments the children made were recorded. The interesting drawings were made into slides for group presentation to medical, hospital, social work, PTA and service clubs. There was a good response to the hospital program by these people. It was only in evaluating the drawings and comments that certain impressions were apparent. The very act of the intern's asking children to draw a picture fostered a good relationship between the doctor and the child and increased the intern's attention to the over-all problem of the child and to his feelings. Drawings can be most beneficial in terms of getting acquainted and allowing children to get out their feelings on paper in the presence of an interested, friendly adult figure. While the intern was aware of some of the implications of the drawings and comments, the actual interpretations were made by the consultant from the local child guidance clinic.

Some of the drawings indicated graphically how the children felt. The second drawing (a child who had been in a hospital) indicated greater dependency. Buttons were interpreted as a dependency-need indicator and there were many more buttons on the second drawing than on the first. However, above and beyond this in some of these sets of drawings, the children actually seem to fade away in each successive picture as their identity is lost. They are in bed, on a chair, or have crutches, or some other kind of support. Their drawings tend to indicate how much more their inadequacy feelings increase because of their hospital stay. There is a lot of overcompensation in terms of increase in the size of the figures in the drawings. The children in the pictures are not active, and tend to show a real need for build-up, for reassurance and encouragement. There is a great deal of concern with body parts and more especially those parts that are injured or are receiving medical attention. These children had a real need for reassurance that they will leave the hospital without losing anything vital. This was especially illustrated by one boy's drawing that changed from that of an active youngster to a boy with a crutch, hat and foot emphasis, showing that he was quite concerned about his foot which was the medical reason for his being in the hospital. He was also concerned symbolically with possible loss of his masculinity. The repeated concern is that something will be taken away from him. In a control group of school children who were asked to draw the same pictures, there was a marked tendency to associate being in a hospital with losing some part of their body or having some injury done to a vital part of their body.

Children are very vulnerable when in the hospital. They do become more dependent, feel inadequate and revert to a much more immature existence. They are very suggestible and receptive to any kind of stimuli whether it is negative or positive. The drawings they made repeatedly emphasized and illustrated these principles.

Discussion

There has been considerable interest in the emotional aspects of hospitalized children. This paper describes some techniques which proved helpful in a general hospital setting in alerting personnel to the total needs of the child. Ward rounds, questionnaires to nurses, doctors, and parents; visits of residents and interns to the local child guidance clinic; an arts and crafts program; and drawings by children in the hospital were used to stimulate interest. This is an ongoing study which already has shown many positive results. Many other techniques and procedures have been used to keep personnel aware of possible emotional trauma of hospitalization and to prevent unhappy results. School children have been encouraged to visit the hospital when they are well. Movies are available to them and their parents. There are questionnaires about the expressions used by children and their customary habits that can be filled out at admission time. Children have been encouraged to bring their own pajamas and pet toys from home. Pediatric departments have been enlivened with bright colors, home-like furniture, playrooms, live pets, sunporches, television and music. Meals are served family style. Library books and toy carts are available. Many hospitals are developing facilities so mothers may stay in, room in, with their children until discharged.

The American Academy of Pediatrics has published a manual, "Care of Children in Hospitals"* which reviews many problems. The Department of Maternal and Child Welfare of the Michigan State Health Department, in co-operation with the Child Welfare Committee of the Michigan State Medical Society and Michigan Branch of Academy of Pediatrics, is also preparing a check list for hospitals, elaborating on many of these and other principles of care of children. This will be valuable for self appraisal and improvement of pediatric services.

Repeated inservice orientation of all hospital personnel is needed, for all the benefits of good physical and material facilities can be negated unless protected by a happy, interested, competent, sympathetic staff.

*"Care of Children in Hospitals," American Academy of Pediatrics, Evanston, Illinois, 1960.

The Problem of Fluoridation

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FLUORIDATION as a public health measure has become an exceedingly problematic and controversial issue. This has transpired from the inability of the medical and scientific professions to preserve this as a public health measure to be dealt with by public health and scientific professions. Instead, it has been dragged into the public where the uninformed and biased have made it an issue ranging anywhere from a communistic plot to a political issue. Fluoridation has become as much (if not more) of a problem than was the institution of vaccination, immunization, chlorination of water, and pastuerization. Whenever any type of public health measure that requires some scientific basis becomes an issue among the population as a whole, and is allowed to get in the hands of the prejudiced, the hate-mongers, and the uninformed, one can expect to have considerable opposition in the institution of such a measure. This is exactly what has happened with the fluoridation issue, and this is why it is such a problem.

There seems to be little doubt in the minds of the great majority of the medical and scientific profession who have studied the problem or looked into it, that fluoridation ranks with and even above any other public health measure that has been introduced.

The basic research on fluoridation has been thorough, comprehensive, and substantiated. When one considers that over 8000 articles have been written on the subject, one wonders what else can be said about it. The first relation between fluorides and dental health was noticed in 1892 by Dr. J. Crittendon Browne. Since then the work has been extensive. One of the first authorative and illuminating reports comes from our own city of Grand Rapids, Michigan. At the same time, similar research projects were being repeated in Newburg, New York; Brandford, Ontario; Cheboygan and Madison, Wisconsin; and Evanston, Illinois. The results of the addition of fluoride to the water—one part per million—in these cities, have been carefully analyzed and the studies carefully controlled. The results of these studies have been very good, have correlated with one another very well and established quite definitely the benefit that occurs from the fluoridation of water. In different localities where these studies have been made (whether the fluoride has been placed in the water or whether it has occurred naturally), all reliable scientific reports show that only benefits result from this addition. These preliminary works have been duplicated and substantiated so that there should be very little question as to the beneficial effects. Also work done subsequently, especially by the Public Health Department, has ruled out with certainty the possibility of harmful effects on any system of the body from the fluoridation of water.

Fluoridation Increasing

It is significant when one reads the list of supporting and endorsing organizations for fluoridation. They include the World Health Organization; the Department of Health, Education and Welfare; Michigan Health Department; health departments of every state; American Dental Associations, and all schools of Dentistry; The American Medical Association, American Academy of Pediatrics and the American Public Health Association. It is also recomemnded by the American Nurses Association and, interestingly enough, the Commission on Chronic Illnesses. The National Research Council, The Michigan State Medical Society, the Michigan State Dental Society, and also many legal, civic and labor organizations have approved of fluoridation, as have many medical schools.

At least thirty million people in the United States are receiving fluoride in their water. Some of this is natural and some is added. Nearly 2000 communities in the United States are treating their water with fluoride to prevent dental caries. In Michigan, the number of communities which use fluoride water are approximately seventy and, in addition, fifty Michigan communities have naturally fluoridated water. What better proof could there be of the effectiveness of fluoridation when consistently from this number of people there is a reduction of 60 to 70 per cent in tooth decay? Also, in fact, there has never been any substantial reports of any harmful effect; certainly from such a number we should be able to find at least one substantiated report concerning the detrimental effects if they were present.

The number of cities which are placing fluoride in their water is gradually increasing. This rate of in-

crease has slowed from what it was ten years ago due in part to the general apathy of the population and also to the physicians and dentists who should be more interested. It is surprising the number of physicians that actually do not have a positive stand on this question and it is even more surprising the number of physicians and dentists who actually do not know whether or not fluoridation is good. There are many physicians who, when asked by the lay public whether fluoridation is beneficial, can only state their general impression. They can give no background material to this question and, what is even worse, they have no knowledge of where to refer to find the information.

Without much doubt, fluoridation of water is a most practical and certainly a most economical method of administering fluoride to a community. Sodium fluoride can be taken by pill or drops by the individual, if given daily from infancy to the adulthood. The expense is not too great but the practicality of this method almost eliminates it as a possibility when one considers the whole community and not the exceptions. It is almost impossible to induce any number of people to give or use anything, including medication, to a child or to an adult for a period of ten to fifteen years unless, of course, there is a threat of life or death involved. I feel it would be unlikely, with exceptions which are a minority, to expect a community to give sodium fluoride to their children for a ten to fifteen-year period, even if it were supplied without cost. It has to be administered in such a manner that the individual himself is left out. In other words it must be automatic with the human factor eliminated.

Quite recently we have had quite a bit of publicity about the use of a particular type of toothpaste which contains fluoride. From literature available, it would seem that this particular toothpaste does have some beneficial effects, if used daily and constantly. This has been endorsed by the American Academy of Dentists, but has been put on a Class B list which means that it is endorsed with reservations until adequate proof is obtained. This is a feasible and effective method for introducing fluoride to the teeth. A last method of application is topical which is being used in school children throughout Michigan and the nation. This is provided by the dental societies and the public health societies. This, too, is an effective method. The percentage of reduction in dental caries is not quite as predictable nor as great. It involves considerable work and expense, much of which is needless when other more practical methods may be had. Again, there is the necessity of human participation—which, from past experience, is never 100 per cent.

Controversy

The recent article by Donald J. Galagan, D.D.S.[1] on the nature of the fluoridation controversy in the United States, is very enlightening in explaining the difficulty in presenting this subject. He groups the people who are opposed to community fluoridation into four distinct groups: (1) The professional hate-monger who actually believes that such a thing as fluoridation is an evil plot against the people, conjured up by conspirators, capitalists, communists, and so forth; (2) the pseudo-health believers (This group includes members of religious organizations, chiropractors, naturopaths, organic gardeners, and the like. This group is opposed to almost every type of public health advance, and its opposition to fluoridation isn't unexpected); (3) those individuals who seize on the fluoridation controversy for personal notoriety or for increased status or prestige. Often in this group is a physician or dentist. In this group also is the individual who may dislike a person or organization that favors fluoridation and who therefore opposes the procedure as a means to an end. (4) This group is composed of those who see fluoridation as an invasion of the individual right to make his own decisions about what he wants to do for himself. This group includes many respectable, responsible individuals. In the case of fluoridation, the adding of an element to the water reaches almost every resident in the community. This difference has made the residents of many communities receptive to the propaganda produced by the organized anti-fluoridation forces.

In a study of various communities in which fluoridation has been accepted and also in a study in communities where it has been rejected, some interesting factors have arisen which may contribute to the acceptance of fluoridation by a particular community. The following are some of the factors which have been drawn. (1) In those communities where there is a high educational level, fluoridation has been much more acceptable then in those communities where the IQ or educational level is low. (2) Communities with a large number of children under the age of fifteen seem to accept fluoridation more readily than in communities where a large percentage of the people are over sixty-five.

Other factors which must be considered are the psychologic factors affecting each individual who must take some type of a regime which has to do with his

health. Psychologic studies brought up by Doctor Callahan revealed that in order for a person to be ready to accept any kind of voluntary health program or medication, he must feel that he will be susceptible to the disease. That is, that he can personally acquire it. Second, that this particular individual must feel that the disease will be severe if he does acquire it and possibly be a threat to his life. Third, the individual must believe that the proposed health measure will be effective and beneficial in preventing or alleviating the disease that he is susceptible to. In evaluating this in the light of fluoridation, we can draw some conclusions:

Caries a Health Problem

Old people and those people with children who have already grown up are not likely to be very concerned about dental cavities since the days of their active caries have passed and they do not see it as a personal problem to them. On the other hand, the propaganda distributed by the anti-fluoridationist proclaiming that fluorides can cause cancer, cataracts, heart disease, stomach disorders, kidney disease, et cetera, produce doubts in the minds of these people because these are ailments which the elderly population is susceptible to. They respond normally, then. With any doubt at all in their minds—that there may possibly be some harm, they will vote against fluoridation. As far as the severity of the disease is concerned, few people are alerted to the seriousness of dental caries as a health problem. In the younger groups of course, this can be quite a financial burden and is a potential source of expense. However, the older population is not likely to continue to have high dental costs. Here again the claims of the anti-fluoridation group are that the relatively serious diseases such as cancer, heart disease, and the like, will result from fluoride ingestion. Such claims are likely to seem more important than the dental caries to a relative majority. Because of the nature of its actions, fluoridation is beneficial to the adults of tomorrow. Consequently, only the people who have children of their own and who are intimately concerned with children, are likely to see the effects of fluoridation as beneficial. Since the greatest proportion of the voting or decision-making population can expect no benefits directly for themselves, they are not likely to be favorably disposed to fluoridation.

The problem of fluoridation as it exists today is not one of proving fluoridation is beneficial but rather convincing people that fluoridation is not harmful. This is a problem of educating a mass of people who are uninformed through no fault of their own. This evolves into another case of public health education. At the same time, the job is made more difficult because of a strong group of people who are in opposition to fluoridation for reasons which have very little to do with health and welfare—a group which is very strong, very opinionated and well-backed-financially in most instances. Members of this group cannot be talked to, swayed or reasoned with; the prejudiced among this group are so many that there is very little hope of changing their ideas.

As physicians, we must take a stand, we must promote health, we must urge vigorously proper fluoridation of municipal water supplies.

Reference

1. Galagan, Donald J.: The nature of fluoridation controversy in the U. S. A. Australian Dent. J., 4:3, 149-155, 1959.

Colon and Rectal Carcinoma

The co-operation of physicians is requested in studies on colon and rectal carcinoma recently initiated at the Clinical Center, National Institutes of Health, Bethesda, Maryland. Encouraging results in the treatment of gastrointestinal carcinoma have been reported using the pyrimidine analogues 5-fluorouracil and 5-fluorodeoxyuridine. However, other reports have raised the question of their effectiveness.

The Chemotherapy Service of the National Cancer Institute is conducting studies of these agents in carcinoma of the colon and rectum in order to better define their place in the treatment of metastatic gastrointestinal neoplasm. The side effects of these agents may be considerable so patients must be in good general condition in order to tolerate adequate doses. Also the presence of tumor masses which can be either measured directly or demonstrated on roentgen films is necessary in order to determine the antitumor effect of the drugs in short trial periods.

Patients can be accepted for these studies if they are ambulatory, have normal leukocyte count, renal and hepatic function and if they have metastases in the lung, peripheral lymph nodes (such as supraclavicular or cervical) or skin.

Referrals of such patients will be greatly appreciated. Physicians who wish to have their patients considered for study at the National Cancer Institute may write or call: Clyde O. Brindley, M.D., or Paul P. Carbone, M.D., National Cancer Institute, Bethesda 14, Maryland (OLiver 6-4000, Ext. 4251).

Trichophyton Tonsurans Infection of the Scalp

A New Menace

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THIRTY-ONE PER CENT of seventy-four new cases of tinea capitis examined in a six-month period during the latter half of 1959 were caused by *Trichophyton tonsurans.** In this same series, *Microsporum audouini* was responsible for 62 per cent of the cases and *Microsporum canis* for the remaining 7 per cent.

The significance of this high incidence of scalp infections caused by *T. tonsurans* is of concern. The organism apparently has been successful in completing its northward trek from Mexico and the Southwestern United States and conceivably may soon displace *M. audouini* as the number one cause of tinea capitis in Michigan.

Incidence and Epidemiology

The original investigation was intended to evaluate the efficacy of griseofulvin** in the treatment of the common varieties of tinea capitis found in the community, namely, *M. audouini* and *M. canis*.[1] The large number of cases of *T. tonsurans* of the scalp encountered, however, quickly led to a readjustment of concepts of mycologic incidence to correspond more closely to those in known endemic areas. Such reports of scalp involvement with *T. tonsurans* in these well recognized endemic sites varies. Among those with incidence rates higher than that of this report are Galveston (56.6 per cent),[2] the semi-tropical zone of the Rio Grande River (75 per cent),[3] and Mexico (89.4 per cent).[4] However, the locus of this study seems to enjoy the dubious distinction of actually surpassing other endemic centers such as San Antonio (11 per cent),[5] Phoenix (9.4 per cent),[6] Los Angeles (11.8 per cent),[7] and the San Francisco Bay area (16 per cent).[8] Central Indiana, also, has been aroused recently over this new public health problem because of a 5.6 per cent incidence of *T. tonsurans* scalp infection occurring in January through June, 1959.[9]

In 1946, Slaughter and Cawley[10] reported the first patient with *T. tonsurans* ringworm in Michigan. The lesion was located on the knee of a four-year-old girl. The first case of *T. tonsurans* of the scalp in the State was presented by Hand in 1951 before the Detroit Dermatological Society. In the next three years, Hand and Georg[11] collected an additional thirteen cases caused by this organism in a total series of 103 cases of tinea capitis. Of these fourteen *T. tonsurans* infections, thirteen were in children ranging in age from eighteen months to fourteen years. One was in a sixteen-year-old lad. The incidence of tinea capitis was, therefore, 13.6 per cent in the Northeastern section (Saginaw, Tuscola, and Huron Counties) of Michigan's lower peninsula. Hand and Georg attributed the relatively high incidence to the influx of Mexican itinerant farm, orchard and foundry workers with subsequent spread, especially to the local negro population. Ten of their patients were Negroes and four were whites.

The present series of cases is from an urban area, in Wayne County, immediately adjacent to Detroit. The population of 300,000 comprises approximately 25 per cent Negroes and 75 per cent whites. They constitute a comparatively stable, middle and lower-middle class working group and are not the usual indigent patients seen in a public clinical practice. Ordinarily, these patients have their medical needs met by their own physicians. Private physicians, school nurses, familial case finding and patient referrals constitute the sources of the patients.

Seventeen of the twenty-three cases were limited to five families. Patients ranged in age from two to eleven years with one female patient aged seventeen years. There were sixteen males and seven females in this series. Twenty-two of the twenty-three cases

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*Examinations were performed at the Wayne County Health Department, Eloise, Michigan.

**The griseofulvin in these studies was furnished as Grifulvin (McNeil) through the kindness of Dr. Gavin Hildick-Smith of McNeil Laboratories, Division of Johnson & Johnson.

were Negroes. The age, sex and racial distributions are not unusual and are in keeping with previously published reports.[6,11]

The *T. tonsurans* organism has been considered to have arrived in the North as a result of population movements from Mexico and the Southwestern United States.[11,12] *T. tonsurans* infections are spread from human to human, and animals are not thought to serve as reservoirs or vectors of the organism.[13] Because of the well established geographic origins of the infection, a deliberate attempt was made to search out possible contacts with individuals from Mexico or the southwestern United States. Questioning of patients, parents and school officials failed to disclose any association with individuals from established endemic centers.

A high familial incidence emerges as the one solid observation concerning the epidemiology of the disease in the current series. Continued close familial contact with the use of the same towels, combs and brushes, and the like, undoubtedly explains the spread within the family. On the other hand, the sources of infection within the community remain to be established. Surveys of the school population quite obviously are indicated and these are being undertaken. Perhaps more precise geographic localization of individual cases will provide data enabling us to pinpoint the "core areas" more accurately.

Clinical Features

In a diagnostic appraisal of the patient with possible tinea capitis, most northern physicians will reflect years of experience with a preponderant number of cases due to *M. audouini*. We have come to equate non-inflammatory, circular patches of broken off hairs occurring in children with ringworm of the scalp. A brief examination of the suspicious areas with the Wood's lamp results in a characteristic greenish-yellow fluorescence thus quickly confirming the diagnosis. The more sophisticated diagnostician may consider the possibility of fungal etiology when presented with inflammatory pustular lesions or the well-defined, rounded, nodular, boggy kerion. Especially when these conditions are seen in an adult, how many physicians consider fungus infection in the differential diagnosis of simple dandruff, impetigo, ordinary folliculitis, alopecia areata, cicatrizing alopecia, or discoid lupus erythematosus? The time is ripe to broaden mycologic diagnostic horizons. It is impossible to diagnose the less typical variants of *T. tonsurans* infection unless offending hairs from every suspicious scalp lesion are carefully subjected to microscopic examination and to culture on Sabouraud's dextrose agar. Moreover, one is unable to differentiate *T. tonsurans* from other fungal infections without these simple laboratory aids. Unfortunately, the Wood's lamp examination of suspicious hairs does not provide confirmatory evidence for the diagnosis of *T. tonsurans*. At best, there is an unenthusiastic greyish-white fluorescence rather than the brilliant characteristic greenish-yellow fluorescence of *M. audouini* and *M. canis* infections. What, then, was the spectrum of clinical pathology observed in these twenty-three cases? It was exceedingly diverse and occasionally occult as the following analysis will portray:

Four of the patients (17.4 per cent), including the seventeen-year-old girl, had "dandruff." Only our firm resolve to do a microscopic and cultural examination of hairs on all scalp pathology enabled us to make the correct diagnosis in the first case examined. As we gained more experience with this infection, we came to value the somewhat irregular, patchy character of the dandruff which was associated occasionally with minimal hair loss (Fig. 1A). These points proved helpful in providing a clue to the presence of the *T. tonsurans* organism. Otherwise, the dandruff was of the usual seborrheic quality with greasy yellowish scales. Although we encountered no such examples, micaceous scaling may occur. Psoriasis, of course, then enters the diagnostic scene.

Eleven of the patients (47.8 per cent) had non-inflammatory circular patches of alopecia essentially indistinguishable from those of the average case of *M. audouini* (Fig. 1B). In one, a two-year-old Negro male, generalized small areas of practically complete alopecia were observed that readily might have been mistaken for alopecia areata. Therapy, incidentally, was successful in restoring complete hair regrowth. In these non-inflammatory patches, again irregularity of outline was helpful in pointing the diagnostic finger at *T. tonsurans* (Fig. 1C). Individual patches did not exceed 5 cm. in diameter and the average diameter was between 1 and 3 cm. These patches, then, were decidedly smaller than those of *M. audouini*. Also, the tendency to find strands of unaffected hairs dispersed throughout the patches is quite unique to *T. tonsurans* (Fig. 1C). A word concerning what is regarded to be the diagnostic hallmark of *T. tonsurans* infections of the scalp—the "black dots"—is indicated. These are infected hairs that are thickened and darkened by the mass of fungus spores within them. The hairs tend to break off at the surface of the scalp leaving smooth,

bald areas with the hair stumps imbedded in the superficial scales. This affords a speckled or "black dot" appearance. In a minority of cases (three patients), this feature was sufficiently striking to be helpful. In most instances black dots could not be found after tedious search amidst the scales and debris. We feel that the presence of black dots is helpful but their absence should not in any way dissuade one from considering *T. tonsurans*. Wood's light examination revealed whitish-grey fluorescence in only two instances. This fluorescence was not too dissimilar from the change in fluorescence preceding cure in *M. audouini* scalp infections treated around three to four weeks with griseofulvin.

Six patients (30.4 per cent) had definite inflammatory changes varying from patches of discrete superficial folliculitis to crusted impetiginous plaques (Fig. 1D). The lack of sharp circumscription, small size of the patches and presence of normal hairs were once more noted. Regional lymphadenopathy was present in two cases with the more severe degrees of inflammatory response.

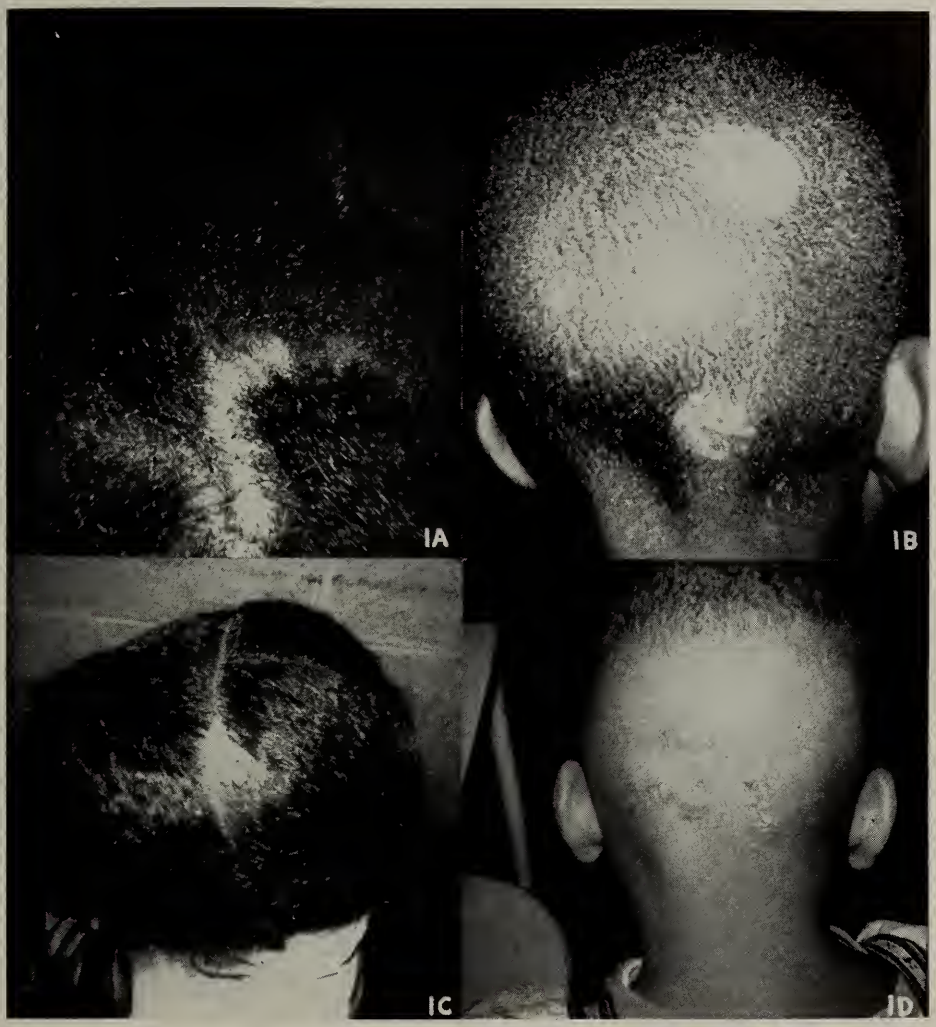

Fig. 1. *T. tonsurans* infection of the scalp. (A) Irregular patchy "dandruff" with minimal hair loss. (B) Non-inflammatory, circular patches of alopecia resembling *M. audouini* infection. (C) Non-inflammatory patch with irregular outlines and unaffected hairs within the patch. (D) Crusted impetiginous plaques and folliculitis.

We had only one patient (4.4 per cent) with a large kerion. This was located over the occiput. There were two aspects of note in this case. The first was the development of a generalized papular "id" reaction of the legs and trunk after one week of griseofulvin therapy. This eruption cleared spontaneously after an additional week of treatment. Secondly, the gross appearance of the culture differed strikingly from the

other strains found in this series. The primary isolate had a purplish hue in contrast to the sulphur yellow to tan appearance of the other cultures.

The occipital and temporoparietal areas of the scalp were the favorite sites of involvement. Lesions appeared at one or both sites in fifteen of the twenty-three cases. The occiput alone was involved in ten instances.

Fig. 2(A) KOH mount of hair infected with *T. tonsurans* showing parallel rows of large arthrospores within the hair (x150). (B) KOH mount of infected hair filled with arthrospores showing loss of chain formation (x300).

Mycologic Diagnostic Techniques

As noted previously, the brilliant greenish-yellow fluorescence of infected hairs under the Wood's light in scalp infections due to the Microspora is absent in *T. tonsurans* infection. This lack of a constant and characteristic fluorescence heightens the need for direct examination and cultural studies which one tends to forego when fluorescence does not appear in suspected cases. Only by means of these laboratory procedures can a diagnosis firmly be established.

The results of the laboratory examinations obviously depend on whether infected material is included in the specimen examined. In the absence of fluorescence acting as a beacon, the collection of clinical material for examination becomes a greater problem. An educated hand wielding the forceps is all-essential. Care and diligence are required in choosing the hairs and scales from the more active areas of the lesions, especially the "black dots" if the latter are present.

KOH Examination

Portions of the specimen from each case were examined in KOH mounts and the rest inoculated on Sabouraud's dextrose agar with streptomycin and actidione. The latter antibiotics were added to inhibit the growth of bacteria and saprophytic fungi. Care was observed to include all the specimen in either the KOH preparation or the cultures in order to avoid missing any infected material.

KOH examination revealed endothrix infection with rows of relatively large spores and hyphae inside the

hairs arranged parallel to each other and to the sides of the hairs (Fig. 2A). This was seen best when the microscope was focused to the plane of the hair with the greatest width. The arthrospores ranged in diameter from 4-7 microns. In certain specimens there were hairs that were choked so full that the spores appeared smaller and their chain formation lost (Fig. 2B). However, a few accompanying hairs with the characteristic spore size and chains usually were seen. Experience taught us to search for the infected hairs among the scales included in the specimen. In a number of preparations, the scales also were infected revealing the septate, branching hyphae characteristically found in scrapings from lesions of the glabrous skin or of the nail.

In contrast to the endothrix hair infection caused by *T. tonsurans, M. audouini* produces an ectothrix infection. Under the microscope the hairs are ensheathed by a mosaic of spores which are smaller. This outside sheath is best appreciated by focusing the microscope on the different planes of the hair.

Cultural Findings

Although a positive KOH examination is definite evidence of the fungus nature of the infection and indicates an endothrix or ectothrix invasion of the hair, it cannot be used for specific diagnosis of the causative organism. Species identification can be achieved only by cultural studies. Given an endothrix infection, cultures are needed to differentiate *T. tonsurans* from other endothrix dermatophytes such as *Trichophyton violaceum* and *Trichophyton schoenleini*. The latter two rarely, if ever, are encountered in this locale but the possibility of their importation from endemic areas is nevertheless always present.

Fifty-five isolates of *T. tonsurans* were obtained from this series of twenty-three patients with thirty-two repeat postitive cultures from seventeen patients while being treated.

Gross Morphology.—Initial growth of these isolates appeared on the third to fifth day after inoculation as whitish fuzz on the implanted hairs, or scales, or both. Subsequent growth was moderately fast so that in two to four days more the colonies attained a size of 8-12 mm. in diameter. The colonies at this stage were white in color and more or less circular, with regular borders, velvety to fine powdery surface, and an orange-yellow reverse pigmentation. At this time crater formation, folding of the surface, and pigmentation began to appear at the central areas of the colonies. The folding and pigmentation became increasingly marked and extended towards the periphery as the colonies became older. The vast majority of the isolates developed sulfur-yellow surface pigmentation; a few became cream to tan in coloration; one strain which had been obtained from the patient who developed a generalized id eruption exhibited a purplish pigmentation.

The cultures acquired striking folding of the surface with age. These were compared with the main variants of *T. tonsurans* described by Georg.[14] The present isolates belonged to either the crateriforme or sulfureum varieties. No cerebriforme or acuminatum type was seen. The surface texture of the older culture was more powdery with some isolates presenting a coarsely granular surface. The surface pigmentation varied from cream to tan to brown. The sulfur-yellow pigmentation that appeared at about one week's growth had been lost. The reverse pigmentation ranged from light to deep brown.

In comparison, the colonies of *M. audouini* isolated from patients during the same period spread more diffusely over the agar. The surface texture was more velvety and did not become powdery. Folding of the surface did not occur. The surface pigmentation varied from light grey to tan to light brown.

Microscopic Morphology. — *T. tonsurans,* unfortunately, does not have a characteristic microscopic structure, such as the fuseaux or macroconidia of *M. canis, Microsporum gypseum,* and *Epidermophyton floccosum.* Microscopic study of culture mounts from our strains revealed numerous microconidia, particularly when taken from the more powdery colonies. Rare macroconidia of the Trichophyton type were encountered in only four isolates. These were clavate, thin-walled and with three to six cells. Many chlamydospores were seen in all the strains, and nodular bodies in most. Two isolates displayed a few spirals and another two, a few racquet mycelia.

The microscopic picture was not of much help in differentiating *T. tonsurans* from *M. audouini.* The suggestive findings, when encountered, were the much sparser microconidia in *M. audouini* and the rare Trichophyton type of macroconidia in *T. tonsurans.* Georg[14] suggested the use of Wort agar for inducing the production of these macroconidia.

The repeat cultures obtained from patients under griseofulvin therapy did not differ essentially in gross and microscopic appearance from the original isolates before treatment.

Correlation of our results with KOH examination

and cultural studies confirms the value of performing both procedures. In the original attempts to demonstrate the organisms among the twenty-three patients before treatment, only eight were positive both in KOH examination and culture. In fifteen cases the organism was missed by direct examination, but appeared in the cultures. This was particularly true in the patients with the clinical picture of dandruff. In one case the organism was demonstrated only on the second attempt after both KOH examination and cultures were negative. In no instance during the pretreatment examination were the KOH mount positive and the cultures negative but this situation did occur a number of times during follow-up examinations of patients under therapy.

Course and Treatment

T. tonsurans infections of the scalp are noted for their indolent chronic course. Another feature is the occasional failure to clear spontaneously at puberty. Consequently, there is greater tendency to affect adults and curiously the adult female is affected far more frequently than the adult male.[2,3,15] Add to these considerations the frequent obscurity of the clinical picture, the high incidence of familial involvement with constant opportunities for reinfection and the disappointing response to topical treatment and one can readily appreciate the potential magnitude of the therapeutic problem.

Until recently, x-ray epilation ordinarily has been required for the cure of the more chronic non-inflammatory varieties of *T. tonsurans* infections of the scalp. Furthermore, the curative effects of x-ray epilation have been decidedly inferior to those noted in *M. audouini*. Also, unlike regenerating hairs in microsporum infections, the hairs in *T. tonsurans* infections are susceptible to reinfection. Hence, scrupulous follow-up treatment in an effort to remove all retained stubs of hair from the scalp has been required. As in the microsporum infections, the development of an inflammatory response with either pustules or kerion is considered a good prognostic sign indicative of spontaneous cure. The latter development may, however, take as long as twelve to eighteen months.

Since the advent of griseofulvin therapy, this gloomy state of affairs has been decidedly altered. One early report of treatment of trichophytic infections with griseofulvin heralds this agent's dramatic effectiveness.[16] Many infections of long duration, ranging up to thirty years and resistant to all forms of treatment, responded after several weeks of griseofulvin therapy. The cases in our own series are being treated with griseofulvin and the results of this therapy will be made known later.

Summary

The prime purpose of the report is to alert the practitioner to the high incidence (31 per cent) of tinea capitis caused by *T. tonsurans*. Preliminary epidemiologic studies are presented. The unique implications, clinical features, and diagnostic mycologic aspects of the disease are discussed and illustrated.

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Detroit Surgical Association

Abstracts of Papers Presented During the Past Year

MANAGEMENT OF THE PATIENT WITH THE POSITIVE CERVICAL SMEAR

HARRY NELSON, M.D., OSBORNE A. BRINES, M.D., ESTHER DALE, M.D., GERALD S. WILSON, M.D.

In an effort to establish more fully the accuracy of the cervical Papanicolaou smear, to study the causes of the so-called "false-positive" smears, and to therefore manage more intelligently the patient with a positive cervical smear, 100 consecutive patients with positive cervical smears diagnosed at the Yates Memorial Clinic in Detroit from January 1, 1956, through September 1958, were carefully followed from their initial examination at the Clinic to their ultimate diagnosis.

It was found that although the initial confirmation of the positive Papanicolaou smear was only 60 per cent, this figure rose to 94 per cent as more intensive effort was directed at gaining histological information. This included multiple punch biopsies, cold cone biopsies, dilatation and curettage, review of the cytological and histological diagnoses, and in rare instances hysterectomy.

SURGICAL CONSIDERATIONS IN OCCLUSIVE DISEASES OF THE CAROTID ARTERY

E. S. GURDJIAN, M.D., W. G. HARDY, M.D., D. W. LINDNER, M.D.
Grace Hospital, Detroit

Prior to 1950, there were scattered reports of cases of thrombosis involving the region of the carotid bifurcation. These were discussed as "unusual" causes of the stroke syndrome. Doctors Gurdjian and Webster reported four cases of carotid thrombosis in 1949. By 1953, our series had grown to include some thirty patients, and by 1956 there were seventy examples of carotid thrombosis. Thus, with increasing interest in the angiographic study of patients with cerebral vascular disease, occlusive lesions involving the carotid arteries are being observed more and more frequently. Our present series includes 258 patients with occlusive involvement of the carotid arteries, studied between September, 1948, and May, 1959.

The symptoms and signs in these patients varied considerably from sudden or apoplectic hemiplegia to mild episodes of dizziness or blurred vision. Angiographic study in these patients revealed complete occlusion of one or the other carotid artery in one hundred and thirty-one cases. The remaining 127 patients were found to have stenotic lesions, many of which were bilateral and frequently associated with either major occlusive disease involving branches of the carotid artery intracranially, or in some instances mass lesions including intracerebral hematoma, subdural hematoma, and brain tumor. In many cases, it was difficult to ascribe any of the patients' symptomatology to the stenotic lesion in the carotid artery in view of the existence of a major intracranial disease.

Surgical intervention was carried out in 111 of these patients, including seven craniotomies. A partial excision of a completely occluded vessel was done in seventy-eight patients, and in half of these cases an associated cervical sympathectomy was done in an attempt to improve collateral circulation through the external carotid system. Endarterectomy for complete occlusion was attempted in eight patients, but the circulation was believed to be restored in only one. Endarterectomy for a stenotic lesion was done in twenty-two patients, one of which had a bilateral operation. In each of these cases, good retrograde flow was obtained and the circulation was felt to be definitely restored in seventeen. The patency of the carotid artery in these seventeen examples was proven angiographically either on the operating table following the intimectomy or at a later date. Death occurred in three of these twenty-two cases during the postoperative period. Two of these patients were severely ill from the onset of their illness.

The prognosis in patients with stenotic lesions involving the carotid artery depends upon several factors. First of all, the collateral circulation either through the external carotid system or through the vessels at the base is extremely important. The possibility of embolization arising from ulcerating plaques in a severely atheromatous vessel producing forward embolism with occlusion of terminal vessels in the brain is a very strong possibility. Occlusive involvement of the major intracranial branches due to atheromatous plaques is another important factor in determining the effect of a diminished blood flow in the neck.

It is obvious that stenotic lesions involving the carotid vessels in patients past the age of fifty is a

fairly common occurrence. It is also obvious that a relatively small percentage of these people fall into the surgically amenable class. A very careful survey to rule out any existing mass lesion, needless to say, is vital as an initial step. The presence of multiple atheromatous lesions, both extracranially as well as intracranially, is also important in appraising operability. In any event, early angiographic investigation of patients with transient focal neurological deficits or abnormalities seems to us at the present time to be the only way in which severe and permanent hemiplegic states can be anticipated and perhaps avoided either by surgical or medical means.

THE TREATMENT OF ACUTE CRANIOCEREBRAL INJURIES

Wilbur D. Hilst, M.D.,
Aage Nielsen, M.D.
Receiving Hospital, Detroit

The occurrence of head injuries in the society around us, both as individual injuries or as a part of multiple injuries, forms a large problem for all doctors. The experience with 892 consecutive head injuries of patients admitted to Detroit Receiving Hospital over a two-year period was studied. The mortality rate for this group was 9.4 per cent.

This group of patients was studied in regard to mode of injury, the appearance of complications and their treatment. The basic principles of initial treatment and evaluation of head injuries were outlined. The surgical treatment of the complications, especially subdural, epidural and compound depressed skull fractures was outlined. Finally, newer adjuncts in treatment, notably urea and hypothermia, were discussed.

TRAUMATIC RETROPERITONEAL HEMATOMA

Shelby M. Baylis, M.D.,
Eugene H. Lansing, M.D.,
Wayne W. Glas, M.D.
Wayne County General Hospital, Eloise, Michigan

Fifty cases of traumatic retroperitoneal hematoma were reviewed. Pelvic fracture was by far the most common source of retroperitoneal hemorrhage.

Abdominal pain was the most frequent symptom. Back pain, syncope and nausea followed in decreasing frequency. Symptoms of blood loss were often present and, in several instances, occurred without evidence of obvious hemorrhage. In several instances the hematoma exceeded 2,000 ml. without a visible source of hemorrhage. Hematuria was present in thirty-nine patients. Intravenous pyelograms were probably the most valued single tool in the diagnosis of retroperitoneal hematoma.

Twenty-five of these fifty patients were operated upon. Fifteen of the twenty-five had intraperitoneal injury in addition to retroperitoneal hematoma. Supportive treatment alone was the method of management in the other twenty-five.

In general, we do not recommend exploration and drainage of retroperitoneal hematomas unless injury to the retroperitoneal portions of the gastrointestinal tract is suspected. We believe some patients with a diagnosis of retroperitoneal hematoma can be treated conservatively with close observation. This group of patients should respond to blood transfusion, have minimal or absent peritoneal signs, and abdominal x-rays should be compatible with this working diagnosis.

If doubt or uncertainty develops with this program, we then recommend immediate operation.

Medical History of War Offered

Many of the medical lessons learned during World War I had to be relearned under fire during World War II because of paucity of distribution of the World War I medical history.

Lieutenant General Leonard D. Heaton, The Army Surgeon General, in an endeavor to prevent this costly relearning process in the unhappy event of another war, has directed the preparation, publication, and distribution of the "History of the Medical Department, United States Army, in World War II." General Heaton is anxious that information of the existence and availability of this History be circulated widely among the profession, both military and civilian.

Of the forty-eight volumes programmed for the series, fifteen have been published and can be purchased for $66.50, or medical volumes can be ob- Documents, Government Printing Office, Washington 25, D. C. The set of fifteen volumes may be purchased for $66.50 or medical volumes can be obtained. Commanding officers of medical units may requisition copies for their Medical Units libraries by submitting DA Form 17 directly to The Historical Unit, U. S. Army Medical Service, Washington 12, D. C., Attn: Promoton Branch.

Conference on Youth

At the White House Conference on Children and Youth, the material presented from Michigan was outstanding, according to R. H. Trimby, M.D., of Lansing. Prepared by the Michigan Youth Commission, no State had anything better and many of the delegates looked to the Michigan group for leadership. This reflects quite favorably on the many organizations in Michigan working in the Child Welfare field.

"We must not be complacent but each and every one should work to help solve the problems and to keep Michigan in the forefront," states Dr. Trimby.

Each component county society is urged to have a committee active in child welfare work. The State Committee welcomes any requests or suggestions for further study.

The 1960 Journal

In 1960, we have rejuvenated THE JOURNAL in many respects. We have changed the type face to improve the readability. We have changed the headline type and the layout of many of the items, especially the original articles. We have arranged news items and other copy differently so as to group the material more logically.

During the year, we have continued the policy established twelve or more years ago of dedicating most of the numbers of THE JOURNAL to some special interest or project of the state medical society and its members. In these special issues we have asked these medical interests, specialties or local societies to supply most of the papers used in that number of THE JOURNAL. This project was originally adopted to secure scientific material for THE JOURNAL. The annual meetings and various county meetings, while giving us much material, were not enough to fill the pages of THE JOURNAL.

In many states, securing original articles for their journals is still a problem, this being stressed in a Panel Discussion at the Interim Conference of State Medical Journals in Lexington, Kentucky, October 15 and 16, 1960, with 27 states represented and 79 registrants.

THE JOURNAL of the Michigan State Medical Society was established in September 1902 and has been published uninterruptedly making this December 1960 number chronologically, number 700.

The numbers of THE JOURNAL published this year have continued the policy of past years.

The January number for several years has been devoted to "Heart" and this year the theme was "Congestive Heart Failure," sponsored by the Michigan Heart Association, John G. Bielawski, M.D., securing most of the papers. This number constituted three sections, the scientific section, the proceedings of the 1959 House of Delegates, and a listing of the various committees.

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The February number was devoted to "Rural Health," featuring the AMA National Conference on Rural Health held in Grand Rapids.

The March JOURNAL was dedicated to the memory of L. Fernald Foster, M.D., who served the State Medical Society as Secretary for over 23 years. We have received many compliments on this number from all over the country.

"Cancer Control" was the topic for the April number with Gerald S. Wilson, M.D., serving as the coordinator, selecting the scientific articles and also making suggestions for the cover.

S. E. Chapin, M.D., assisted in securing outstanding editorials and papers for the May JOURNAL and helped to present a completely new concept in the study of Aging and the problems of older people. Plans suggested by the medical society in the April Conference were detailed in this number and have helped to stimulate the American Medical Association's concept that older people should not be retired, but their skill and knowledge should be used—even to the extent of developing new areas of activity.

As for a dozen years, the June number was given over to Michigan Medical Service, which was celebrating twenty years of service. The material for this number was developed with the aid of the staff of Michigan Medical Service and especially MMS President G. Thomas McKean, M.D., and Executive Vice-President L. Gordon Goodrich.

The Annual Session number, July, contained programs for the September meeting. The cover carried a picture of the 1959 House of Delegates in action.

The August number of THE JOURNAL, as for many years, was devoted to one of the County Medical Societies, this year the Kalamazoo Academy of Medicine. In addition to pictures of the four Kalamazoo hospitals, the cover contained also a picture of the far-famed Kalamazoo mall, the first permanent mall in the country. Robert D. Warnke, M.D., was of invaluable assistance and deserves much credit for securing the original articles and editorial material. There was a second section to this August number, the Membership Directory.

Mental Health was the subject of the September number, and Robert W. Waggoner, M.D., of Ann Arbor, assumed the editorial assistance job. He and his committee spent many hours going over the material, aiding in the editing, and supplying editorials and cover suggestions.

M. L. Lowrie, M.D., and Fred W. Whitehouse, M.D., coordinated in securing material for the October Diabetes number. They also produced a couple of very timely scientific editorials.

For many months, we had planned to use the November number as an introduction to our new headquarters building, but two strikes and other postponements delayed construction so long that this number had to be postponed. The Michigan Heart Association had been hoping they could move its special issue up to November, so that was accomplished this year. Doctor Bielawski, M.D., again supplied much of the material. The November number was smaller in an effort to get THE JOURNAL back on printing schedule. The Council authorized a reduction in pages, the use of only scientific papers, necessary editorial material, and the advertising.

For many years, the preliminary programs for the March Michigan Clinical Institute have been carried in the December number. Late in October, it became evident that this material would not be ready and it was therefore decided to postpone the MCI number until January. Child Welfare and Mental Retardation was originally scheduled for January 1961, but was then shifted to December 1960. R. D. Heavenrich, M.D., had arranged for several papers for the January number, and we used as many of those as could be obtained at this time, together with papers already on hand. Therefore this is a premature forceps delivery. A number of the papers previously planned could not be secured in the foreshortened time, but will be used at a later date. We appreciate the cooperation and understanding of Dr. Heavenrich in our effort.

We wish to thank all of these assistants throughout the year for their wonderful co-operation in producing these various numbers.

The House of Delegates

As the years go by, we marvel more and more at the democratic procedures through which the Michigan State Medical Society conducts its affairs. We have always contended that given time and opportunity, the medical profession will solve its problems and will bring to its public not only the best and most modern medical care but also socio-economic protection.

For many years, Blue Shield problems have attracted the attention of Council committees, House of Delegates committees and many other groups. Surveys were made, studies conducted, committee reports drawn up, and the House of Delegates in 1957, adopted a "set of principles." It instructed The Council and Michigan Medical Service to produce plans for health and medical service using the relative value theory and conforming to the demand that policies have three levels of coverage. These policies were developed using the best consulting actuaries. They were put into operation but dissatisfaction arose in the profession.

In 1959, the House of Delegates came through with an attempt at a solution of the problems. They changed many concepts, shortened the terms in the

MMS Board of Directors and instructed that a $6,500 ceiling program be developed. When the House adjourned in September 1959 most everybody was feeling content. A serious effort had been made to preserve the pre-payment theory for supplying medical services.

Some months later when practically all of the original $2,500 and $5,000 contracts had been converted into the M 75 group, financial difficulties and dissatisfaction again developed. Prospects for the September 1960 House of Delegates again seemed to spell trouble. Several groups including the National Blue Shield made studies and offered resolutions to the 1960 House of Delegates which were referred to one reference committee.

It was evident that mistakes had been made in the estimation of usage and costs. Also the State Insurance Commissioner had three times refused to grant the increased rating asked for in order to make the program work. The reference committee brought in another marvelous report endorsing the M 75 program as it was then working except for certain changes which must be made, advising the rejection of the proposed M 65 program, but suggested further study.

The House suggested that not more than two members of The Council be on the Michigan Medical Service Board. Seven new members were elected to the MMS Board, four representing the public. As a matter of fact, right now there is only one member of The Council on this Board. There are several who are past members of The Council.

We cannot help but feel that the problems of Michigan Medical Service can be solved if the members of the Medical Society, their officers and delegates are allowed to exercise their judgment. There is a feeling, however, that the particular political aspects of this year have had something to do with these troubles. In June, the State Insurance Commissioner, not believing it to be of best interest at that time, refused to allow a full increase of 19.25 per cent which MMS consulting actuaries said would have solved MMS difficulties.

Michigan Medical Service must now use up all of its reserves and skimp in every way possible if it carries out the orders of the Insurance Commissioner. The Commissioner, in writing his decision, recognized that half the population of Michigan depends upon MMS for its medical services, yet refused to grant the essential relief. He suggested that medical service might price itself out of the reach of subscribers. He should consider what would happen to the subscriber if Michigan Medical Service went out of existence. The price range for far too many of our citizens would probably throw them onto state relief.

J. J. Coury, M.D., New Council Member

Dr. J. J. Coury was born in Wheeling, West Virginia, in 1921 and was graduated from the Wheeling High School. He received his B.S. degree from Washington and Jefferson College and his M.D. from Western Reserve University in 1945.

He interned at Harper Hospital 1945-46, then entered the Army Medical Corps until 1948. He then took his surgical residency from 1948-52 at Harper Hospital and also a surgical residency at Children's Hospital in 1950.

In 1953, he was a Diplomate to the American Board of Surgery and in 1954 a Fellow of the American College of Surgeons. Vice Chief of Staff at Mercy Hospital in Port Huron and Chief of Surgery at Mercy Hospital 1957-60. He is Chairman of the Surgical Audit Committee and Credentials Committee, Port Huron General Hospital and a delegate of the St. Clair County Medical Society, 1958-60.

He is a member of the Rotary Club, Torch International, Community Chest and also Haymann Honorary Medical Society, Western Reserve University, Detroit Surgical Society, (Associate 1950-2), Detroit Academy of Surgery, St. Clair County Medical Society, Michigan State Medical Society, American Medical Association, and Association of Railway Surgeons.

He married Doris May Arner, daughter of Dr. Don C. Arner, Three Rivers, Michigan, in 1945, and is the father of three children—Jane Ann, John A. and Thomas A. Coury.

Knowledge and Wisdom

Knowledge and wisdom far from being one
Ofttimes have no connection.
Knowledge, a rude unprofitable mass,
Dwells replete in heads filled with thoughts of other men,
Wisdom in minds attentive to their own;
'Til squared and smoothed and fitted to its place
Doth but encumber whom it seems to enrich.
Knowledge is proud that he knows so much;
Wisdom is humble that he knows no more.

—William Cowper

EDITORIAL OPINION

Fluoridation

Saginaw County Bulletin, October, 1960

The fluoridation question is again before us. Certainly, there has been no more controversial medical subject before the public in many a year. Unfortunately, I must say before the public, where it has slipped. However, this is not quite so controversial when it is discussed with the medical and scientific professions. Fluoridation is no longer an experimental process as some uninformed people would like the public to believe. The first fluoridation project was in 1945. Over 8,000 papers have been written on the subject. So convincing has been the evidence that every—and I repeat—every authoritative scientific organization which has studied the data has concluded that the research evidence related to fluoridation is much more extensive and conclusive than that accumulated on most health procedures. Every reputable medical and scientific organization that has considered the question has endorsed it.

Why, then, is there such apathy and lack of acceptance of this public health measure (and this includes some doctors)? How can such a minority of lay people with no scientific background, influence the public against a public health measure that has so much proof behind it? First of all, this minority group is quite dedicated and they are untiring workers. Secondly, they are not beyond using every untruth, misquote and outright lie that is available to them. The nature of the subject itself leads to their support.

If we examine the factors which appear to influence the layman in his decisions on disease, we find that he will not take any voluntary health action until he has a relatively high degree of internal readiness. This is influenced by: (1) The individual must feel susceptible —he must feel that the disease will hurt him in some way. For the majority of the voting public, this, then, is something which is not going to affect them. (2) The individual must feel that the disease will be severe if he does acquire it. In other words, he must be afraid of it. (3) He must believe that the health measure will be effective and beneficial in preventing and alleviating the disease—again at the age of 50 it is not going to be too helpful. So this leaves us with a large number of voting people who feel that they themselves are not going to be helped, and it is these people who can be so easily swayed against the matter if there is any suggestion of controversy at all. . . .

All this public apathy and suspicion does not detract from the fact that this is a public health matter, as much so as is preventing polio, smallpox, diphtheria, et cetera. Though not fatal, it still is a disease that can only be successfully eliminated to some extent by fluoridation.

It is vexing and difficult to convey the facts about any scientific subject to the lay population. Any type of public declaration, statement or meeting, seems only to add fuel to the anti-fluoridationists.

It is up to the doctors to use the only effective way to promote this and that is by personal contact with individuals and very small groups where some form of intelligent conversation can be used. If we support this quietly but firmly, and 100 per cent, then we have a good chance of passing fluoridation.

—R. Jarvi, M.D.

Let's Not Take Blue Shield for Granted!

National Association of Blue Shield Plans

We live in tumultous times—when the pace of political history and social change seem to have taken on jet propulsion, along with our rockets and planes.

And, though even our oldest Blue Shield Plans are scarcely 21 years old, they have become such an accustomed part of our medico-economic landscape that many of us—especially those who were not in practice when these Plans were created—already tend to take them for granted. Indeed, one hears too frequently that Blue Shield is "just another insurance company."

This casual remark misses a rather vital point—vital not only to the security of the Plan but to the future of medicine's free enterprise economy. For there are a number of important differences between Blue Shield and the insurance organizations in the field.

Perhaps the basic difference is that Blue Shield, unlike its commercial competitors, is not an end in itself, but only a means—a mechanism set up by doctors and patients to make it easier for patients to pay for medical care and to facilitate the doctor's job of providing needed medical care to his patients. To an insurance company, the business is an end in itself. To us, Blue Shield is only an instrument designed to help doctors and patients meet mutual responsibilities.

To an insurance company, a claim payment is a "loss"; to Blue Shield, a claim payment is a benefit—fulfilling the sole purpose of its existence. Blue Shield is run by doctors and public representatives for the benefit of the community. It's the one and only nationwide prepayment program whose medical functions are guided and controlled by the medical profession, for the single purpose of helping physicians the better to serve our patients.

No, Blue Shield is *not* "just another insurance company." It is the main bulwark of private practice in America—our one strong shield against the threat of a state-controlled medical system.

Report of 1960 White House Conference on Children

By Robert H. Heavenrich, M.D.

The President of the United States summoned the 1960 conference on Youth and Children in Washington. At the invitation of the Michigan Committee the undersigned was designated a delegate for the Michigan State Medical Society. The purpose of the conference was "to provide opportunities for youth and children to realize their full potential for creativity, in freedom and dignity." The basic theme was the child in the changing world and the effect of those changes on the child.

There were over 7,000 delegates to the conference from every State in the Union, including 1,400 youths. In addition, there were approximately 500 visitors from abroad. In all, there were about 200 doctors. Michigan Medicine was represented by Drs. James Graves, Goldie Cornieluson, Irving Posner, and Ralph Robinowicz, who was one of the forum speakers.

Every phase of child life and welfare was discussed. The conference was divided into five theme assemblies, each of which was divided into 15 forum groups. A democratic process was followed and no pressure groups exerted any appreciable influence. The tone of the meeting was on the highest level, as everyone had but one interest, the welfare of the child. Physical and emotional health were of course major concerns.

Prior to the meeting in Washington, some thousand people in the State of Michigan participated in preparing information on the status of child welfare in this State. Of particular interest to all physicians are the reports of the State Health Department, the Interdepartmental Committee on Children of the State Government, and the final summation by the Michigan Committee for the White House Conference under the leadership of Miss Clarice Freud, chairman of the Michigan Youth Commission, and Sam Rabinovitz, executive secretary. This latter document consolidated and summarized all of the reports that were submitted to the committee. Carefully outlined in this manual are the potential health needs of the children in this State.

In addition to this material, each delegate received more than 7,000 pages of reference material. Of particular interest to physicians in Michigan was a series of three volumes of essays on "Our Nation's Children" which depicted historical and social dynamics in our culture and their effect on children.

There were some 1,600 recommendations from the conference. Each workshop reported to its parent forum, each forum voted on only those recommendations before it so that each delegate voted on only one-fifth of the total recommendations.

At the present time the National Committee on the White House Conference is correlating all the recommendations. Many of these will add tremendous weight to programs already started in Michigan.

NATIONAL AND WORLD 1863

The State Committee is planning conferences to set up priorities for follow-up to promote improvement in child welfare, for only in subsequent action can the value of such a conference be measured.

It was most gratifying to see the fine organization and reports of the work in Michigan, our very high standards in comparison to other states in reference to child physical and emotional health. Recognition was repeatedly given to the Medical profession, per se, and to the Michigan State Medical Society for its leadership, co-operation, and sincere interest in child welfare. The State Society is obviously most co-operative with the many organizations dealing with child welfare, and has set standards and high goals for the individual practitioners. We of the State Medical Society can be justly proud, though never complacent.

Congressman Mills Predicts Tax Hike Resistance

Chairman Wilbur Mills of the House Ways and Means Committee, a Democrat, made this statement, in part, after passage of the Mills Bill:

"We are not discussing small matters when we discuss amendments to the Social Security Act; we are discussing terrifically large matters because of their application to so many people. It is essential . . . that we keep this system as actuarily sound as possible.

". . . I do not know the point at which people will begin to have great resistance to increases in Social Security taxes, but I think we are going to find an unwillingness on the part of a great number of people to see this tax go higher. . . . Until this full tax actually goes into effect, in my opinion, we should not bring about, as part of the Social Security system, great changes which would require great increases in scheduled rates of tax."

Seven Members Appointed To White House Conference

Seven MSMS members are among the 72 Michigan delegates appointed by Governor Williams to the White House Conference on Aging, January 9-12, 1961.

The Michigan doctors of medicine who were selected included two members of the Michigan Commission on Aging—Albert F. Heustis, M.D., Lansing, director of the Michigan State Department of Health, and Harry Zemer, M.D., Lapeer, MCA representative from the Michigan Health Council. Also named was A. Hazen Price, M.D., Detroit, chairman of the MSMS Committee on Geriatrics. The other MSMS members named were Frederick D. Mott, M.D., Detroit; Max L. Newman, M.D., Detroit; C. J. Tupper, M.D., Ann Arbor, and V. K. Volk, M.D., Saginaw.

Another MSMS member involved in the White House Conference is Frederick C. Swartz, M.D., Lansing, chairman of the AMAM Committee on Aging and a member of the Conference Advisory Committee.

Speak at AMA Conference

Four Michigan doctors of medicine spoke at the Second National Conference on the Medical Aspects of Sports, sponsored recently by the AMA in Washington.

Carl E. Badgley, M.D., Ann Arbor, member of the AMA Committee on the Medical Aspects of Sports, presided at a panel discussion on "On-Field Care of the Football Player."

Robert E. Anderson, M.D., Flint, was leader for a sectional meeting on the "Health of the High School Athlete"; he also spoke at a symposium on "Conferences on Protecting the Health of the High School Athlete."

Robert A. Moore, M.D., Ann Arbor, was a luncheon speaker on the "Psychological Factors in Athletic Injuries."

Participating on a panel about "Protecting the Boxer" was E. S. Gurdjian, M.D., of Detroit.

AMA House of Delegates Actions in Brief

A scholarship and loan program for medical students, the status of foreign medical graduates, an AMA membership dues increase, the expansion of voluntary health insurance, health care for the aged and new developments in polio vaccine were among the major subjects acted upon at the American Medical Association's Fourteenth Clinical Meeting held in Washington, D. C., November 28–December 1.

Named as 1960 General Practitioner of the Year was 44-year-old James T. Cook, M.D., of Marianna, Florida.

Speaking at the Monday opening session, E. Vincent Askey, M.D., of Los Angeles, AMA President, called upon the delegates to support not only existing AMA programs but also expansion of new programs necessary to meet the challenges of society. Dr. Askey assured the new administration in Washington of cooperation whenever and wherever possible but emphasized that the AMA will not change its policies merely for the sake of conformity.

Total registration reached 8,170, made up of 3,940 physicians and 4,239 guests.

Auxiliary to Equip Headquarters Lounge

A large meeting room in the new MSMS headquarters will be dedicated to the Woman's Auxiliary of the MSMS, which contributed $4,000 toward the furnishings and equipment.

The check was accepted by The Council in the name of all members of the Michigan State Medical Society and the appreciation of the Society was expressed to the Auxiliary.

Council Chairman H. J. Meier, M.D., said in a letter to the 1959-60 Auxiliary President, Mrs. Harold Gay, of Midland, "Please convey to each of your members the sincere appreciation of the Michigan State Medical Society for this significant contribution of the Auxiliary. As always, your members are first in line to offer assistance to the MSMS in any program or project that is undertaken. Thank you for this additional example of your continuing interest in the progress of Michigan medicine."

The meeting room is on the first floor of the new building and will hold up to 150 persons for large sessions. It will be a multi-purpose room adaptable to many situations. A lounge area in one end will serve for small meetings and tables and chairs will be provided if a luncheon or dinner is desired. The room adjoins a small kitchen area which will be used by caterers to facilitate serving and final food preparation.

The Auxiliary decided to make a contribution to the new headquarters soon after construction began and elected to furnish and equip the Meeting-Lounge when the interior specifications were drawn up.

Health Council Prints Brochure about Placement

A colorful, new brochure on the three placement services conducted by the Michigan Health Council is available now for distribution.

The brochure explains the procedures in the operation of the M.D. Placement, Dentist Placement and Veterinary Placement Services of the Health Council. It is used primarily to give the details of the Services to doctors of medicine, dentistry and veterinary medicine and to people in Michigan communities who seek assistance.

The greatest distribution comes in the fall of the year when seniors from the two medical, two dental and one veterinary medicine school are contacted and offered the free placement services. At the same time all M.D.s interning in Michigan hospitals are contacted—except those already contacted as senior medical students in the Michigan schools.

ANCILLARY 1865

Joins Health Council

The Michigan Health Council has accepted the Michigan Cancer Foundation as a voting member.

The Council has a membership of 64 health and welfare agencies throughout the state of Michigan in approving, formulating and developing programs of health and sociological benefit to the public.

Elevate Mr. Baab

The Southeastern Michigan Division of the American Cancer Society, has named Tom Baab as its executive director. He had been director of public education and information during the past year. He will replace a national representative of the Society, John L. Swan, who has been with the Southeastern Michigan Division on temporary assignment as executive secretary.

Tells Cancer Story

The American Cancer Society was awarded first prize trophy at the Michigan State Fair for an exhibit which showed how the Society brings the doctors and public of Michigan the world's knowledge and experience in cancer control.

A global display presented a broad perspective on the cancer problem and the work contributed by 2,000,000 Cancer Society volunteers who are striking back at the disease through a balanced nationwide attack in education, service and research.

Re-Elected AAMA Officer

Miss Hallie Cummins, Caro, was re-elected treasurer of the American Association of Medical Assistants at the fourth AAMA national convention at Dallas.

More than 400 women employed as nurses, medical secretaries and medical assistants in physicians' offices attended the three-day educational program and business meeting. The American Association of Medical Assistants now has more than 9,000 members in 28 states.

A registered medical librarian at the Caro State Hospital, Miss Cummins has served as president of the Saginaw County Medical Assistants chapter and the Michigan State Medical Assistants Society. She has held office as a director of AAMA and has completed one term as treasurer.

Wayne Exhibit Wins

The first gold medal given since 1952 by the American Roentgen Ray Society was presented at the 61st annual meeting of the Society in Atlantic City to a medical exhibit prepared by nine doctors associated with Wayne State University College of Medicine and the Grace and Detroit Memorial hospitals.

The exhibit covers experiences in dealing with patients having cerebrovascular disease. Co-authors are: Drs. E. S. Gurdjian, D. W. Lindner, W. G. Hardy, L. M. Thomas, M. Croll, S. J. Figiel, J. B. Lofstrom, J. E. Webster and J. L. Wheland.

Symposium on Blood Soon

The Ninth Annual Symposium on Blood will be held at the David Whitney House, Detroit, January 20 and 21. The program will provide ample time for the audience to discuss contributions of the invited speakers. Arrangements have been made to publish abstracts of the papers in *Thrombosis et Diathesis Haemorrhagica.*

Begin Kresge Hearing Institute

A plan to construct the world's largest medical laboratory devoted exclusively to research on hearing has been launched at the University of Michigan Medical Center. The $1,750,000 facility will be started with an initial grant of $200,000 from the Kresge Foundation of Detroit. To be known as the Kresge Hearing Research Institute, it is expected to be completed in the academic year 1962-63. Present plans call for a 5-story wing to be added to the existing Kresge Medical Research Building.

In announcing the newest award, Stanley S. Kresge said, "Any progress in man's fundamental ability to understand and correct a single hearing disorder literally will have a worldwide impact. . . . We extend our heartfelt prayer that this Institute, and the men and women who will labor here, will help produce benefits of great and widespread significance in the preservation of mankind's precious gift of hearing."

Orthopedic Surgeons Organize in State

The Michigan Orthopedic Society was organized at Boyne Mountain Lodge this autumn when 34 orthopedic surgeons from all sections of the State met and adopted a constitution and by-laws.

The following officers were elected—President: Donald Charles Durman, M.D., Saginaw; President-Elect: Victor S. Mateskon, M.D., Petoskey, and Secretary-Treasurer: Hira E. Branch, M.D., Flint.

Our Future In Politicians' Hands

Senator John F. Kennedy's elevation to the Presidency, the re-election of Michigan's U. S. Senator Patrick V. McNamara, and the extent to which the Democratic party buttressed its strongholds in political office in this state all point to continued wrangles in the Congress and the State Legislature over health care for the aged; in fact, probably health care for the entire population.

Although it is impossible to predict how the Democrat/Republican balance in Washington will be upset by conservative/liberal splits in both parties, here is how the voting went:

Republicans picked up 24 more seats in the national House of Representatives and 2 in the Senate. However, Democrats still held a numerical majority in both chambers, 260 to 176, and 64 to 36, respectively.

A rigid seniority system in the Congress leaves most of the important committee assignments and chairmanships in the hands of patriarchal southern conservative Democrats. Their past tendencies to side with their Republican colleagues against Forand-type amendments to the social security law probably will continue to chafe President Kennedy and his ultra liberal Congressional confreres.

In spite of the fact that the Mills Bill providing help for the needy elderly, was passed this year, and that medicine's position in Congress seems to have been bolstered numerically, the pressures for socialized medicine nationally will be greater than ever.

In the State Legislature the Republican party maintained its 24-12 margin in the Senate and took a 56-54 lead in the House. Picking up two seats formerly held by Democrats, while losing only one of its own to them, it broke the former 55-55 stalemate, which for two years has brought payless paydays and near bankruptcy to Michigan. Five freshman Senators and twenty-one new Representatives will be sworn into office on January 11, when the Legislature convenes for an expected five-month session.

With the state administrative departments firmly in the hands of the Democratic party and the Legislature controlled by the Republicans, only the most meritorious legislation is expected to survive.

LEGISLATIVE 1867

MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

Hospital and Medical Facilities

Construction of facilities for the chronically and mentally ill is a more pressing need in Michigan than general hospital construction. According to the annual revision of the State Plan for Hospital and Medical Facilities Construction, Michigan has 75.4 per cent of its estimated need for general hospitals met by existing facilities, but only 33 per cent of the number of beds needed for care of the chronically and the mentally ill. The state plan is the basis on which federal funds are allocated to hospitals and other facilities under the Hill-Burton program.

While Congress appropriated $185 million for the Hill-Burton program, Michigan's allotment for 1960-61 is a little less than last year.

Michigan's allotment:

PURPOSE	*1959-60*	*1960-61*
For construction of general hospitals, psychiatric units, public health centers, schools of nursing	$5,095,852	$4,957,135
For construction of		
skilled nursing homes	331,462	322,220
rehabilitation facilities	331,462	322,220
chronic disease hospitals	203,291	197,581
outpatient facilities	203,291	197,581
Total	$6,165,358	$5,996,737

Although the state plan shows the need for acute care hospital beds to be substantially satisfied in many areas, there are 26 hospital service areas of the state out of a total of 75 which fall below the statewide average for available beds in fire-resistive structures. Areas most in need of additional general hospital construction include Newberry, Bad Axe, Monroe, Ludington, Stambaugh, Northeast Detroit, Tawas City, Muskegon, and Cass City.

The state plan estimates that there should be 34,011 general acute care hospital beds to serve Michigan's population. Now available or under construction are 25,661 beds housed in fire-resistive structures and 4,133 beds in buildings considered unacceptable for long range planning. Currently under construction are some 1,660 beds, of which 1,029 will be a net addition to bed supply. Some 1,050 beds were opened to patients in 1959.

The progress made during the past decade has provided adequate hospital facilities in most areas of the state, and enabled our hospitals to keep up with population growth and even to cut into the backlog of facilities needing replacement. In 1948, existing beds in acceptable structures represented only 52 per cent of the estimated need for acute care facilities. Of the general hospital construction which has occurred since then, about half has received federal assistance under the Hill-Burton program.

Chronic Disease Facilities

The state plan conservatively estimates a need for 15,840 beds for care of the chronically ill in chronic disease units and skilled nursing homes. Skilled nursing homes are defined as those in which nursing services are rendered under the direction of a full-time graduate nurse registered in the state of Michigan. Although there are now some 15,000 beds in licensed nursing homes, county medical care facilities, and other units providing long-term care, only 5,280 of these beds are in structures which are fire-resistive and in which care is under the supervision of a fulltime graduate nurse registered in the state of Michigan.

There are at present 43 counties in Michigan which either have no facilities for skilled nursing home care, or none in fire-resistive structures.

These counties, which will have first claim on federal funds for skilled nursing home construction, are in order of priority: Luce, Otsego, Baraga, Ontonagon, Presque Isle-Montmorency, Newaygo, Gogebic, Ionia, Wexford-Missaukee, Crawford-Oscoda-Roscommon, Sanilac, Arenac-Gladwin, Clare, Mason-Lake, Gratiot, Oceana, Iosco-Ogemaw, Mackinac, Van Buren, Emmet, Montcalm, Lapeer, Alpena-Alcona, Hillsdale, Clinton, Eaton, Chippewa, Livingston, Ottawa, Monroe, Lenawee, Bay, Berrien, Jackson, and Midland.

Psychiatric Units

There has been a long range goal under the Hill-Burton program to make available psychiatric services for short term intensive treatment in every major urban community and in every 200 bed hospital in the state. Fifteen general hospitals in Michigan now have psychiatric units in operation or under construction. The state plan estimates 4,193 beds are needed to provide this type of service while there are in existence for psychiatric care in general hospitals only 1,492 beds in fire-resistive structures. In addition to psychiatric units in general hospitals, the state plan has a program for possible federal assistance for a 300-bed, community-oriented state-operated psychiatric center and special units for the care of disturbed children.

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Total unsaturated	70-75%
Palmitic, stearic and myristic glycerides (saturated)	25-30%
Phytosterol (Predominantly beta sitosterol)	0.3-0.5%
Total tocopherols	0.09-0.12%

Never hydrogenated—completely salt free

Obstetrical Brevits

(This column is sponsored by the Michigan Society of Obstetrics and Gynecology)

Staphylococcus Aureus in Maternity and Nursing Units

Experience with *Staphylococcus aureus* indicates that this organism is probably present in most, if not all, maternity and nursing units and that its presence represents a problem of considerable magnitude. Experience also indicates that this microorganism has been present in our hospitals for many years. The reason why *S. aureus* has assumed this position of importance among bacterial pathogens has been the subject of much discussion in recent years.

There are factors associated with maternal or newborn infections that are common to all classes of patients. It is true that a susceptible patient must be exposed to and infected by a pathogenic strain of *S. aureus* before staphylococcal disease can develop. Reports from many workers have shown that there is considerable variation in susceptibility of individuals to staphylococci.

Some patients are so susceptible that they develop overwhelming infections and succumb quickly to their infections. Resistance among patients can be altered by trauma, both surgical and accidental, by systemic disease, age, medications and a variety of less well-defined factors. The great variability in resistance to infection also suggests that immunity must play a part.

It is well known that some persons are completely refractory to colonization and infection, while other persons, designated as carriers, are susceptible to colonization but do not develop overt infection. A definition of the state of infection in nasal carriers must be qualified because many carriers have low-grade infections of the nasal passages or accessory nasal sinuses.

Modern laboratory practice allows us to identify *S. aureus* in different specimens and to determine many characteristics which permit identification of different strains or types. All forms of staphylococci are not pathogenic. Among the pathogenic forms, there is a wide range of disease-producing ability. It is desirable to obtain complete identification (including phage typing) of *S. aureus* isolated from hospital infections so that proper epidemiologic studies can be undertaken by the hospital infections committees. However, it should be emphasized that obtaining bacteriophage typing of a culture is not the solution to the problem. It is simply another piece of information to be used in evaluating the management of a case.

The nasal carrier of *S. aureus* has been the subject of many investigations. A recent survey of a general population group conducted at the Michigan Department of Health has shown that about 34 per cent of persons may be carriers. It is of considerable interest that 19 per cent of persons studied were shown to be permanent carriers but that only one person in the group carried the well-known 80/81 type. The full significance of this relationship is not known but it suggests that nasal carriers of *S. aureus* are relatively common in the general population but that carriers of the 80/81 type are uncommon.

One interesting observation was the fact that most of the permanent carriers were shown by clinical and radiological studies to have some obstructive disease in their nasal passages. In most instances, there was associated chronic infection present such as rhinitis, tonsillitis or sinusitis. The importance of the patient's being admitted to the hospital as a nasal carrier has a definite bearing on control activities established by a hospital to control the spread of infection. The importance of the adult nasal carrier in the nursery as a possible source of infection has been well established.

It has recently been reported that some infants who carry *S. aureus* in their noses and who also have certain respiratory viruses in their nasal passages, excrete large numbers of pathogenic staphylococci in their respired air. If the organism excreted is highly pathogenic and the nursery is crowded with newborn infants, the possibility of additional infections in the nursery is greatly increased. Therefore, it is important that crowding in a nursery be prevented and that the incidence of infants carrying *S. aureus* in the nursery be known.

A recent survey of three-day-old infants in a Michigan hospital conducted over a period of one year showed that the carrier rate varied from 10 to 45 per cent of the total daily population. At no time during the survey were all babies found to be free of *S. aureus*.

Many physicians and hospital administrators have attempted to determine how staphylococci get into our hospitals. Available information suggests that at least three classes of people continually introduce staphylococci into the hospital environment; these classes may be identified as visitors, patients and hospital personnel. The visitors must be considered a source as discussed. However, most visitors do not carry the so-called hospital strains with great frequency. If the visitor has recently been a hospital patient, his chances of being a carrier are much greater than those of a person with no hospital exposure. Therefore, patients

(Continued on Page 1874)

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Friedman, A. P., and Merritt, H. H.: J.A.M.A. *163*:1111 (Mar. 30) 1957.

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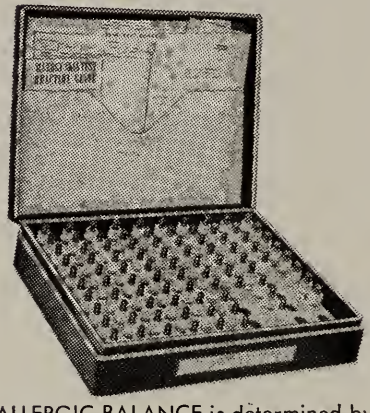

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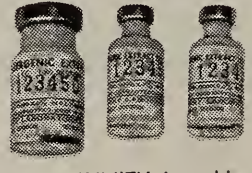

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(Continued from Page 1872)

both present and former are potential sources of *S. aureus*.

Recent work published in England has shown that a person carrying *S. aureus* in his nose has a greater chance of developing postoperative infection than the person who is free of the organism. In addition, highly virulent strains of *S. aureus* were found in the noses of infected carriers more frequently than were strains of low virulence.

It is well demonstrated that all classes of hospital personnel may carry *S. aureus* and that the carrier rate among the professional staff bears a relationship to the infection rate in the hospital. Pathogenic staphylococci are introduced into the air from nasal carriers as well as persons with infection. It may be possible to prevent some infection by preventing the establishment of the nasal carrier state either in the adults or newborn infants.

—NORMAN D. HENDERSON, M.D.
Lansing

This paper was presented by Dr. Henderson, coordinating physician for the division of laboratories of the Michigan Department of Health, at a meeting of the MSMS Maternal Health Committee in 1960.

AMA House of Delegates Resolutions

Voluntary Health Insurance

A most important and significant set of resolutions was adopted at the Clinical Session of the American Medical Association, Washington, D. C., November 29.

In place of a Board of Trustees report and three resolutions, the House adopted the following substitute resolutions:

WHEREAS, It has been widely recognized that voluntary health insurance is the primary alternative to a compulsory governmental program; and

WHEREAS, The public has shown its confidence in this voluntary system; and

WHEREAS, Current social, political and economic developments compel a new and revitalized effort to make voluntary health insurance successful; and

WHEREAS, The American Medical Association has consistently pledged itself to make available the highest type of medical care; therefore be it

RESOLVED, That the House of Delegates direct the Board of Trustees and the Council on Medical Service to assume immediately the leadership in consolidating the efforts of the American Medical Association with those of the National Association of Blue Shield Plans, the American Hospital Association and the Blue Cross Association into maximum development of the voluntary, non-profit prepayment concept to provide health care for the American people; and be it further

RESOLVED, That similar leadership be undertaken to coordinate the efforts of private insurance carriers through conferences with their national organizations; and be it further

RESOLVED, That, where feasible, efforts be made to cooperate with representatives of other types of medical care plans, other professional groups, and representatives of industry, labor and the public at large.

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Kestler, O.: Conservative Management of "Low Back Syndrome", J.A.M.A. 172: 2039 (April 30) 1960.

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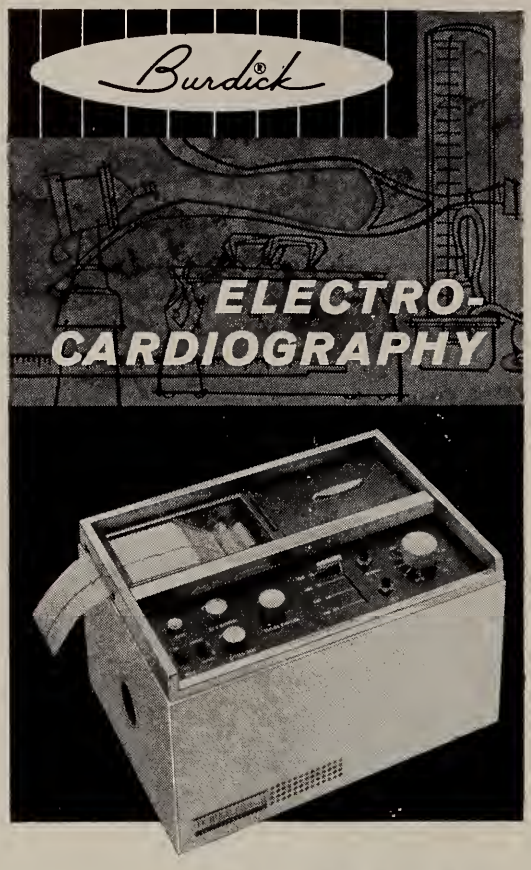

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COMMUNICATIONS

Wilfrid Haughey, M.D., Editor
The Journal—Michigan State Medical Society

Dear Dr. Haughey:

Qualified physicians in the Greater Detroit area may now arrange to admit patients directly to Detroit Memorial Hospital for care requiring special services not available in their regular hospitals. This opportunity is provided by newly created "special courtesy" staff privileges, announced today by Detroit Memorial Hospital's Board of Trustees as a novel and positive step to broaden the scope of facilities available to physicians of the area and to eliminate public criticism of costly duplication of special facilities in hospitals.

Specifically, a physician who is a member of the Wayne, Macomb, Oakland or Monroe County Medical Societies, and who holds a staff appointment at a J.C.A.H. accredited hospital, will have the opportunity of becoming a "referring physician" on the newly created special courtesy staff at Detroit Memorial Hospital. Appointments will be made upon review and approval of written application and payment of special staff dues of $5 annually. Thereafter, the physician will be privileged to admit patients for specialty care which is not available or comparable at his primary hospital, to visit his patient and follow his progress, and to write such orders and perform such procedures as may be indicated by prescribed privileges and the best interests of patient care.

This new category of privileges offers several advantages to the referring physician from another hospital, explained Dr. Harold F. Jarvis, Chief of Staff, in a letter to medical society members. The referring physician will have direct access to services and facilities which otherwise may not be available for his patients' needs. Also, he will be able to maintain direct relationships with his patients and to exercise some degree of management of the total care required, particularly care of secondary ailments. Such privileges eliminate several deficiencies of the traditional referral system, some of which have been experienced by every physician. Accordingly, we believe that these newly created privileges will be valuable to many physicians in the community.

Our new privileges for referring physicians are also an answer to expressed community needs for economy in establishing and maintaining specialized hospital services.

In the face of continuing developments in modern medical technology, it is neither practical nor possible for all hospitals in the community to develop and maintain all the desirable special services. Further, criticism has been voiced in community studies and in Blue Cross-Blue Shield hearings across the nation about duplication of services and facilities in hospitals where the need arises mostly from practices which limit accessibility to a small segment of the medical profession. On both counts, logic indicates a need for practical change in medical staff appointments.

These several needs for improving the accessibility and usefulness of special services and facilities in hospitals, have been recognized and discussed in medical circles in other communities, with little or no action, according to information available from the Greater Detroit Area Hospital Council.

Our new policy is a form of *action* which attempts to pioneer a practical answer to this problem for the Detroit area, within the limited capacity of one hospital.

Franklin D. Carr, *Administrator,*
Detroit Memorial Hospital

October 7, 1960
1420 St. Antoine, Detroit 26.

Say you saw it in the Journal of the Michigan State Medical Society

Receives Lasker Award

James V. Neel, M.D., Ann Arbor, was one of seven medical researchers in the world selected to receive the 1960 Albert Lasker Award for research directly benefiting millions of human beings throughout the world.

The Award consists of an honorarium of $2,500, a gold statuette of the Winged Victory of Samothrace symbolizing victory over death and disease, and a citation.

Doctor Neel was cited jointly with Lionel S. Penrose (FRS) of the University of London, England, "for major contributions to the development of human genetics and significant findings about the effect of nuclear and other radiation on human beings and their offspring." Doctor Neel is chairman of the Department of Human Genetics at the U-M Medical Center.

* * *

MEDICAL TELEVISION SHOWS—The Michigan Health Council reports that the following topics were covered during October on the weekly Sunday morning program over WJBK-TV, Channel 2, Detroit: Health Careers, Rehabilitation, Hunting Safety, Chiropody.

* * *

NAMED CONSULTANT—Richard D. Mudd, M.D., of Saginaw, was appointed this fall as U. S. Air Force national consultant in occupational medicine. Doctor Mudd presently is medical director of the Chevrolet-Grey Iron Foundry at Saginaw.

* * *

TAKES VA POST—Robert I. McClaughry, M.D., formerly of the National Academy of Sciences-National Research Council, has been named director of medical education service for the Veterans Administration.

A former assistant dean of Wayne State University's College of Medicine, Doctor McClaughry has been associated in a professional capacity with the National Academy in Washington, D. C., since June, 1958.

In his new post at VA Central Office in Washington, D. C., Doctor McClaughry will co-ordinate programs making a major contribution to the trained medical manpower pool of the nation.

* * *

SPEAKS ON PANEL—Ralph S. Green, M.D., Rochester, was a member of the panel, "Evaluation of the Private Psychiatric Hospital in Community Service," at the 12th Annual Mental Hospital Institute in Salt Lake City, Utah.

* * *

DISCUSSES CANCER—Harry C. Saltzstein, M.D., Detroit, spoke before the Bay-Arenac-Iosco Counties Medical Society October 12, 1960. He discussed "Cancer of the Gastro-Intestinal Tract."

Contributions for this "News Briefs" department are invited from individual physicians, from county societies, and from other health organizations. Please direct your contributions to the Editor.

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ON EASTERN PROGRAM—Three Michigan doctors of medicine spoke at the 45th Scientific Assembly of the Interstate Postgraduate Medical Association at Pittsburgh, October 31-November 3. Stefan S. Fajans, M.D., Ann Arbor, lectured on "Hyperparathyroidism—A Frequent Unrecognized Clinical Syndrome" and also participated in a panel on "Diabetes Today: Medical and Surgical"; E. Richard Harrell, M.D., Ann Arbor, discussed "The Treatment of Superficial Fungus Infections" and Richard E. Straith, M.D., Detroit, lectured on "Plastic Wound Closure."

DETROIT MD HONORED—Traian Leucutia, M.D. *(right)*, Detroit, receives double congratulations from Harold G. Reineke, M.D., Cincinnati, O., president of the American Roentgen Ray Society. Doctor Leucutia, in addition to receiving the Caldwell Medal *(above)* as the Society's 1961 Caldwell Lecturer, was also named society's president-elect. Samuel W. Donaldson, M.D., Ann Arbor, is first vice president of the Society. The annual meeting was held at Atlantic City.

ACCEPTED AS FELLOWS—Approximately 1,175 surgeons were inducted as new Fellows of the American College of Surgeons at ceremonies closing the annual Clinical Congress.

Those admitted from Michigan were: John W. Berghuis, Adrian; Collis M. Spencer, Albion; Frederick C. O'Dell, Jr., Alpena; Homer S. Arnold, CMDR., USN, George E. Block, Earl F. Wolfman, Jr., Ann Arbor; Richard B. Asbury, Peter L. McGee, Bay City; W. John Kenfield, Benton Harbor; Robert W. Dustin, Clayton H. Gordon, Birmingham; E. James Gordon, Milton C. Hoffman, Charles Kessler, George E. LaCroix, Warren R. Moore, Addison E. Prince, Robert M.

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* * *

ELECTED—C. J. Tupper, M.D., Ann Arbor, is a new member of the board of directors of the American Association of Automotive Medicine. The association was created about three years ago by M.D.'s interested in automotive safety and research.

* * *

GRANTS TO WAYNE—Among the grants accepted recently by Wayne State University was one from the American Cancer Society for $50,531 to continue research in pulmonary cancer. Another grant was $9,740 from the Michigan Foundation for Kidney Diseases.

* * *

SCHOLARSHIPS AVAILABLE—The Michigan State Board of Alcoholism offers scholarships for the Midwest Institute of Alcohol Studies at Kalamazoo, June 18-23 and to the Yale Summer School of Alcohol Studies, June 25-July 20. The scholarships will be awarded to professional people who are in a position that lends itself to working with the problems of alcoholism or alcohol education. Applications for scholarships can be obtained by writing to the Education Director, State Board of Alcoholism, 230 North Grand Avenue, Lansing, Michigan.

* * *

M.D.'S SUGGESTED—Three MSMS members are listed as possible speakers in a new Western Michigan University booklet suggesting "Programs in Aging." The list includes A. Hazen Price, M.D., Detroit, Fredrick C. Swartz, M.D., Lansing, and V. K. Volk, M.D., Saginaw.

* * *

COMMUNITY LEADER—Marshall J. Feeley, M.D., St. Joseph, was recently re-elected President of the Twin City Child Guidance Clinic.

* * *

JOINS WAYNE—Samuel J. Levin, M.D., has been appointed clinical associate professor of pediatrics at Wayne State University College of Medicine. Doctor Levin is the director of the allergy clinic at the Children's Hospital.

* * *

PROFESSORS HONORED—Paul S. Barker, M.D., and Thomas Francis, Jr., M.D., both of Ann Arbor, were among the five professors to receive "Distinguished Faculty Achievement Awards" at the University of Michigan this fall. In addition to the citation, each man received a $1,000 cash award.

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LIST BAHAMAS CLINICS—Among the events listed on the calendar for the Annual Series of Bahamas Conferences are the following: Third Surgical Conference, December 28-January 7; Conference on Hypertension, January 8-14; Third Serendipity Conference, January 22-28; Second Allergy Conference, February 9-15; Eleventh Medical Conference, April 3-15, and Conference on Internal Medicine, April 3-May 6. Information may be obtained from Irvin M. Weshsler, Executive Director, Bahamas Conference, P.O. Box 1565, Nassau, Bahamas.

* * *

SPEAKS IN N. C.—Thomas Francis, Jr., M.D., Ann Arbor, participated in the Medical Sciences Lecture Series at the University of North Carolina. He spoke on viral infections and immunity.

* * *

VISITING PROFESSOR—Sylvester E. Gould, M.D., Detroit, served as the Claude Bernard Visiting Professor at the Institute of Medicine and Experimental Surgery of the University of Montreal in November. Dr. Gould gave three lectures—Pathology of the Heart, Trichinosis, and Medical Writing. Dr. Gould also spoke recently before the Cleveland Area Heart Society.

* * *

RECEIVES HONOR—The American Academy of Ophthalmology and Otolaryngology presented an Award of Merit to Paul L. Cusick, M.D., of Detroit, at its annual meeting. The award was in appreciation for his services in the education program.

NAMED TO STATE COUNCIL—John Scott, M.D., Traverse City, was appointed this fall as a member of the State Council on Health. The term will expire June 30, 1965.

* * *

HONORED—James J. Lightbody, M.D., Detroit, speaker of the MSMS House of Delegates, has been appointed to the five-member Wayne County Board of County Institutions. The board governs the Wayne County General Hospital at Eloise. The appointment is for a three-year term.

* * *

NAMED AT MSU—Herbert Oyer, M.D., formerly at Ohio State University Medical School, is the new director of the Michigan State University speech and hearing clinic. He also is director of the speech and hearing department of the Ingham County Rehabilitation Center.

* * *

INVITE ARTICLES—The International Academy of Proctology will award cash prizes for the best unpublished contribution on proctology or allied subjects. All entries are limited to 5,000 words and must be received no later than February 1, 1961. Entries should be addressed to Alfred J. Cantor, M.D., Executive Officer, International Academy of Proctology, 147-41 Sanford Avenue, Flushing 55, New York.

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ANNOUNCE EXAMS—American Board of Obstetrics and Gynecology announces that Part 1 Examinations (Written) will be held in various cities of the United States, Canada, and military centers outside the Continental United States on Friday, January 13, 1961. Bulletins outlining present requirements may be obtained by writing to Robert L. Faulkner, M.D., Executive Secretary, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

SUPPORTS U-M RESEARCH—Among the grants accepted by the University of Michigan Board of Regents recently was one from the Kellogg Company, Battle Creek, to establish a fund for nutrition research under the direction of H. M. Pollard, M.D., professor of internal medicine.

* * *

COMING MEETINGS—American College of Surgeons Sectional Meeting, January 16-18, 1961, Birmingham, Alabama.

Pediatrics, Obstetrics and Gynecology Problems Postgraduate Course, January 23-27, University of Michigan Medical Center, Ann Arbor, Michigan.

Annual Cardiovascular Seminar, sponsored by the Northeast Florida Heart Association, January 26-28, Prudential Auditorium, Jacksonville, Florida.

Meeting of The American Laryngological, Rhinological and Otological Society, Middle Section, January 27-28, Radisson Hotel, Minneapolis, Minnesota.

Fifteenth Annual Midwinter Seminar on Ophthalmology and Otolaryngology, sponsored by the University of Florida College of Medicine and the Miami University School of Medicine, January 29-February 4, The Americana, Miami Beach, Florida.

Conference on Handicapped Children in Michigan: Problems, Programs, and Services, February 20-21, School of Public Health, University of Michigan, Ann Arbor, Michigan.

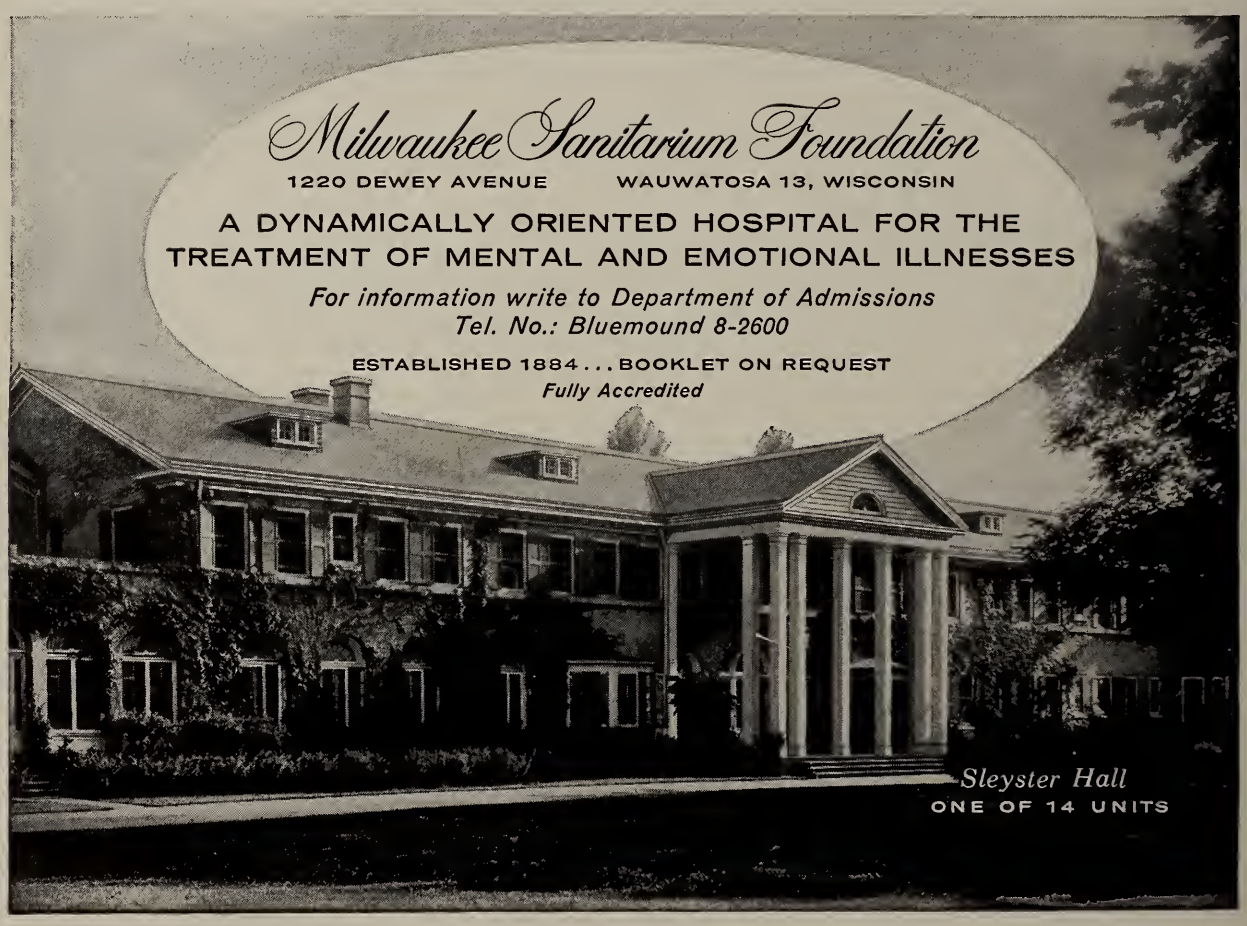
Twenty-fourth Annual Meeting of The New Orleans Graduate Medical Assembly, March 6-9, Roosevelt Hotel, New Orleans, Louisiana, Mannie D. Paine, Jr., M.D., 1430 Tulane Avenue, Room 103, New Orleans 12, Louisiana, Secretary.

Conference on Applied Epidemiology in Communicable Disease Control, March 7-10, School of Public Health, University of Michigan, Ann Arbor, Michigan.

Postgraduate course in Laryngology and Bronchoesophagology, March 13-25, The Department of Otolaryngology, University of Illinois College of Medicine, Chicago, Illinois. For information write to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12.

Institute on Newer Aspects of Public Health for Health Officers, March 27-31, School of Public Health, University of Michigan, Ann Arbor, Michigan.

Annual Convention of the International Academy of Proctology, April 12, Drake Hotel, Chicago, Illinois.



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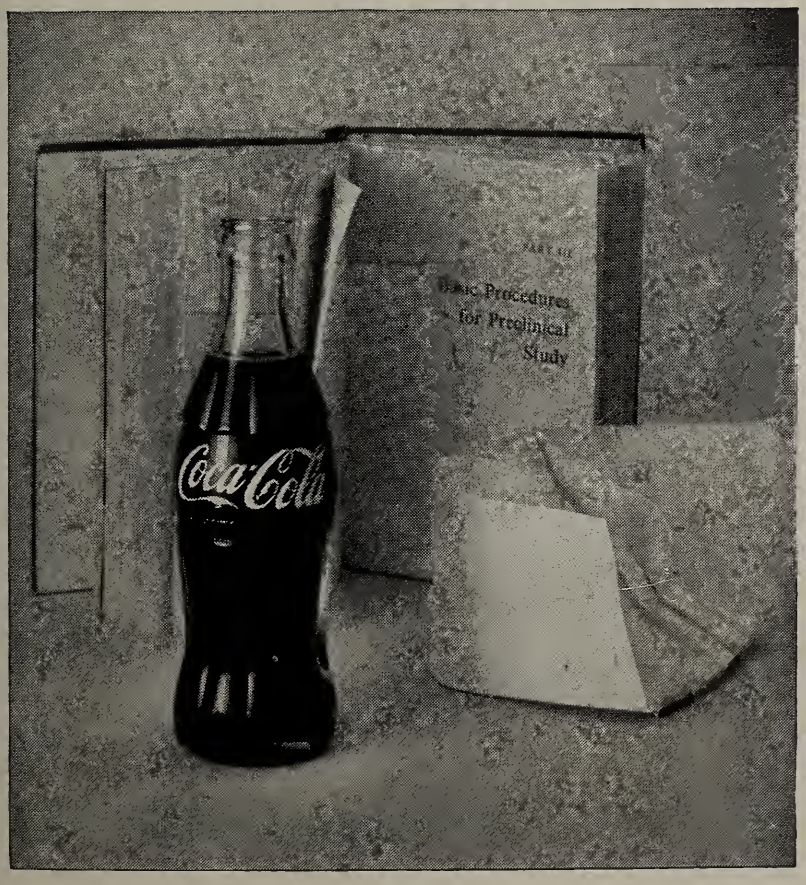

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IN MEMORIAM

JESSE L. BENDER, M.D., eighty-three, a doctor of medicine for fifty years in various areas of Houghton and Ontonagon counties and in Wisconsin, died August 31, 1960.

A native of Richland Center, Wisconsin, Doctor Bender was a graduate of Marquette University Department of Medicine in 1907. Following graduation he started practicing medicine in Richland County, and later went to the Copper Country, where he was associated for a time with the Isle Royale Mining Company.

Doctor Bender was a member of the Rockland Masonic Lodge, and on August 10, 1960, received his forty-year pin at a special meeting in Rockland.

He was also honored by the Ontonagon County Medical Association in 1957.

J. C. CLIPPERT, M.D., eighty-four, a Detroit physician, died October 16, 1960.

Doctor Clippert was a 1900 graduate of Detroit College of Medicine and a captain in the Army Medical Corps in World War I. In 1951, Doctor Clippert, having practiced medicine for half a century, received the Michigan State Medical Society's Fifty-Year-Award pin.

He was a member of St. John Episcopal Church.

ANTHONY J. FONT, M.D., sixty-six, Detroit obstetrician and gynecologist, died October 20, 1960.

Doctor Font was born in San Juan, Puerto Rico, was graduated at Loyola University, and completed his internship at Grace Hospital in 1917.

He enlisted in the Army Medical Corps in World War I and saw service in France as a captain attached to Base Hospital No. 36.

J. EARL McINTYRE, M.D., seventy-six, Lansing physician and widely known throughout state and national medical circles because of his long tenure as secretary and executive officer of the State Board of Registration in Medicine, died October 21, 1960.

A native of Bettsville, Ohio, Doctor McIntyre came to Lansing in his early childhood. He took his college work and medical training at the Wayne University College of Medicine, interning at Harper Hospital before opening his office in Lansing. He served as president of the Ingham County Medical Society in 1925-26, just prior to his appointment to the Michigan State Board of Registration in Medicine. He also served as a member of the Lasing Board of Health and was first secretary of the Ingham County Tuberculosis Hospital, now the Ingham Medical Hospital.

His experience and reputation in directing affairs of the Registration Board won him national renown and he was elected president of the Federation of State Medical Boards in 1941, and was made a member of the National Board of Medical Examiners. In 1958 he was awarded a fifty-year pin by the Michigan State Medical Society.

Doctor McIntyre was active in local fraternal, church, veterans and social organizations. He was a 32nd degree Mason, a member of Elf Khurafeh Shrine of Saginaw; of Capitol Lodge No. 66, F. & A. M.; Capitol Chapter No. 9,

Say you saw it in the Journal of the Michigan State Medical Society

R.A.M., and Lansing Commandery No. 25, Knights Templar. He was a past chairman of the board of trustees of First Presbyterian Church, and a member of the Country Club of Lansing and the Lansing City Club.

Doctor McIntyre was a veteran of World War I, serving as an army medical officer from the time of the Mexican border trouble in 1916 until the war's end in 1918. He served as state commander of the United Mexican Border Veterans.

CLIFFORD G. MENZIES, M.D., fifty-eight, former director of Michigan State University's Olin Memorial Hospital, died October 4, 1960.

Doctor Menzies was a graduate of McGill Medical School, Montreal. He interned at Lying-In Hospital, New York City, and spent four years in postgraduate study with Doctor A. C. Furstenberg at the University Hospital, Ann Arbor.

He was director of the Ford Hospital at Iron Mountain for 20 years before he became head of the MSU medical facility. Doctor Menzies was an ear, nose and throat specialist.

He was a member of various medical groups and a member of Peoples Church, East Lansing.

GEORGE N. PETROFF, M.D., forty-two, Pontiac physician and outstanding civic leader, died September 10, 1960.

Doctor Petroff was born in Bestaberg, Pa., and was graduated from Bethany College and Wayne State University College of Medicine. He entered practice in Pontiac in 1944, after returning from the European theater of World War II.

Doctor Petroff was a past secretary of the Oakland County Medical Society, past president of the Pontiac Junior Chamber of Commerce, a member of the Kiwanis, Elks, Chamber of Commerce, Orchard Lake Country Club and Pontiac City Club.

In 1954, the Michigan Junior Chamber of Commerce named Doctor Petroff "Michigan's Outstanding Young Man."

He also acted as a physician for high school athletes and led a drive to raise funds for disaster relief after the Flint tornado. Doctor Petroff served on the Pontiac General Hospital Building Committee, was active in Boy Scout and PTA work and headed the Pontiac Area United Fund's professional solicitations.

He was on the staffs of Pontiac General and St. Joseph Mercy Hospitals.

RAY A. PINKHAM, M.D., seventy-two, a retired Lansing physician, died October 7, 1960.

Doctor Pinkham, a native of Ionia and a graduate of the University of Michigan Medical School, started practicing in Lansing in 1916. He practiced there until his retirement in 1953.

During World War I he was a member of the Army Medical Corps, stationed in New York City treating wounded soldiers returning from overseas.

Doctor Pinkham was a past president of the Ingham County Medical Society. He also was active in the direction of nurse training at St. Lawrence Hospital and taught classes to student nurses for more than 10 years.

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W. O. Umiker, M.D. and **H. H. Gadebusch, M.D.**, Ann Arbor, "Fluorescence Microscopy: A Review," *University of Michigan Medical Bulletin*, July, 1960.

Richard J. Bartlett, M.D., Ann Arbor, "Light Hypersensitivity: A Review," *University of Michigan Medical Bulletin*, July, 1960.

W. S. Reveno, M.D. and **R. M. McKean, M.D.**, Detroit, "Fourth International Goiter Conference, London, 1960," *Harper Hospital Medical Bulletin*, July-August, 1960.

Giovanni Chiappe, M.D., Detroit, "Perforated Peptic Ulcer," *Harper Hospital Medical Bulletin*, July-August, 1960.

Irving F. Burton, M.D. and **Fernand L. Hould, M.D.**, Detroit, "Visceral Larva Migrans Syndrome Caused by Human Ascaris Lumbricoides," *Harper Hospital Medical Bulletin*, July-August, 1960.

Hermann Pinkus, M.D., Detroit, "Anatomy of the Skin, 1958," *Dermatologica*, Vol. 120, No. 4 (1960).

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Edward S. Mercantini, M.D. and **Andrew E. Segal, M.D.**, Detroit, "Clinical Evaluation of Triburon in the Topical Treatment of Pyodermas," *AMA Archives of Dermatology*, June, 1960.

Hermann Pinkus, M.D., Detroit, "Therapy of Skin Cancer," Clinical Medicine, April, 1960.

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Willard N. Hayes, M.D., Norway, Michigan, "Sporotrichosis in Employees of a Tree Nursery," *GP*, October, 1960.

George W. Westcott, M.D., Ypsilanti, "A New Instrument for Sharp Cervical Conization," *AMA Archives of Surgery*, October, 1960.

Joe M. Abell, Jr., M.D. and **Robert W. Bailey, M.D.**, Ann Arbor, "Hemophilic Pseudotumor," *AMA Archives of Surgery*, October, 1960.

Richard J. Ferrara, M.D., Grosse Pointe Woods, "The Private Dermatologist and Skin Cancer," *AMA Archives of Dermatology*, February, 1960.

Albert M. Kligman, M.D., Ph.D., Philadelphia, and **Hermann Pinkus, M.D.**, Detroit, "The Histogenesis of Nevoid Tumors of the Skin," *AMA Archives of Dermatology*, June, 1960.

John W. Henderson, M.D., Ann Arbor, "Neuro-Ophthalmology," *Archives of Ophthalmology*, October, 1960.

Edward S. Mercantini, M.D., Detroit, "Failure to Show the Presence of a Chromaffin System of Cells in the Human Skin," *Journal of Investigative Dermatology*, May, 1960.

Yutaka Mishima, M.D., Detroit, "New Technique for Comprehensive Demonstration of Melanin, Premelanin, and Tyrosinase Sites," *The Journal of Investigative Dermatology*, June, 1960.

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Hermann Pinkus, M.D., Monroe, "Root Sheath Mucinosis," Proc. 11th International Congress Dermatology, 1957, Vol. III.

Abraham Becker, M.D., **Stuart Barak, M.D.**, **Esmond Braun, M.D.**, and **Maurice P. Meyers, M.D., F.A.C.S.**, Detroit, "The Treatment of Postoperative Pulmonary Atelectasis with Intermittent Positive Pressure Breathing," *Surgery, Gynecology and Obstetrics*, October, 1960.

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Nicholas S. Gimbel, M.D., Fredrick Weissman, M.D., Joseph Schirle, M.D. and **Aline U. Orten, Ph.D.,** Detroit, "Acid Debridement of Burned Rats and Men," *American Journal of Surgery,* May, 1960.

Merle Lawrence, Ph.D., Ann Arbor, "Some Physiological Correlates of Noise Induced Hearing Loss," *Industrial Medicine and Surgery,* October, 1960.

R. W. Waggoner, M.D., Ann Arbor, "The Early Recognition of Behavioral Disturbances," *Industrial Medicine and Surgery,* October, 1960.

Leonard E. Himler, M.D., Ann Arbor, "Occupational Rehabilitation Following Mental Illness," *Industrial Medicine and Surgery,* October, 1960.

A. R. W. Climie, M.D., Detroit, "Diffuse Sudanophilic Cerebral Sclerosis," *Harper Hospital Bulletin,* September-October, 1960.

Jack C. Westman, M.D., Ann Arbor, "A Method for Measuring Thermoregulatory Reactivity in Psychiatric Patients," *Diseases of Nervous System,* May, 1960.

Jack C. Westman, M.D., Ann Arbor, "An Overview of Group Psychotherapy," *AMA Archives of General Psychiatry,* March, 1960.

H. R. Lissner, M.S., M. Lebow, M.S., Detroit, and **F. Gaynor Evans, Ph.D.,** Ann Arbor, "Experimental Studies on the Relation Between Acceleration and Intracranial Pressure Changes in Man," *Surgery, Gynecology and Obstetrics,* September, 1960.

William H. Beierwaltes, M.D., Horace R. Crane, Ph.D., Audrey Wegst, M.S., Norma R. Spafford, A.B., and **Edward A. Carr, Jr., M.D.,** Ann Arbor, "Radioactive Iodine Concentration in the Fetal Human Thyroid Gland from Fall-out," *Journal American Medical Association,* August 27, 1960.

Everett E. Hammonds, M.D., Birmingham, **Kenneth E. Corrigan, Ph.D.,** and **Henrietta S. Hayden, Ph.D.,** Royal Oak, "Cardiotoxic Thyroid and Radioactive Iodine," *Journal American Medical Association,* August 27, 1960.

Laurence S. Fallis, M.D. and **James Barron, M.D.,** Detroit, "Ileorectal Anastomosis in Ulcerative Colitis," *Archives of Surgery,* September, 1960.

G. Jan Beekhuis, M.D., Detroit, "Granular-Cell Myoblastoma of the Larynx," *Archives of Otolaryngology,* September, 1960.

David Barsky, M.D., Wyandotte, "Eye Injuries Due to Power Lawn Mowers," *Archives of Ophthalmology,* September, 1960.

Melvin L. Selzer, M.D., Ann Arbor, "The Use of First Names in Psychotherapy," *AMA Archives of General Psychiatry,* September, 1960.

R. V. August, M.D., Muskegon, "Obstetric Hypoanesthesia," *American Journal of Obstetrics and Gynecology,* June, 1960.

R. V. August, M.D., Muskegon, "Hypnosis: An Additional Tool in the Study of Infertility, Fertility and Sterility," Volume II, Number 1, January-February, 1960.

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

CANCER OF THE CERVIX, DIAGNOSIS OF EARLY FORMS. In honor of Prof. Dr. C. Kaufmann. Ciba Foundation Study Group No. 3. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P. and Maeve O'Connor, B.A. 27 illus. Boston: Little, Brown and Company, 1960. Price, $2.50.

This is an excellent small book that thoroughly covers its subject. There are a number of good illustrations and diagrams that support the text and the discussions of the study group. Considerable space is allotted to the Schiller test and enzymatic vaginal secretion studies.

A.A.H.

CLASSICS OF MEDICINE AND SURGERY (formerly titled: Epoch-making Contributions to Medicine, Surgery and the Allied Sciences). Collected by C. N. B. Camac. Dover Publications, Inc., New York, New York: Henry Schuman, 1960. Price $2.25.

This volume contains twelve of what are purported to be the greatest papers in medical history. All are printed in full except that of Laennec, from which excerpts have been taken. Biographies and portraits of the nine authors are included in the work. The papers are unabridged.

This is a republication, paper bound, of a work originally published in 1909 by Saunders, under the title Epoch-making Contributions to Medicine, Surgery and the Allied Sciences.

It is a good source book for those interested in medical writings.

R.W.B.

MEDICINE TODAY: A Report on a Decade of Progress. By Marguerite Clark. New York: Funk & Wagnalls Company, 1960. Price $4.95.

This is a book for the layman on medical progress of the past decade by the Medicine Editor of *Newsweek Magazine*. The author has had more than considerable experience in the field of science writing and particularly in writing about medicine. She has been acclaimed as the outstanding medical journalist in magazine writing today. The book is well written, informative, and seems well documented. She seems to have a knack of presenting this rather difficult material in a language which all can understand. There are no illustrations, but the interesting style of exposition makes up for their absence. Most of the material is derived from personal interviews with well-known practitioners and research workers throughout the country.

It is a highly recommended book for laymen, so many of whom are interested in this subject, the light reading for the doctor, as well.

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SOURCE BOOK OF MEDICAL HISTORY. Compiled with notes by Logan Clendening, M.D. Dover Publications, Inc., New York, New York. New York: Henry Schuman, 1960. Price $2.75.

As the title implies, this book, in paper-bound form, is a compilation of classical medical writings presented in the order of their historical time of occurrence. To each section, brief introductory notes on the section or author are included. Selections from lay-literature of the time proporting to show a view of the medical life of the time from another viewpoint, are presented. Few articles appear in entirety, but rather as selected excerpts.

Covering a period of some 4,000 years of medical history, 124 papers by 120 authors, are presented in chronological order.

Although paper covered, the book is well printed on good stock, with legible type and offers an interesting compilation for those interested in the subject.

R.W.B.

SIGHT. A Handbook for Laymen. By Roy O. Scholz, M.D., Ophthalmologist, The Johns Hopkins Hospital; Ophthalmologist-in-Charge, Out-Patient Department, The Johns Hopkins Hospital. Garden City, New York: Doubleday & Company, Inc., 1960. Price, $3.50.

There is a field for the use of this book. Many questions are asked of the doctor: What to do about this or that or what eye conditions may mean. The schools have questions, the parents of children have questions, and other doctors have questions. This book contains a rather well-selected treatise upon the eyes, tells about eye examinations, what they will disclose, the prescription of glasses, the discussions of the various items discovered such as astigmatism, far sightedness, near sightedness, contact lenses, optical aids, children's eyes, crossed eyes, glaucoma, cataract, the blind. It is well written and sufficiently illustrated.

PHYSIOLOGY OF PREGNANCY, Edited by Ernest W. Page, M.D., and ENDOMETRIOSIS, Edited by Charles S. Stevenson, M.D. Clinical Obstetrics and Gynecology, Volume 3, Number 2, June, 1960. New York: Paul B. Hoeber, Inc., Medical Division of Harper & Brothers Published Quarterly, $13.00 a year.

The first subject in this quarterly review is Physiology of Pregnancy. This includes the Physiology of the Human Placenta at Term, Hormones, Carbohydrate Metabolism, Plasma Lipids, Renal Functional Changes, Circulatory Adjustments, Hematologic Aspects and the Physiology of the Uterine Contraction.

The chapter on Carbohydrate Metabolism presents many new as well as future possibilities of saving fetuses which would otherwise be lost.

The second subject is Endometriosis. The newer concepts of the pathology, probable mechanisms of origin and spread together with hormone treatment and surgical treatment are discussed in detail. The overall thought is saving as much ovarian tissue as possible in all women under the age of sixty.

The concluding chapter presents varied case histories, their

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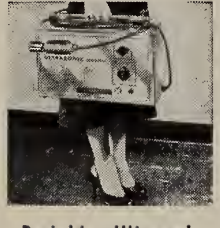

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J.R.P.

YOUR CHILD'S CARE, 1001 QUESTIONS AND ANSWERS. A new, revised, and enlarged edition of "A Pediatric Manual for Mothers." By Harry R. Litchfield, M.D., F.A.C.P., and Leon H. Dembo, M.D. Garden City, New York: Doubleday & Company Inc., 1960. Price, $3.95.

This is the second edition of a comprehensive pediatric handbook for mothers. Newer medications, methods of treatments and discoveries, such as the vaccines, have been added. The text is unique in that it is entirely a question-and-answer presentation, thereby eliminating extensive reading and being more useful as a quick reference.

The main value of the book is for the mother. However, it is useful to the busy general practitioner as well as the pediatrician. Many subjects are touched on lightly, but sufficient information is given to be of great help to the parent.

J.R.P.

1846-1958 DIGEST OF OFFICIAL ACTIONS. American Medical Association. Volume 1, First Edition. By F. J. L. Blasingame, M.D., Executive Vice President. American Medical Association, 1959. Price, $5.00.

RUDOLPH MATAS. A Biography of One of the Great Pioneers in Surgery. By Isidore Cohn, M.D., with Hermann B. Deutsch. Garden City, New York: Doubleday & Company, Inc., 1960. Price, $5.95.

To the special group of people who knew Rudolph Matas as a person, this biography will be an invaluable source book and it deserves a place on their book shelf. However, the vast majority will find it a difficult book to read. The authors have buried the brilliant drama of Matas' life and career under a mass of inconsequential detail, including his forebears, political and historical anecdotes, and social philosophy.

For an occasional page and, rarely, for a chapter, the book comes to life and the reader is introduced to what the book might have been. The rest of the book is heavy going.

Rudolph Matas deserves membership in that group of famous American medical men, such as the Mayo brothers, whose biographers have familiarized the general public with the men and their work. The material is there. This book does Rudolph Matas a disservice.

J.M.H.

MEDICAL RESEARCH AND THE DEATH PENALTY. A Dialogue. New York-Washington-Hollywood: Vantage Press, 1960. Price, $2.50.

A bizarre program for carrying out death penalties in criminals is proposed in this little book. Consideration of the "rightness" of the death penalty are developed into an argument between proponents and opponents. The author tells of the difficulty of doing some very useful and maybe necessary vivisection experiments on live human beings, which would add greatly to knowledge. He proposes to use death by anesthesia as a method of carrying out the death penalty, the condemned to be given a choice of hanging, gas, shooting,

or anesthesia. Those choosing anesthesia are to be used as experimental material, to completion of experiments, will be kept under anesthesia, and finally a lethal dose given. The person will be anesthetized at the time of the sentence—the difference being this is a different method and does provide vivisection material with no pain of untoward after-effects.

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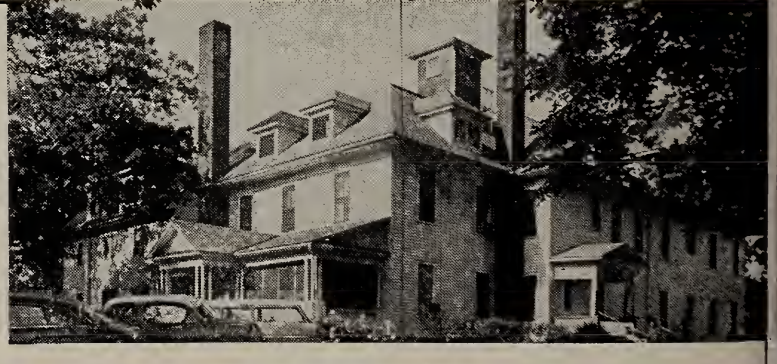

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Fluoride occurs naturally in water used by communities in forty-three States, according to a US Public Health Service report, "Natural Fluoride Content of Communal Water Supplies."

Based on data compiled by the dental directors of all state health agencies, the report indicates that the water supplies of 1,903 cities and towns with a combined population of 7 million contain enough fluoride naturally to prevent two out of three dental cavities.

* * *

A national medical center for Korea, which was opened October 2, 1958, in Seoul, is the largest modern medical facility in the Far East. The center has 465 beds and was financed with 2.4 million dollars from UNKRA funds and 2 million dollars contributed by Norway, Sweden and Denmark. For its first five years of operation, the center will have approximately eighty Scandinavian staff members, supported by an annual 1.5 million dollars contribution from the three countries. The entire facility will be turned over to Korea in 1963.

* * *

Louse-borne typhus cases, which were counted in the millions after World War I and in the hundreds of thousands after World War II, amounted to only 5,800 in 1959, according to the World Health Organization.

This represents a decrease of more than 1,000 cases from the 1958 figure of 6,960. The biggest drop was in Ethiopia.

Reports from the U. S. Census of Manufacturers show Michigan had 9,891 industrial plants in 1947, 12,711 in 1954 and 13,238 in 1958. During the past period from 1954 to 1958 Michigan gained 527, just passed by Illinois with 531 but way ahead of Ohio's 407. Michigan lost three plants per year employing 20 or more.

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Did you know?—That Americans spend twice as much money for recreation, alcoholic beverages and tobacco as they do for medical care.

* * *

For the first time in its 91 years of continuous history, the San Francisco Medical Society is presided over by a physician who is a woman, Roberta F. Fenlon, M.D. Doctor Fenlon, a leader in the San Francisco medical community for a number of years. "The future for a woman physician is very good—if she has the desire and the stamina," says Doctor Fenlon.

* * *

A poisonous substance—benzpyrene—that is a suspected cause of cancer was found in the air of 103 cities by Public Health Service. Benzpyrene results mainly from burning or distilling of furnace fuels and is known to cause cancer in animals.

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CIRCULATES AFTER
LIBRARY
Founded 1813
FEB 18 '60
SCHOOL OF MEDICINE

The Journal
Michigan
STATE MEDICAL SOCIETY

January, 1960
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Number 1

STACKS

Michigan State Medical Society
Ninety-Fourth Annual Session
September 27-30, 1959

Digest of Proceedings of the House of Delegates

(This number is composed of three sections, of which this is Section 2)

MSMS Ninety-Fourth Annual Session—1959
House of Delegates Proceedings

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	1. Resolution to Memory of L. Fernald Foster, M.D.	9	9	approved
III.	Speaker's Remarks	9	41	approved
IV.	President's Remarks	9	41	approved
V.	President-Elect's Remarks	10	41	approved
VI.	Reports of The Council, including Supplemental Report of Committee on Big Look (15)	11	55	amended and approved, except Rec. 4
VII.	Report of Delegates to American Medical Association	16	41	approved
VIII.	Report of Woman's Auxiliary to MSMS	18	41	approved
IX.	Report of Michigan State Medical Assistants Society	19	41	approved
X.	Michigan Medical Service Report	20	51	Ref. Comm. report as amended, was approved
XI.	Selection of Michigan's Foremost Family Physician	20	40, 69	
XII.	Resolutions: *(Where resolutions are identical or similar in content, the names of the introducers are indicated, to avoid confusion.)*			
	1. Kalamazoo State Hospital Centennial	20	42	approved
	2. Bylaws (Chapter 6, Section 6): Investigation of Misconduct	20	47	disapproved
	3. Freedom of Choice of Contract in Michigan Medical Service	21	69	amended and approved
	4. Modification of M-75 to $5,000 Income Limit	21	64	substitute approved
	5. Modification of M-75 to $6,500 Income Limit	21	64	substitute approved
	6. Hospital Committee Reports, Prevent Subpoena	21	49	approved and referred to Legal Affairs Committee
	7. MMS Board of Directors: Publish nominations for	21	42	approved
	8. Reaffirming 1957 Statement of Principles	21	73	substitute amended and referred to Committee to Work with National Blue Shield
	9. Bylaws (Chapter 16, Section 2): Dues delinquency date change	22	46	approved
	10. MMS: Participating and non-participating physicians to be paid in same manner (Lahti)	22	70	substitute approved, as amended
	11. Creation of House of Delegates Special Committee on Constitution and Bylaws	22	51	substitute approved
	12. MSMS Sponsorship of a Prepaid Medical Care Insurance Plan	22	74	approved
	13. Bylaws (Chapter 9, Sections 1-2 and Chapter 10, Section 2) Councilors to be members of House of Delegates	22	48	Reference Committee report as amended was approved and referred to Special House of Delegates Study Committee
	14. MMS: Promote sale of deductible and limited service contracts	22	69	no action—work already accomplished
	15. MMS Board of Directors: Maximum term of members	22	42	approved
	16. MMS: Family income determination	23	64	substitute approved
	17. MMS: Participating and non-participating physicians to be paid in same manner (Vardon)	23	70	substitute approved, as amended
	18. Adoptions	23	49	approved
	19. Bylaws (Chapter 16, new Section 4): Deferment of dues	23	46	disapproved (see Res. 9)
	20. MMS: Participating and non-participating physicians to be paid in same manner (W. J. Fuller)	23	70	substitute approved, as amended
	21. House of Delegates to approve prepayment plans contracts	23	74	no action: referred to Committee to Work with National Blue Shield
	22. Portion of dues rebated to county society for local public relations program	24	49	disapproved
	23. Bylaws (Chapter 6): Transposing Sections 11 and 12	24	47	approved
	24. Transmitting Council Minutes to Delegates (McLean)	24	43	substitute approved

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25.	Bylaws (Chapter 16, New Section 4): Reduced dues for younger members so privileged by CMS	24	46	approved
26.	Geriatrics Chairs in Medical Schools	24	50	amended and approved
27.	House of Delegates Committee to Study Malpractice	24	42	amended and approved
28.	Transmitting Council Minutes to Delegates (Miller)	25	43	substitute approved
29.	Bylaws: Delete Chapter 7 re Grievance Committee	25	56	disapproved
30.	Itemization of Blue Cross-Blue Shield Premium Notices	25	70	amended and approved
31.	Prenatal Health Program of Michigan Department of Health	25	50	referred to MSMS Maternal Health Committee
32.	Bylaws (Chapter 6, Section 7): To delete "dismissal" in last sentence	25	47	disapproved
33.	Bylaws (Chapter 10, Section 7): Editor to be elected by House of Delegates (Tallant)	25	49	substitute approved; referred to House of Delegates Special Committee
34.	Amendment to Bylaws (Chapter 10, Section 7): Editor to be elected by House of Delegates (Tallant)	25	49	substitute approved; referred to House of Delegates Special Committee
35.	Transmitting Council Minutes to County Society Secretaries	26	43	substitute approved
36.	Civil Defense Training Programs	26	52	amended and approved
37.	Medical Student Recruitment	26	50-51	amended and approved
38.	MMS: Study of remuneration for prolonged and/or complicated cases	26	73	substitute approved: referred to Committee to Work with National Blue Shield
39.	Other professions: Reduced fees to senior citizens	26	50	amended and approved
40.	MMS: Changes in public advertising	27	70	disapproved
41.	Commendation to Medical Care Insurance Committee	27	42	approved
42.	MMS: Determining total annual family income	27	64	substitute approved
43.	Delegates' Handbook Listing of MSMS Officers	27	51	approved
44.	Constitution (Article X, Section 1): Election of Secretary by House of Delegates	31	48	deferred for one year
45.	Constitution (Article X, Section 1): Election of Treasurer by House of Delegates	31	48	deferred for one year
46.	American Association of Physicians and Surgeons Membership	31	51	no action
47.	Bylaws Amendments Recommended by The Council	31	47	
	(A) Chapter 11, Section 3: Eliminate Cancer Control Committee	31	47	approved
	(B) Chapter 11, Section 1-(e): Change name of Legislative Committee to Legal Affairs Committee	31	47	approved
	(C) Chapter 5, Section 3-(e): Active membership for Armed Forces, Public Health Service and Veterans Administration Officers	31	47	disapproved
	(D) Chapter 4, Section 4: Include death as reason for refund of MSMS dues	32	48	approved
	(E) Chapter 11, Section 5: Membership on MSMS Ethics Committee	32	58	approved (see Res. No. 50, below)
	(F) Chapter 12, Section 1: Election of four Delegates to AMA in alternate years	32	48	amended and approved
	(G) Chapter 12, Section 3: Terminology of "Meeting" and "Session"	32	48	approved
48.	Bylaws (Chapter 6, Section 6): Investigative procedures	53	58	approved
49.	Bylaws (Chapter 7, Section 3): Investigative procedures	53	58	approved
50.	Bylaws (Chapter 11, Section 5): Membership on Ethics Committee	53	58	approved (see 47(E) above)
51.	Bylaws (Chapter 11, Section 2). Membership on Postgraduate Medical Education Committee	54	58	tabled for one year
52.	Constitution (Article X, new Section 3): Voting privileges of Secretary and Treasurer	54	58	deferred for one year
53.	Spring Session of MSMS House of Delegates	55	62	ruled out of order
XIII.	Fifty Year Awards	27	72	approved, except Item 5: appointment of Committee to Work with National Blue Shield authorized
XIV.	Presentation made by Chairman, National Blue Shield Plans	27		
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1.	Permanent Advisory Committee on Fees	32	70	approved

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4.	MCIC Study on Alternate Methods of Payment to Non-participating Physicians	33	72	approved
5.	Ad Hoc Study Committee on Regional Election of MMS Board Members	40	42	no action pending report of Committee to Work with National Blue Shield
XVI.	Reports of MSMS Standing Committees:	41	52	
1.	Postgraduate Medical Education Committee	41	52	approved
2.	Preventive Medicine Committee and Sub-Committees	41	52	amended and approved
3.	Public Relations Committee and Sub-Committees	41	53	approved
4.	Ethics Committee	41	53	approved
5.	Legislative Committee	41	53	approved
XVII.	Reports of MSMS Special Committees:	41	41	
1.	Scientific Radio Committee	41	41	approved
2.	Advisory Committee to Woman's Auxiliary	41	41	approved
3.	Advisory Committee to Michigan State Medical Assistants Society	41	41	approved
4.	Committee on Study of Prevention of Highway Accidents	41	41	approved
XVIII.	Reports of Reference Committees:		41	
1.	*On Officers Reports:* (a) Speaker's Remarks (41); (b) President's Remarks (41); (c) President-Elect's Remarks (41); (d) Report of Delegates to American Medical Association (41); (e) Report of Woman's Auxiliary to MSMS (41); (f) Report of Michigan State Medical Assistants Society (41); (g) House of Delegates Committee on Committees (41)		41	
2.	*On Reports of Special Committees* (a) Scientific Radio Committee (41); (b) Advisory Committee to Woman's Auxiliary (41); (c) Advisory Committee to Michigan State Medical Assistants Society (41); (d) Committee on Study of Prevention of Highway Accidents (41); (e) House of Delegates Study Committee on Term of Councilor (41); (f) Ad Hoc Study Committee on Regional Election of MMS Board Members (42)		41	
3.	*On Resolutions* (a) Kalamazoo State Hospital Centennial (42); (b) MMS Board of Directors: publish nominations for (42); (c) MMS Board of Directors: maximum term of members (42); (d) House of Delegates Committee to Study Malpractice (42); (e) Commendation to MSMS Medical Care Insurance Committee (42)		42	
4.	*On Special Memberships*		43	
5.	*On Rules and Order of Business* (a) Transmitting Council minutes to Delegates (McLean (43); (b) Transmitting Council minutes to Delegates (Miller) (43); (c) Transmitting Council minutes to County Society Secretaries (43); (d) Spring Session of MSMS House of Delegates (62)		43	
6.	*On Committee on Constitution and Bylaws* (a) Bylaws (Chap. 16, Sec. 4): Deferment of dues (46); (b) Bylaws (Chap. 16, Sec. 2): Dues delinquency date change (46); (c) Bylaws (Chap. 16): Reduced dues for younger members (46); (d) Bylaws (Chap. 6): Transposing Sec. 11 and 12 (47); (e) Bylaws (Chap. 6, Sec. 6): Investigation of misconduct (47); (f) Bylaws (Chap. 6, Sec. 7): To delete "dismissal" in last sentence (47); (g) Bylaws—Seven proposed amendments recommended by The Council (47): (1) Chap. 11, Sec. 3 (47); (2) Chap. 11, Sec. 1-e (47); (3) Chap. 5, Sec. 3-e (47); (4) Chap. 4, Sec. 4 (48); (5) Chap. 11, Sec. 5 (58); (6) Chap. 12, Sec. 3 (48); (7) Chap. 12, Sec. 3 (48); (h) Constitution Article X, Sec. 1): Election of Secretary by House of Delegates (48); (i) Constitution (Article X, Sec. 1): Election of Treasurer by House of Delegates (48); (j) Bylaws (Chap. 9, Sec. 1-2 and Chap. 10, Sec. 2): Councilors to be members of House of Delegates (48); (k) Bylaws (Chap. 10, Sec. 7): Editor to be elected by House of Delegates (49); (l) Amendment to Bylaws so Editor is elected by House of Delegates (49); (m) By-		46	

		Introduction of Business	*Reference Committee Report*	*Action*
	laws: Delete Chap. 7 re Grievance Committee (56); (n) Bylaws (Chap. 6, Sec. 6): Investigative procedures (58); (o) Bylaws (Chap. 7, Sec. 3): Investigative procedures (58); (p) Bylaws (Chap. 11, Sec. 5): Membership on Ethics Committee (58); (q) Bylaws (Chap. 11, Sec. 2): Membership on Postgraduate Medical Education Committee (58); (r) Constitution (Art. X, new Sec. 3): Voting privileges of Secretary and Treasurer (58)			
7.	*On Legislation and Public Relations*..... (a) Hospital Committee Reports, Prevent Subpoena (49); (b) Adoptions (49); (c) Portion of Dues Rebated to County Medical Society for Local Public Relations Program (49); (d) Geriatrics Chairs in Medical Schools 50); (e) Medical Student Recruitment (50-51); (f) Other Professions: Reduced fees to senior citizens (50)		49	
8.	*On Hygiene and Public Health*..... (a) Prenatal Health Program of Michigan Department of Health (50)		50	
9.	*On Miscellaneous Business*..... (a) Creation of House of Delegates Standing Committee on Constitution and Bylaws (51); (b) Handbook Listing of MSMS Officers (51); (c) AAPS Membership (51); (d) Michigan Medical Service Report (51)		51	
10.	*On National Defense and Disaster Planning*..... (a) Civil Defense Training Programs (52)		52	
11.	*On Reports of Standing Committees*..... (a) Postgraduate Medical Education (52); (b) Preventive Medicine Committee (53); (c) Public Relations Committee (53); (d) Ethics Committee (53); (e) Legislative Committee (53)		52	
12.	*On Reports of The Council*..... (a) Annual Reports of The Council (55) including Supplemental Report of Committee on Big Look (55)		55	
13.	*On Committee on Medical Service and Prepayment Insurance* ..... (a) Modification of M-75 to $5,000 Income Limit (64); (b) Modification of M-75 to $6,500 Income Limit (64); (c) MMS: Family income determination (64); (d) MMS: Determining total annual family income (64); (e) Freedom of Choice of Contract in MMS (69); (f) MMS: Promote sale of deductible and limited service contracts (69); (g) Itemization of Blue Cross-Blue Shield premium notices (70); (h) MMS: Changes in public advertising (70); (i) House of Delegates Permanent Advisory Committee on Fees (70); (j) MMS: Participating and non-participating physicians to be paid in same manner (Lahti) (70); (k) MMS: Participating and non-participating physicians to be paid in same manner (Vardon) (70); (l) MMS: Participating and non-participating physicians to be paid in same manner (W. J. Fuller) (70); (m) MCIC: Study on alternate methods of payment to non-participating physicians (72); (n) Presentation made by Chairman, National Blue Shield Plans (72); (o) MMS: Study of remuneration for prolonged and/or complicated cases (73); (p) Reaffirming 1957 Statement of Principles (73); (q) MSMS Sponsorship of a Prepaid Medical Care Insurance Plan Service (74); (r) House of Delegates: To approve prepayment plan contracts (74)		63	
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XX.	Announcement re Michigan Medical Service Elections of September 29, 1959.....	55		
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2.	Councilor, Fourteenth District.....	59		
3.	Councilor, Fifteenth District.....	59		
4.	Councilor, Eighteenth District.....	59		
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8.	Speaker of House of Delegates.....	61		
9.	Vice Speaker of House of Delegates.....	61		
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MSMS House of Delegates-1959

Summary of Proceedings

The Ninety-fourth Annual Session of the Michigan State Medical Society's House of Delegates was held in Grand Rapids, September 27-30, 1959.

The House of Delegates:

1. *Adopted with thanks the Speaker's remarks;* the President's remarks; the President-Elect's remarks; the report of Delegates to the American Medical Association; the report of Woman's Auxiliary to Michigan State Medical Society; the report of the Michigan State Medical Assistants Society; and the amended report of the Reference Committee on the Michigan Medical Service report.

2. *Approved the amended report of the Reference Committee on Annual Reports of The Council including recommendations* (a) to send MSMS representatives to Washington, D. C., in 1960 on Michigan Day; (b) to arrange Councilor Conferences prior to 1960 Annual Session; (c) to have an evaluating team visit those county medical societies that request same. The Annual and Supplemental Reports of Committees of The Council were approved, with commendation.

3. *Adopted Annual Reports of House of Delegates Committees:* (a) Permanent Advisory Committee on Fees; (b) Committee on Committees; (c) MCIC Study on Alternate Methods of Payment to Non-participating Physicians. Took no action on (a) Report of Study Committee on Term of Councilor; and on (b) Annual Report of Ad Hoc Study Committee on Regional Election of MMS Board Members, pending action of Liaison Committee with Blue Shield Medical Care Plans.

4. *Adopted Annual Reports of all Standing Committees and of all Special Committees of The Society* except one recommendation of the Mental Health Committee re membership on Michigan Medical Service Board of Trustees.

5. *Approved presentation made by the Chairman of the Blue Shield Medical Care Plans* (except Item 5, page 7 re National Account Agreement; the House of Delegates recommended to Michigan Medical Service that it adopt this Agreement) and referred the entire problem of relationship of Michigan Medical Service and the Michigan State Medical Society to a Special Liaison Committee with the Blue Shield Medical Care Plans (a committee of the House of Delegates).

6. *Adopted Resolutions concerning:* (a) Memory of the late L. Fernald Foster, M.D.; (b) Kalamazoo State Hospital's Centennial; (c) Freedom of Choice of Contract in Michigan Medical Service (as amended); (d) Hospital Committee Reports, prevents subpoena (referred to Legal Affairs Committee); (e) MMS Board of Directors: publish nominations for; (f) MSMS Sponsorship of Michigan Medical Service; (g) MMS Board of Directors: Maximum Term of Members; (h) Adoptions; (i) Geriatrics Chairs in Medical Schools (as amended); (j) House of Delegates' Committee to Study Malpractice (as amended); (k) Itemization of Blue Cross-Blue Shield Premium Notices (as amended); (l) Civil Defense Training Programs (as amended); (m) Medical Student Recruitment (as amended); (n) Other Professions: Reduced Fees to Senior Citizens (as amended); (o) Commendation to Medical Care Insurance Committee; (p) Delegates' Handbook Listing of MSMS Officers.

7. *Adopted Substitute Resolutions concerning:* (a) Modification of M-75 to $5,000 Income Limit; and Modification of M-75 to $6,500 Income Limit; (b) Reaffirming 1957 Statement of Principles (as amended); this resolution was referred to the Liaison Committee with Blue Shield Medical Care Plans; (c) MMS: Participating and Non-participating Physicians to be paid in same manner (as amended); (d) Creation of House of Delegates' Standing Committee on Constitution and Bylaws; (e) Michigan Medical Service: Family Income Determination; (f) Transmitting Council minutes to Delegates; (g) Transmitting Council minutes to County Society Secretaries; (h) Michigan Medical Service: Study of Remuneration for Prolonged and/or Complicated Cases (referred to Liaison Committee with Blue Shield Medical Care Plans); (i) MMS: Determining Total Annual Family Income.

8. *Referred to MSMS Maternal Health Committee* a Resolution re Pre-natal Health Program of Michigan Department of Health.

9. *Took no action on the following Resolutions:* (a) MMS: Promote Sale of Deductible and Limited Service Contracts; (b) House of Delegates to Approve Pre-payment Plans Contracts (referred to Liaison Committee with Blue Shield Medical Care Plans); (c) American Association of Physicians and Surgeons Membership; (d) Spring Session of MSMS House of Delegates (ruled out of order).

10. *Disapproved the following Resolutions:* (a) Portion of Dues Rebated to County Society for Local Public Relations Program; (b) MMS: Changes in Public Advertising.

11. *Amended the MSMS By-laws:* (a) Chapter 16, Section 2: Dues Delinquency Date Change; (b) Chapter 6: Transposing Sections 11 and 12; (c) Chapter 16 new Section 4: Reduced Dues for Younger Members so Privileged by their County Medical Societies; (d) Chapter 11, Section 3: Eliminate Cancer Control Committee; (e) Chapter 11, Section 1-(e): Change name of Legislative Committee to Legal Affairs Committee; (f) Chapter 4, Section 4: Include Death as Reason for Refund of MSMS Dues; (g) Chapter 11, Section 5: Membership on Ethics Committee; (h) Chapter 12, Section 3: Election of Four Delegates to A.M.A. in Alternate Years (as amended); (i) Chapter 12, Section 3: Terminology of "meeting" and "session"; (j) Chapter 6, Section 6: Investigative Procedures; (k) Chapter 7, Section 3: Investigative Procedures.

Adopted Substitute Resolution Concerning Bylaws' amendments to Chapter 10, Section 7 re Editor to be Elected by House of Delegates, but referred this matter to a special House of Delegates Committee to Study MSMS Publications.

Deferred for one year proposed amendments to Constitution: (a) Article X, Section 1 re Election of Secretary by House of Delegates; (b) Article X, Section 1 re Election of Treasurer by House of Delegates; (c) Article X, new Section 3 re Voting Privileges of Secretary and Treasurer. Table for one year proposed amendment to Bylaws, Chapter 11, Section 2 re membership on Postgraduate Medical Education Committee.

Amended and referred to a special House of Delegates Study Committee a proposed amendment to Bylaws, Chapter 9, Sections 1-2 and Chapter 10, Section 2 re Councilors to be members of House of Delegates. Other investigations were referred to this Special Committee.

Disapproved Resolutions re amendments to Bylaws: (a) Chapter 6, Section 6: Investigation of Misconduct; (b) Chapter 16, new Section 4: Deferment of Dues; (c) Deletion of Chapter 7 re Grievance Committee; (d) Chapter 6, Section 7, to delete "dismissal" in last sentence; (e) Chapter 5, Section 3-(e) re Active Membership for Armed Forces, Public Health Service, and Veterans Administration Officers.

12. *Elected the following officers:*
    (a) Wm. A. Scott, M.D., Kalamazoo, as Councilor of the 4th District (1961)—to fill the unexpired term of Ralph W. Shook, M.D., deceased.
    (b) B. M. Harris, M.D., Ypsilanti, as Councilor of the 14th District (1964).
    (c) R. J. Mason, M.D., Birmingham, as Councilor of the 15th District (1960)—to fill the unexpired term of D. Bruce Wiley, M.D.
    (d) Wm. Bromme, M.D., Detroit, as Councilor of the 18th District (1964).
    (e) W. A. Hyland, M.D., Grand Rapids (1961). J. S. DeTar, M.D., Milan (1961), C. I. Owen, M.D., Detroit (1961), and O. J. Johnson, M.D., Bay City (1961), as Delegates to the American Medical Association.
    (f) J. R. Heidenreich, M.D., Daggett (1960—to fill the unexpired term of Ralph W. Shook, M.D., deceased), W. W. Babcock, M.D., Detroit (1961), G. B. Saltonstall, M.D., Charlevoix (1961), J. M. Wellman, M.D., Lansing (1961), and B. M. Harris, M.D., Ypsilanti (1961), as Alternate Delegates to the American Medical Association.
    (g) K. H. Johnson, M.D., Lansing, as President-Elect.
    (h) J. J. Lightbody, M.D., Detroit, as Speaker of the House of Delegates.
    (i) H. F. Falls, M.D., Ann Arbor, as Vice-Speaker of the House of Delegates.

13. *Elected Archer A. Claytor,* M.D., Saginaw, as Michigan's Foremost Family Physician for 1959.

14. *Presented Fifty-Year Awards to:*
Corwin S. Clarke, M.D., Jackson; Henry Cook, M.D., Flint; Ferdinand Cox, M.D., Jackson; Walter L. Finton, M.D., Jackson; E. V. Joinville, M.D., Detroit; John S. Lambie, M.D., Birmingham; Ralph W. Ridge, M.D., Wyandotte; John T. Sample, M.D., Saginaw; and Emma L. W. Sheppard, M.D., Fenton.

15. *Elected to Special Memberships:*
    (a) *Thirty-nine members to Life Membership*—Branch County: Walter J. Bien, M.D.; Calhoun County: William R. Chynoweth, M.D., and James R. Jeffrey, M.D.; Genesee County: John J. Kurtz, M.D., Robert D. Scott, M.D. and Nell M. Ward, M.D.; Houghton-Baraga-Keweenaw County: John J. Burke, M.D., Raymond E. Hillmer, M.D. and Alfred LaBine, M.D.; Ingham County: Oscar H. Bruegel, M.D. and Alfred J. Drolett, M.D.; Jackson County: Randall M. Cooley, M.D., Starr L. Kline, M.D. and Miar J. McLaughlin, M.D.; Kalamazoo County: William C. Huyser, M.D., William G. Hoebeke, M.D. and R. A. Morter, M.D.; Kent County: Walter W. Oliver, M.D.; Lapeer County: Daniel J. O'Brien, M.D.; Muskegon County: Charles B. Fleishmann, M.D.; Northern Michigan Counties: Frederick C. Mayne, M.D.; Oakland County: Frank B. Gerls, M.D. and Campbell Harvey, M.D.; Wayne County: Charles W. Balser, M.D., Clarence A. Berge, M.D., Perry S. Black, M.D., Julius Y. Burnstine, M.D., Laurence A. Chrouch, M.D., Harold E. Clark, M.D., John F. Demaray, M.D., Harry Goldberg, M.D., Howard Havers, M.D., Ellis R. Green, M.D., Charles Lemmon, M.D., Harold L. Morris, M.D., Clarence V. Smith, M.D., Benjamin R. Springborn, M.D., Peter L. Warner, M.D., and Henry R. Carstens, M.D.
    (b) *Fourteen members to Retired Membership*—Calhoun County: Kenneth B. Keeler, M.D.; Houghton-Baraga-Keweenaw Counties: Charles R. Smith, M.D.; Ingham County: Octavius M. Randall, M.D. and Abraham A. Steiner, M.D.; Kent County: Laurence W. Hayes, M.D., Leland M. McKinley, M.D. and Carl A. Sustrong, M.D.; Livingston County: Jesse J. Hendren, M.D.; Muskegon County: Carl A. Wilke, M.D.; Oakland County: Lionel N. Merrill, M.D.; Wayne County: William E. Jahsman, M.D., Harley L. Krieger, M.D., Bruce C. Lockwood, M.D. and Gordon B. Myers, M.D.
    (c) *Seventy-one members to Associate Membership*—Kalamazoo County: Howard C. Lavender, M.D.; Oakland County: Kenneth E. Corrigan, Ph.D., H. S. Hayden, Ph.D.; Washtenaw County: Francis J. Allaire, M.D., James B. Beatty, M.D., John R. Beljan, M.D., Ralph L. Brandt, M.D., Jack L. Court, M.D., Charles A. Cunningham, M.D., Richard S. Dillman, M.D., Richard H. Earle, M.D., Charles H. Eid, M.D., William R. Feltner, M.D., Richard C. Field, M.D., James B. Fish, M.D., Paul W. Gikas, M.D., William C. Grabb, M.D., Gordon J. Grout, M.D., Ng Harry Hing, M.D., F. Deborah Johnson, M.D., Robert F. Johnston, M.D., Robert H. Joseph, M.D., W. W. Kimbrough, M.D., Frederick J. Kingery, M.D., Charles F. Krausse, M.D., Edwin H. Kroon, M.D., Richard A. Kutcipal, M.D., Theodore R. Lamott III, M.D., Edwin H. Lewis, M.D., Jose J. Llinas, M.D., Marvin J. Lubeck, M.D., W. Frank Matthews, M.D., Jack D. McCarthy, M.D., John M. McGehee, M.D., Leo J. Miedler, M.D., Earl M. Mumford, M.D., Thomas C. Murphy, M. D., Harold A. Oberman, M.D., John O'Sullivan, M.D., Roy Patterson, M.D., Frank N. Ritter, M.D., George W. Schemm, M.D., Bernard S. Silverstein, M.D., Iver F. Small, M.D., Purcell Smith, Jr., M.D., David B. Stevens, M.D., Clarence H. Tannel, M.D., John B. Wear, Jr., M.D., Jack C. Westman, M.D., Eugene I. Winkelman, M.D., and Lawrence H. Wilk, M.D.; Wayne County: John G. Bayles, M.D., Sidney Berman, M.D., H. L. Buller, M.D., H. Neill Calkins, M.D., Jacob L. Chason, M.D., Emerson O. Evison, M.D., Lionel Finkelstein, M.D., Barbara A. Hardt, M.D., Lewis G. Harmon, M.D., Lawrence J. Jamison, M.D., W. H. M. Johnson, M.D., George M. LeGalee, M.D., Philip L. Lathrop, M.D., Elizabeth Levy, M.D., Richard L. Novack, M.D., Robert L. Schaefer, M.D., Thomas O. Sage, M.D., Burton L. Schmier, M.D., Elwood A. Sharp, M.D., and John E. Webster, M.D.

Michigan State Medical Society

DIGEST OF PROCEEDINGS OF THE 1959 HOUSE OF DELEGATES

SUNDAY EVENING SESSION
September 27, 1959

The Ninety-fourth Annual Meeting of the House of Delegates of the Michigan State Medical Society, held on September 27-30, 1959, at the Pantlind Hotel, Grand Rapids, Michigan, convened at 8:30 p.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

I. RECORD OF ATTENDANCE

I. OFFICERS

K. H. Johnson, M.D., Speaker
J. J. Lightbody, M.D., Vice Speaker
D. Bruce Wiley, M.D., Secretary

II. MEMBERS AT LARGE

G. W. Slagle, M.D., Immediate Past President
A. V. Wenger, M.D., Honorary Member

III. MEDICAL STUDENTS

Meetings

	1st	*2nd*	*3rd*	*4th*	*5th*	*6th*
UNIVERSITY OF MICHIGAN						
Robert J. Fisher	–	x	x	x	x	–
Froncie Gutman	–	x	x	x	x	–
Jack Mraz	–	x	x	–	x	–
B. H. MacPherson	–	x	x	–	x	–
Tom Rush	–	x	x	–	x	–
WAYNE STATE UNIVERSITY						
John R. Manis	x	x	x	–	x	x
Newell K. Richardson	x	x	–	–	–	–
John Rienstra	x	x	x	–	–	–
Joseph B. Serra	x	x	x	–	x	x
Robert Threlkeld	–	x	x	–	–	–
Henry Winkler	x	x	x	–	x	–

IV.—DELEGATES

ALLEGAN						
L. F. Brown, M.D.	x	x	x	x	x	x
ALPENA-ALCONA-PRESQUE ISLE						
E. S. Parmenter, M.D.	x	x	x	x	x	–
BARRY						
A. B. Gwinn, M.D.	x	x	x	x	x	x
BAY-ARENAC-IOSCO						
David A. Bowman, M.D.	x	x	x	x	x	x
Stanley A. Cosens, M.D.	x	x	x	x	x	x
BERRIEN						
Noel J. Hershey, M.D.	x	x	x	x	x	x
D. W. Thorup, M.D.	x	x	x	x	x	x
BRANCH						
R. J. Fraser, M.D.	x	x	x	x	x	x
CALHOUN						
Harvey C. Hansen, M.D.	x	x	x	x	x	x
G. T. Kelleher, M.D.	x	x	x	–	x	x
CASS						
Sherman L. Loupee, M.D.	x	x	x	x	x	x
CHIPPEWA-MACKINAC						
Earl S. Rhind, M.D.	x	x	x	x	–	x
CLINTON						
F. W. Smith, M.D.	x	x	x	x	x	x
DELTA-SCHOOLCRAFT						
J. R. Dehlin, M.D.	x	x	x	x	x	x
DICKINSON-IRON						
D. R. Smith, M.D.	x	x	x	x	x	x
EATON						
B. P. Brown, M.D.	x	x	x	x	x	x
GENESEE						
L. G. Bateman, M.D.	x	x	x	x	x	x
Wm. F. Buchanan, M.D.	x	x	x	x	x	x
C. W. Colwell, M.D.	x	x	x	x	x	x
F. D. Johnson, M.D.	x	x	x	–	x	x
H. V. Sparks, M.D.	x	x	x	x	x	–
J. E. Wentworth, M.D.	x	x	x	x	x	x
GRAND TRAVERSE-LEELANAU-BENZIE						
F. H. Power, M.D.	x	x	x	x	x	x
GRATIOT-ISABELLA-CLARE						
J. M. Wood, M.D.	x	x	x	x	x	x
HILLSDALE						
A. W. Strom, M.D.	x	x	x	x	x	x
HOUGHTON-BARAGA-KEWEENAW						
Paul S. Sloan, M.D.	x	x	x	x	x	x
HURON						
C. W. Oakes, Jr., M.D.	x	x	x	x	x	–
INGHAM						
L. A. Drolett, M.D.	x	x	x	x	x	x
H. W. Harris, M.D.	x	x	x	x	x	x
R. M. Stow, M.D.	x	x	x	x	x	x
F. L. Troost, M.D.	x	x	x	x	x	x
J. M. Wellman, M.D.	x	x	x	x	x	x
IONIA-MONTCALM						
Robert E. Rice, M.D.	x	x	x	x	x	–
JACKSON						
H. W. Porter, M.D.	x	x	x	x	x	x
J. W. Rice, M.D.	x	x	x	x	x	x
KALAMAZOO						
W. Kaye Locklin, M.D., and C. W. Perry, M.D.	x	x	x	x	x	– x
Don Marshall, M.D.	x	x	x	x	x	x
D. C. May, M.D.	x	x	x	x	x	x
F. C. Ryan, M.D.	x	x	x	x	x	x
KENT						
W. C. Beets, M.D.	x	x	x	x	x	x
F. C. Brace, M.D.	x	x	x	x	x	x
J. R. Brink, M.D.	x	x	x	x	x	x
J. A. Ferguson, M.D.	x	x	x	x	x	x
W. J. Fuller, M.D.	x	x	x	x	x	x
J. D. Miller, M.D.	x	x	x	x	x	x
V. A. Notier, M.D.	x	x	x	x	x	x
A. R. Vanden Berg, M.D.	x	x	x	x	x	x
LAPEER						
H. B. Zemmer, M.D.	x	x	x	x	x	x
LENAWEE						
G. C. Wilson, M.D.	x	x	x	x	x	x
LIVINGSTON						
E. S. Woodworth, M.D.	x	x	x	x	x	x
LUCE	Not represented					
MACOMB						
J. H. Jewell, M.D.	–	x	x	x	x	–
E. G. Siegfried, M.D.	x	x	x	x	x	x
MANISTEE						
R. R. Garneau, M.D.	x	x	x	x	x	–
MARQUETTE-ALGER						
A. S. Narotzky, M.D.	x	x	x	x	x	x
MASON						
H. G. Bacon, M.D.	x	x	x	x	x	x
MECOSTA-OSCEOLA-LAKE						
Paul Ivkovich, M.D.	x	x	x	x	x	x
MENOMINEE						
J. R. Heidenreich, M.D.	x	x	x	x	x	x

MIDLAND						
Harold L. Gordon, M.D.	–	x	x	x	x	x
MONROE						
Samuel N. Kelso, Jr., M.D.	x	x	x	x	x	x
MUSKEGON						
De Vere R. Boyd, M.D.	x	x	x	–	x	x
H. C. Tellman, M.D.	x	x	x	x	x	x
NEWAYGO						
J. Paul Klein, M.D.	x	x	x	x	x	x
NORTH CENTRAL						
Louis F. Hayes, M.D.	x	x	x	x	x	x
NORTHERN MICHIGAN						
Gerald A. Drake, M.D.	x	x	x	x	x	x
OAKLAND						
R. M. Bookmyer, M.D.	x	x	x	x	x	x
R. W. Bullard, Jr., M.D.	x	x	x	x	x	x
M. A. Haanes, M.D.	x	x	x	x	x	x
F. J. Kemp, M.D.	x	x	x	x	x	x
M. C. Kozonis, M.D.	x	x	x	x	x	x
P. T. Lahti, M.D.	x	x	x	x	x	x
R. J. Mason, M.D.	x	x	x	x	x	x
W. J. Zimmerman, M.D.	x	x	x	x	x	x
OCEANA						
W. A. Hasty, M.D.	x	x	x	x	x	x
ONTONAGON						
Wm. F. Strong, M.D.	x	x	x	x	–	x
OTTAWA						
Otto Van der Velde, M.D.	x	x	x	x	x	x
SAGINAW						
V. V. Bass, M.D.	x	x	x	x	x	x
J. P. Markey, M.D.	x	x	x	x	x	–
A. C. Stander, M.D.	x	x	x	x	x	x
ST. CLAIR						
J. J. Coury, Jr., M.D.	x	x	x	x	x	x
ST. JOSEPH						
S. A. Fiegel, M.D.	x	x	x	x	x	x
SANILAC						
K. T. McGunegle, M.D.	x	x	x	–	x	x
SHIAWASSEE						
C. L. Weston, M.D.	x	x	x	x	x	x
TUSCOLA						
L. L. Savage, M.D.	x	x	x	x	x	x
VAN BUREN						
T. J. Dillon, M.D.	x	x	x	x	x	x
WASHTENAW						
O. K. Engelke, M.D., and	x	x	x	–	–	–
S. T. Harris, M.D.					x	x
H. F. Falls, M.D.	x	x	x	x	x	x
Theodore G. Kabza, M.D.	x	x	x	x	x	x
H. A. Scoville, M.D.	x	x	x	x	x	x
R. Wallace Teed, M.D.	x	x	x	x	x	x
Victor M. Zerbi, M.D.	x	x	x	x	x	x
WAYNE						
Sidney Adler, M.D.	x	x	x	x	x	x
Ralphael Altman, M.D.	x	x	x	x	x	x
E. C. Baumgarten, M.D.	x	x	x	x	x	x
J. B. Blodgett, M.D.	x	x	x	x	x	x
G. T. Bradley, M.D.	x	x	x	x	x	x
J. R. Brown, M.D.	x	x	x	x	x	x
D. A. Cameron, M.D.	x	x	x	x	x	x
M. O. Cantor, M.D.	x	x	–	x	x	x
W. S. Carpenter, M.D.	x	x	x	x	x	x
S. E. Chapin, M.D.	x	x	x	x	x	x
W. C. C. Cole, Sr., M.D.	x	x	x	x	x	x
R. R. Cooper, M.D.	x	x	x	x	x	x
W. J. Coulter, M.D.	x	x	x	x	x	x
M. S. Dennis, M.D.	x	x	x	x	x	x
H. W. Devine, M.D.	x	x	x	x	x	x
G. S. Fisher, M.D.	x	x	x	x	x	x
J. D. Fryfogle, M.D.	x	–	x	–	x	x
H. M. Fuller, M.D.	x	x	x	x	x	x
P. C. Gittins, M.D.	x	x	x	x	x	x
H. W. Henderson, M.D.	x	x	x	x	x	x
Joseph Hickey, M.D.	x	x	x	x	x	x
H. A. Howes, M.D.	x	x	x	x	x	x
P. J. Huber, M.D.	x	x	x	x	x	x
Louis Jaffe, M.D.	x	x	x	x	x	x
R. J. Kokowicz, M.D.	x	x	x	x	x	x
E. G. Krieg, M.D.	x	x	x	x	x	x
A. M. Large, M.D.	x	x	x	x	x	x
F. B. Levagood, M.D.	x	x	x	x	x	x
A. B. Levant, M.D.	x	x	x	x	x	x
J. J. Lightbody, M.D.	x	x	x	x	x	–
Edgar E. Martmer, M.D.	x	x	x	x	x	x
J. F. McGuire, M.D.	x	x	x	x	x	x
Wm. B. McIntyre, M.D.	x	x	x	x	x	x
Don W. McLean, M.D.	x	x	x	x	x	x
R. L. Novy, M.D.	x	x	x	x	x	x
C. I. Owen, M.D.	x	x	x	x	x	x
Howard C. Rees, M.D.	x	x	x	x	x	x
F. P. Rhoades, M.D.	x	x	x	x	x	x
A. Z. Rogers, M.D.	x	x	x	x	x	x
A. D. Ruedemann, Sr., M.D.	x	x	x	x	x	x
John G. Slevin, M.D.	x	x	x	x	x	x
Henry L. Smith, M.D.	x	x	x	x	x	x
David I. Sugar, M.D.	x	x	x	x	–	x
D. N. Sweeny, Jr., M.D.	x	x	x	x	x	x
E. J. Tallant, M.D.	x	x	x	x	x	x
E. M. Vardon, M.D.	x	x	x	x	x	x
Milton R. Weed, M.D.	x	x	x	x	x	x
Jacob F. Wenzel, M.D.	x	x	x	x	x	x
R. K. Whiteley, M.D.	x	x	x	x	x	x
Joseph A. Witter, M.D.	x	x	x	x	x	x
Richard E. Wunsch, M.D.	x	x	x	x	x	x
Wm. J. Yott, M.D.	x	x	x	x	x	x
WEXFORD-MISSAUKEE						
Gregory P. Moore, M.D.	x	–	–	x	x	–

II. IN MEMORIAM

As the first order of business, the names of the Delegates who have passed away since the last meeting were read:

Bay County
L. Fernald Foster, M.D.
(Delegate 1933-34-35-36)
(Secretary of the Michigan State Medical Society 1937 through May, 1959)
Joseph C. Grosjean, M.D.
(Alternate 1940)

Genesee County
John T. Connell, M.D.
(Alternate 1943-44)
Southard T. Flynn, M.D.
(Alternate 1953-54)
Kendall Hooper, M.D.
(Alternate 1957)
Edwin P. Vary, M.D.
(Alternate 1949-50-51-52)

Kalamazoo County
Ralph W. Shook, M.D.
(Delegate 1949-50-51)

Marquette County
Benzoin C. Barron M.D.
(Alternate 1953-54-55)

North Central Counties
Martin A. Martzowka, M.D.
(Alternate 1945)
Gordon L. McKillop, M.D.
(Alternate 1954)

Oceana County
Fred A. Reetz, M.D.
(Alternate 1941)

Washtenaw County
Herman H. Rieker, M.D.
(Delegate 1945 through 1950)

Wayne County
Alexander W. Blain, M.D.
(Delegate 1942)
William J. Cassidy, M.D.
(Delegate 1957-1958)
Grover C. Penberthy, M.D.
(Delegate 1940-41-42-47-48-49-50-51-53-54-55)
Frank A. Weiser, M.D.
(Alternate 1941-44-45)
(Delegate 1943, 1946 through 1955)

II—1. RESOLUTION TO THE MEMORY OF L. FERNALD FOSTER, M.D.

THE SPEAKER: With your permission I should like to entertain a special order of business at this time, which is the reading of a resolution that is part of the annual report of The Council as printed in your Handbook. I shall ask Dr. Schiller, Chairman of The Council, to read the resolution.

A. E. SCHILLER, M.D.: Mr. Speaker, I would like to read a resolution in memory of L. Fernald Foster, M.D., our deceased and very much beloved Secretary for so many years.

"Whereas, at best our personal knowledge is meager and our memories short, and

"Whereas, we have had with us a man of great depth of character, high scientific attainment, and blessed with broad administrative abilities, and

"Whereas, his accomplishments have not always carried his name, for he was always one to forsake personal credit in favor of project success, and

"Whereas, to attempt to list herein his contributions to the organization and advancement of his chosen profession would be endangered by our inability to surely complete such a task, and

"Whereas, for his twenty-three years as Secretary of the Michigan State Medical Society, for serving as its President, and as the President of Michigan Medical Service he deserves rewards far in excess of any he received while on this earth or any that we can now offer; therefore, be it

"RESOLVED: That we, severally and as a body, do hereby make permanent record of our admiration and respect for L. Fernald Foster, M.D.; that we note with sorrow his untimely passing; and that we do recognize with thanks to his memory and his family the unparalleled contribution he made to the medical profession over the quarter-century that he served as an officer and leader of his beloved Michigan State Medical Society; and be it further

"RESOLVED: That a copy of this resolution be prepared in appropriate form, made a part of the minutes of this meeting, and forwarded to the many members of Doctor Foster's family."

THE SPEAKER: Thank you, Dr. Schiller.

As a special order of business I would ask for approval of this resolution by this House of Delegates.

D. I. SUGAR, M.D. [Wayne]: I so move.

[The motion was severally seconded.]

THE SPEAKER: May we have a rising vote?

[*The audience arose in respect to the memory of L. Fernald Foster, M.D.*]

At this point, Dr. W. C. Beets of Kent gave the invocation.

III. SPEAKER'S REMARKS

By K. H. Johnson, M.D., Lansing

This afternoon in East Lansing we properly laid the cornerstone for our new building. It was a very brief but very impressive ceremony, and I believe each of you has one of these little folders commemorating the event.

I would like to take this opportunity to welcome the medical students from Michigan and Wayne.

Last year I made a speech. I got it out and read it the other day, and felt it was a pretty good speech. But I don't think anybody paid any attention to it last year, so I am simply going to say this year that if you want to hear a good speech, I can find a copy for you in the minutes of the proceedings of the House of Delegates of last year.

So, all I am going to say this year is that I am sure I speak for Dr. Lightbody, the Vice Speaker, and myself when I tell you that we shall do our very best to conduct the sessions of this House of Delegates in as fair and proper a manner as it is in our power to do. I can only trust and hope that each of you in your own particular way will be proud of the actions that you have taken when it is time for this meeting to dissolve. I am equally certain that all of us sincerely hope and trust that when we have finished we may be proud of what we have to present to the public whom we serve.

The Speaker's remarks were referred to the Reference Committee on Officers Reports.

IV. PRESIDENT'S REMARKS

By G. B. Saltonstall, M.D., Charlevoix

One of the duties of a President of the Michigan State Medical Society is to address the House of Delegates at its first session.

In carrying out that duty, I find myself somewhat at a loss as to what I should emphasize. The reason for this is that there are so many facts, philosophies and concepts which could well be covered, or at least mentioned, that only by the most ruthless selection could I settle upon the comments which I felt needed most to be made.

First, I want to comment on Blue Shield's M-75 program and all of its ramifications. This subject, I am sure, will occupy a goodly portion of the time of this House, and that is as it should be. However, I hope that at no time will any member of this body feel it his privilege to cast aspersions on any member of the Michigan State Medical Society by questioning either that member's motives or character.

By virtue of his membership in MSMS, I think we must recognize that every member is a doctor of medicine and therefore is qualified scientifically and morally to be considered above any motives other than a desire to improve the service of medicine to the public and assist in the general advancement of the profession. I am sure these motives have been governing factors in the thinking of The Council, and I am equally confident that the same is true of all members of our Society.

The second subject I would like to mention might be labeled "Integration." In this regard I am not referring to racial integration nor segregation, but rather to work integration.

Many, many years ago the Michigan State Medical Society adopted the policy of integrating together its programs so that in the administration of the Society's work, full advantage could be taken by any one committee of the work and progress of every other committee.

Consequently, today the Legislative Committee takes full advantage of the scientific progress of, for example, the Committee on Prevention of Highway Accidents, or vice versa. The same is true of the Committee on Preventive Medicine or the MCI committee taking full advantage of the program of the Public Relations Committee.

The reason I mention this is because I feel this body should consider all items before it in the light of the effect any alterations or changes it recommends will have on the whole program, rather than upon any segment, because under our integrated program all segments are dependent in one way or another on every other segment. This is true both in the programming of the Society as well as in the budgeting of its funds.

Third, I would like to emphasize that the Michigan State Medical Society is a corporation—a statewide corporation. You, as members of the House of Delegates, govern the policy of that corporation. The Michigan State Medical Society is not a mere committee that federates or co-ordinates the work of county or district medical societies. It is an entity unto itself, and the county and district societies are constituent and component members of it. This will reflect itself in our policymaking.

As an artificial person, the Michigan State Medical Society has the same characteristics as a human, in that sickness or trouble in one area of the body can have strong effects on other areas. Thus, our strength as a profession in this State is based upon the whole profession, not upon any single society or single specialty or single group. To permit any action which would divide or weaken our State Society at this time is to invite the enemies of our profession to make progress at our expense.

We have had a most successful year. Our Society is in sound financial shape. Our new headquarters are growing each day. Our legislative program again scored 100 per cent. Our public relations program has received both state and national recognition for excellence.

Our scientific activities have worked to the advancement of medicine, as in the past. Our relationship with the medical schools has been particularly pleasant and profitable.

Our ancillary groups, such as the Woman's Auxiliary, the Medical Assistants, the Michigan Health Council, the Michigan Rural Health Conference, and the Michigan Association of the Professions have had unusually fine years. Their services to the Michigan State Medical Society have been most valuable.

We have had sufficient interest in the State Society activities that an unusually large number of members have participated in its programs, and are watching with interest the deliberations you will make here in this 1959 session. I wish you all success and all wisdom.

I assure you it has been a pleasure and an opportunity to serve as your President. It has made me proud to work with a group of men as dedicated as The Council members, the committee chairmen and members, and our staff.

I thank you for this favor. I have tried to deserve it. *(Applause)*

The Speaker: The President's Address will be referred to the Reference Committee on Officers Reports.

V. PRESIDENT-ELECT'S REMARKS

By M. A. Darling, M.D., Detroit

This year, for your President-elect, has been a series of revelations. Becoming more familiar with state medical problems, more aware of the loyal assistance of an invaluable group in the Lansing and Detroit offices, conferring with dedicated Council members for whom time has no limitations, have assured me that, as an officer with many responsibilities, I need have no fear.

To my predecessor, Dr. Saltonstall, I am deeply indebted for his unfailing consideration. That I shall carry out the mandates of my office is my most earnest desire.

This will be a year that sees the realization of our hopes for an adequate Society headquarters at East Lansing. Foresight and months of planning materialized today in the laying of the cornerstone. Those who could attend were enthusiastic in their approval of its architectural and utilitarian design, which will answer our long-felt needs.

The Public Relations Counsel and executive staff are working constantly to develop and maintain cordial professional relations. Minutes of Council transactions necessarily are abstracted, however, and thereby may create misinterpretations.

Two procedural changes, recently enacted, should alleviate some of these criticisms. To the best of my knowledge, there are no secrets. Any member of this Society is not only privileged but is urged to make inquiry about any matter of which he is in doubt.

There continues to exist an urgent need for reviewing all Michigan State Medical Society activities, which in essence means our committee projects since the Michigan State Medical Society is a "committee organization." In order to keep our Society a leader among state medical societies, constant research for improved service to the public and our members is necessary.

The educational and scientific work of this Society is performed by committees. The countless manhours of labor devoted to its affairs, together with sacrifice of time from home and business, beggar description. Perusal of the attendance records marks them as dedicated men and women to whom the Society owes unfailing gratitude.

Early in the year a letter was sent to officers, committee chairmen and county society secretaries, requesting pertinent information and recommendations from local sources. The response was most disappointing; yet I feel this method should produce the best results. I strongly urge every delegate to make it his personal duty to follow through with his society officers in supplying this information.

Recognition also must be given to the invaluable service rendered our Society by the Woman's Auxiliary. As liaison between us and the public in communities throughout the State, they have proven their worth time and time again. Their contributions through T.B. speaking contests, nursing scholarships, AMEF assistance —even the proposed furnishing of a room in our new headquarters—are symbolic of their efforts to further our interests. We can take great pride in their long list of achievements.

Less than two decades have elapsed since the House of Delegates gave birth to Michigan Medical Service. During the interim, it has grown from an apnoeic infant to a gargantuan giant, including approximately one-half the population of this State. During these years, Michigan Medical Service has paid to the doctors of medicine in this State more than 275 million dollars for medical and surgical services rendered to its subscribers. Probably no other single act of this Society has met with such universal approval by our citizens.

However, during infancy and adolescence of Michigan Medical Service, greater emphasis was placed on expansion and sales promotion and, unfortunately, less emphasis on structural alterations necessary to meet changing medico-economic conditions. During that time, we have fought two wars: our national debt has risen from some 40 billion dollars to 285 billion dollars, and simultaneously a corresponding devaluation of the dollar in its purchasing value of goods and services has occurred.

Since the depression era of the thirties an entirely new concept—a laissez-faire attitude, which envisions personal security—has become general. The philosophy of "rugged individualism," under which most of us were raised, implied one's personal responsibility for himself and his dependents, but now is supported by a rapidly diminishing minority.

In 1956, lightning struck! The Council appointed a special committee (Slagle) and the House of Delegates also appointed a special committee (Owen). Each committee was instructed to make special studies and to report to the 1957 House of Delegates. The work of these two committees necessitated a special meeting of the House of Delegates in 1957. Feeling that additional information still was needed, an opinion survey of the public and the profession was authorized. All of these reports were submitted to the 1957 session of the House of Delegates.

After much discussion, the concepts as well as the basic structure of the original Michigan Blue Shield were altered. What we now know as M-75 was developed in principle, to be sold to the public. As yet, conversion is not complete but substantial progress has been made.

From March 1, 1940, and ending December 31, 1958, Michigan Medical Service paid to:

Physicians of Michigan	$279,000,476.35	(87.53%)
Out-of-State Doctors	7,348,627.27	(2.31%)
Osteopaths	32,400,027.63	(10.16%)
Total	$318,749,131.25	

Of this sum only eleven counties, percentage-wise, received more than 1 per cent:

Wayne	41.58%
Genesee	6.47%
Oakland	5.68%
Kent	3.91%
Washtenaw	3.67%
Ingham	3.34%
Saginaw	3.04%
Macomb	1.58%
Bay	1.50%
Kalamazoo	1.18%
St. Clair	1.13%

The remaining counties ranged from under 1 per cent to a minute fraction of 1 per cent. It is obvious that major utilization is restricted to highly industrialized areas. And, paradoxically, it is in these same areas that the physicians, who perforce must serve these contracts, are most critical.

These remarks are not to be construed as disparaging to the remaining seventy-two counties. It is obvious that a fraction of 1 per cent of 279 million dollars might have a considerable economic impact on less densely populated areas.

1959—Then came the deluge!

The preponderance of evidence strongly indicates that, for the foreseeable future, prepaid medical care insurance is demanded by the public. Some will argue that the only alternative is compulsory health insurance.

This, briefly, summarizes the situation confronting the Michigan State Medical Society today. May I quote from John Locke, who in 1687 made this pertinent observation: "The degree of assent we give to any proposition should depend upon the grounds of probability in its favor."

The solution, gentlemen, is yours. *(Applause)*

THE SPEAKER: The remarks of the President-elect will be referred to the Reference Committee on Officers' Reports.

As you know, with the death of Dr. Foster, Dr. Wiley was elected for the unexpired term as Secretary of the State Society. Dr. A. E. Schiller was made Chairman of The Council to succeed Dr. Wiley. Dr. Schiller will report to you the annual and supplemental reports of The Council.

VI. REPORTS OF THE COUNCIL

By A. E. Schiller, M.D., Detroit

This morning at nine o'clock a television show introducing this meeting was presented over WJBK-TV. Channel 2, which featured the Chairman of The Council and Dr. Lightbody, the Vice Speaker. We hope it found favor in the eyes of the public and gave them a little information about this tremendous meeting.

The annual report of The Council is printed in the Handbook of Delegates beginning on page 48. You have all been supplied with the Handbook. Any of the information therein which you would like amplified will be amplified by the Chairman of The Council and the committees of The Council for your edification and, we hope, to your satisfaction. To save your time we will not report on it.

The Council wishes to present the following Supplemental Report, as of September 27, 1959:

1. *Membership.*—On September 1, 1959, the membership of the Michigan State Medical Society totaled 6,638 as compared with the total of 6,381 at the same time last year.

2. *Finances.*—

FINANCIAL REPORT FOR PERIOD ENDING AUGUST 31, 1959

Account	On hand 12/1/58	Income to 9/1/59	Expenses to 9/1/59	Balance on Hand 9/1/59
General Fund	$175,021.34	$158,894.55	$130,362.62	$203,553.27
Annual Session	———	32,155.00	8,449.78	23,705.22
Michigan Clinical Institute	———	13,585.00	16,213.63	2,628.63Cr.
THE JOURNAL	———	112,023.66	97,502.30	14,521.36
Public Education	17,677.72	53,364.57	40,823.91	30,218.38
Public Service	5,409.09Cr.	25,883.99	22,670.07	2,195.17Cr.
Professional Relations	2,463.45Cr.	35,961.49	33,532.14	34.10Cr.
Public Education Reserve	91,165.25	8,628.01	———	99,793.26
Rheumatic Fever Control	1,879.18	6,825.00	4,310.55	4,393.63
Surplus from Dues	53,614.34	———	———	53,614.34
Building Fund	22,195.41	———	3,582.75	18,612.66
MSMS Headquarters Fund	85,373.04	57,826.48	76,121.54	67,077.98
TOTALS	$439,053.74	$505,147.75	$433,569.29	$510,632.20

3. *Michigan Medical Service.*—An up-to-date report on this Corporation, including the finances, will be presented to you at the meeting of Michigan Medical Service membership on Tuesday, September 29, 1959 at 2 p.m. in the Ballroom of the Pantlind Hotel, Grand Rapids. All MSMS delegates are members of Michigan Medical Service Corporation and are expected and are urged to attend this important annual meeting—which will be preceded at 12:30 p.m. by a reception and luncheon with the compliments of Michigan Medical Service.

4. *Michigan's Foremost Family Physician of 1959.*—Selection of one of our Michigan general practitioners as nominee for the AMA Gold Medal Award is the privilege of the MSMS House of Delegates. According to established procedure, the field of nominees has been narrowed by The Council to three, from which the House of Delegates elects one. The three nominees are:

(a) Archer A. Claytor, M.D., Saginaw
(b) Simon Levin, M.D., Houghton
(c) Siegfried W. Thieme, M.D., Ravenna

5. *MSMS Group Insurance Programs.*—(a) Group Health and Accident Plan. The report to September 1, 1959, supplied by the carrier (Provident Life and Accident Insurance of Chattanooga, Tennessee) is as follows:

While payments for loss of time continues to increase, so does participation.

For the reason above, plus the fact that no accidental death benefits were payable in the past year as opposed to five in the previous two years, underwriting results were the most favorable since the inception of the Plan.

In view of these favorable results, Provident will add a 10 per cent bonus to all loss of time payments made during the policy year beginning November 15, 1959.

Due to increasing interest in the plan and resultant increase in participation, it is to be hoped that a similar bonus can be continued in the future.

(b) Group Life Plan. The supplemental report to September 1, 1959, supplied by the carrier (Mutual Benefit Life Insurance Company of New Jersey) indicates that the total of subscribers is 1,150 and that four death claims amounting to $26,000 have been paid. The fifth invitation to all members to take advantage of this opportunity was mailed September 21, 1959.

6. *New Home of the Michigan State Medical Society.*—The cornerstone of the new building was laid with appropriate ceremonies in East Lansing this afternoon (Sunday, September 27, 1959). The present progress of the building indicates that it may be in use as early as May, 1960. The Council recommends that the formal dedication be scheduled with appropriate ceremonies on September 25, 1960, the Sunday preceding next year's annual session of the Michigan State Medical Society.

The detailed story of our beautiful modern structure is being told, in monthly installments, in our JOURNAL. However, the Chairman of the Big Look Committee, W. S. Jones, M.D., has some important matters to report to you, and I respectfully request, Mr. Speaker and members of the House of Delegates, that you grant Dr. Jones five minutes to present you with an up-to-date summary. He is ready to give his information immedi-

ately following the reading of this Supplemental Annual Report of The Council.

7. *IBM History (Biographical) Cards of MSMS Membership.*—It is a pleasure to report that as of September 1, 1959, 3,257 of these history cards have been returned by MSMS members. The Council is grateful for this splendid co-operation, and recommends that members of the House of Delegates use their influence so that a 100 per cent return of these valuable data will be achieved by the end of 1959. Another appeal will be sent to all MSMS members before the end of the year. Personal contacts by delegates in their own localities will be most productive.

8. *Councilor Changes.*—(a) D. Bruce Wiley, M.D., Councilor of the Fifteenth District, resigned to assume his duties as Secretary of the Michigan State Medical Society. The Council placed on its minutes a vote of high thanks to Dr. Wiley for his long-time activity on behalf of the Society. Dr. Wiley has served on The Council since October, 1950.

(b) Ralph W. Shook, M.D., Councilor of the Fourth District, died suddenly on August 9, 1959. He had been a member of The Council since October, 1951, and brilliantly served three years as Chairman of the Finance Committee. He devoted much time to the Michigan State Medical Society; his counsel and his friendship will be seriously missed.

9. *M.D. Relations with Osteopaths.*—The House of Delegates of the American Medical Association, at its June, 1959 session, approved the following mild liberalization of rulings relative to teaching of and consulting with osteopaths:

1. "It shall not be considered contrary to the Principles of Medical Ethics for doctors of medicine to teach students in an osteopathic college which is in the process of being converted into an approved medical school under the supervision of the AMA Council on Medical Education and Hospitals.

2. "All voluntary professional associations by the doctors of medicine and those who practice a system of healing not based on scientific principles are unethical.

3. "The House of Delegates recommended enactment of Medical Practice Acts requiring all who practice as physicians and surgeons to meet the same qualifications, take the same examinations and graduate from schools approved by the same agency.

4. "A liaison committee was recommended, to be appointed by the Board of Trustees of the AMA, to meet with representatives of the American Osteopathic Association, if mutually agreeable, to consider problems of common concern including interprofessional relationships on a national level."

Based on the recent AMA decision, The Council of the Michigan State Medical Society disapproved the inclusion of other than doctors of medicine in Michigan's extramural postgraduate teaching program of which the Michigan State Medical Society is one of the sponsors.

10. *Deadline for Payment of MSMS Dues.*—Last July the Wayne County Medical Society requested The Council to consider this deadline question, particularly acute in Wayne County where some members pay their dues in instalments. The MSMS Bylaws (Chapter 16, Section 2) state: "Any member in arrears after April 1 of each official year shall stand suspended until his name is properly recorded," *et cetera.* (The deadline date for payment of AMA dues is June 30.) The disadvantages of a new system allowing partial payment of MSMS dues are:

(a) Any such change in the Bylaws must be applicable to all fifty-five components, and as of June 30 each year, the number of unpaid members could easily be 300 to 500 rather than the current number of approximately 100. The reduction in receipts on June 30, could be as high as $30,000. Under the present IBM system, each year as of June 30, more members have paid their dues than previously, such as:

No IBM		*With IBM*	
1954	4,684	1957	5,291
1955	4,976	1958	5,435
1956	5,231	1959	5,605

(b) Handling of partial payments for what might be large numbers of members would probably necessitate the hiring of additional office personnel and a change in the record system involving added expense to the dues collection costs of MSMS.

(c) Currently, the State Society, due to the accelerated income during the early months of the year, invests the funds not currently needed in short-term notes or time certificates, and earns approximately $1,000 per year in interest, which under a partial payment system would be lost.

(d) The American Medical Association invites attention to the fact that membership in the county and state medical society is a requirement for membership in the AMA. With unpaid state society dues, a physician cannot be a member of the AMA and would be dropped by the AMA on June 30.

Frankly, for years The Council has been lenient in its interpretation of delinquency, and no one has been suspended if his dues are paid as of June 30. Our recommendation is that the Bylaws be changed in Chapter 16, Section 2 to agree with the AMA time limit of June 30.

A recommendation on this subject follows.

11. *Additional Annual Reports of Committees of The Council*

Report No. 29—Committee on Awards.—During the past year the Committee on Awards has carefully reviewed possibilities for public recognition by the Michigan State Medical Society of outstanding work done in behalf of the health of the people of Michigan and the medical profession. As a result, during the past year we have recommended the citations noted below. The recommendations were formally approved by The Council and the awards were publicly presented.

At the Michigan Clinical Institute:

1. Seven MSMS members serving as presidents of national medical organizations: J. Edward Berk, M.D., Detroit, President, American Gastroscopic Society. C. Leslie Mitchell, M.D., Detroit, President, American Orthopedic Association. Herman K. B. Pinkus, M.D., Monroe, President, Society for Investigative Dermatology. John W. Rebuck, M.D., Detroit, President, International Reticulo-Endothelial Society. Lawrence Reynolds, M.D., Detroit, American College of Radiology. W. H. Steffensen, M.D., Grand Rapids, President, American Society of Plastic and Reconstructive Surgery. John M. Wellman, M.D., Lansing President, Frederick A. Coller Surgical Society.

2. Distinguished Health Service Awards were presented to two Michigan Legislators: Senator Frank Andrews, Hillman, and Representative Willard I. Bowerman, Jr., Lansing; also to Mr. Jay C. Ketchum, Detroit, former Executive Vice-President and General Manager of Michigan Medical Service. To two newspapers: The *Adrian Daily Telegram* and *The Kalamazoo Gazette.* To television Station WJBK-TV. To five radio stations: WABJ, Adrian; WCBY, Cheboygan; WHLS, Port Huron; WKAR, East Lansing, and WMTE, Manistee.

Although not within the scope of this Committee's responsibility, the Committee nonetheless recognized with pleasure the election of Fred J. Drolett, M.D., Lansing, as Michigan's Foremost Family Physician of 1958. The Committee was also pleased to note that seventeen MSMS members, representing 850 years of medical service, were presented with the Fifty-Year Award this year, and the Biddle Lecturer was Henry L. Bockus, M.D., Philadelphia, Pennsylvania.

Report No. 30—Committee on National Defense.—During the past year the Committee on National Defense has held two meetings. At each of these meetings representatives of the Michigan Office of Civil Defense, the Michigan Department of Health, Michigan State Dental Society, Michigan State Nurses Association, Michigan Hospital Association, Michigan Veterinary Association and the Office of Civil and Defense Mobilization have been present to aid in the co-ordination of plans for the defense and care of the people of Michigan.

A Disaster Plan for Pregnant Women was developed and will be distributed to all members of the Michigan State Medical Society during the coming year. A series of articles has been prepared for the October, 1959 issue of the State Medical JOURNAL. The medical portion of the Michigan Survival Plan has been rewritten and updated through the co-operation of the members of the Committee and Dr. Douglas Fryer of the Michigan Department of Health.

Progress is being made in the development of training plans for the Civil Defense emergency hospitals, fifty-seven of which are pre-positioned throughout the State in nontarget areas.

At the June, 1959 meeting, representatives of the Tenth Air Force from Selfridge Field were present, as well as representatives of the Ninth Naval District. These guests briefed the Committee on plans of the military in this area with regard to care of their civilians in case of any emergency. It is the feeling of the Committee that this liaison will be of great assistance in future planning for national defense in Michigan.

The Committee feels that for further expansion and activation of local national defense units a co-ordinator for the program should be secured, attached to the Michigan Office of Civil Defense or the Michigan Department of Health. It is recommended that the MSMS urge the appropriating authority in the State government be urged to make funds available for this important purpose.

The Committee has continued to maintain awareness of the constant changes in the planning for national defense. Planning for biological and chemical warfare needs to be considered.

Appreciation and thanks are extended to Mr. Ralph Sheehan, Director of the Michigan Office of Civil Defense, and his staff for their attendance at each meeting and their sincere efforts and valuable assistance to the Committee.

Report No. 31—MSMS Representatives to Michigan Cancer Co-ordinating Committee.—The Michigan Cancer Co-ordinating Committee met three times during the past year, with its next meeting scheduled for September 24, 1959. In addition, its Subcommittee on Cancer Registries met twice.

The most significant action of the Michigan Cancer Co-ordinating Committee was the formulation of a special plan for a Central Cancer Registry in Michigan. The function of a Central Cancer Registry is defined as: "A basic tool for studying the magnitude and nature of the cancer problem and for measuring the effectiveness of control measures, and to integrate and foster the development of hospital registries."

The recommendations of the Michigan Cancer Co-ordinating Committee to establish this pioneering Statewide Central Cancer Registry, made on May 21, 1959, were:

"1. That the Michigan Cancer Co-ordinating Committee serve in an advisory capacity to such a Registry.

"2. That the function of the present Michigan Tumor Registry be enlarged to include a Central Cancer Registry.

"3. That the name of the Michigan Tumor Registry then be changed to 'Michigan Cancer Registry.'

"4. That the Administrative Committee of the Michigan Tumor Registry be enlarged to not more than fifteen members and be made more representative.

"5. That the enlarged Administrative Committee be made the operating committee of the Michigan Cancer Registry.

"6. That the Michigan Cancer Co-ordinating Committee respectfully requests the American Cancer Society to make available the services of Dr. B. Aubrey Schneider and his staff in the development of a plan for the establishment and operation of such a Registry."

The second major activity of the MCCC during the past year was its anticancer quackery work, under the chairmanship of B. E. Luck, D.D.S. This included the showing of a new scientific exhibit on this subject to numerous professional and lay groups, and the development of a popular leaflet, "Beware of the Cancer Quack," which already has been printed to the total of 150,000 copies.

As part of its three-pronged attack on cancer (through education, service, research), the MCCC sponsored an active program of educational promotion, especially to doctors of medicine, during the past year. Chief promotions in this column were:

1. A Cancer Number of THE JOURNAL of the Michigan State Medical Society (April 1959), with the cover featuring the fighting phrase, "Every Physical Examination A Cancer Detection Procedure." A "Cancer Comment" page appeared bimonthly in THE JOURNAL. In addition, a cartoon series called "C. A. Conshus, M.D.," has been borrowed from the *Pennsylvania State Medical Journal* and is being reprinted in JMSMS for twelve issues.

2. A second scientific exhibit on "Management of Patient with Positive Smear" is a feature of the MSMS Annual Session in Grand Rapids, 1959.

3. The Michigan Cancer Co-ordinating Committee Lecture is presented annually at the Michigan Clinical Institute. The 1959 Lecture was presented by Wendell G. Scott, M.D., of St. Louis, on "Recent Developments in the External Irradiation of Malignant Disease."

4. The Cancer Luncheon, held during the Michigan Clinical Institute, continues to be a source of good professional education and public relations.

5. The MCCC feels an excellent approach to the doctor of medicine is through hospital staff meetings with the "detail man" type of contact, that is, to go to the hospital staff meetings and set up a cancer exhibit. The MCCC suggests that a pilot experiment along this line of professional education be made by the American Cancer Society in Michigan.

6. The Cancer Manual (for high school teachers) and the leaflet, "Strength Through Unity Against Cancer," which explains the functions and purposes of MCCC, were broadly distributed in Michigan and elsewhere during the past year. The latter booklet is being enlarged to present more in detail the work of the six organizations representative on the MCCC.

7. The MCCC sponsored the following seven speakers at the District Trading Schools of the Michigan Division, American Cancer Society, during the past year: William B. Kirtland, M.D., Detroit; Joseph A. Preston, M.D., Jackson; Harold L. Fachnie, M.D., Detroit; H. B. Latourette, M.D., Ann Arbor; Dale L. Kessler, M.D., Grand Rapids; Walter A. Stryker, M.D., Wyandotte, and Arthur H. Joistad, M.D., Muskegon.

Your representatives to this Committee feel that in less than six years the one central organization (MCCC) formed to control cancer in this State has drawn important efforts together in a unified onslaught against this disease. With this unified pool of knowledge, state-wide cancer matters are handled more aggressively and effectively. There is little lost motion and duplication of effort. The talent, money, service and facilities of every organization are being used to best advantage.

The work assignable to the MSMS Cancer Control Committee is being well handled by the MCCC. The Michigan Cancer Co-ordinating Committee, with H. M. Nelson, M.D., Detroit, as Chairman, is composed of the American Cancer Society in Michigan, the Michigan

Department of Health, the Michigan Health Officers Association, the Michigan State Dental Association, and the Michigan State Medical Society.

Report No. 32—Committee on Alcoholism.—The 1958 House of Delegates instructed The Council to establish this Committee to study the problem of alcoholism, and added "that this Committee's findings be reported by The Council to the next Annual Session of the House of Delegates."

The Committee on Alcoholism recommends that it be authorized to proceed with the following program:

I. *Program of Education*
   1. Education of Medical Students by stimulation of increased teaching in medical school curricula.
   2. Education of doctors of medicine in practice by:
      (a) Articles and material in MSMS Journal.
      (b) Scientific exhibits.
      (c) Pamphlets for distribution at medical conventions.
      (d) Talks on the MSMS extramural program.
      (e) Talks at the Michigan Clinical Institute and at the MSMS Annual Session.
      (f) Recommend talks and use of films on alcoholism at county medical society meetings and at hospital staff meetings.
      (g) Co-operate with the industrial physicians (through the Industrial Medical Association) in problems of alcoholism in industry.
   3. As a long-range program, help inform the public by:
      (a) Giving advice to the Michigan State Board of Alcoholism (as it is requested).
      (b) Development and use of a speakers' bureau to stimulate and present talks to service clubs and similar organizations.

II. *Promotion of facilities for treatment of alcoholics*
   1. In- and outpatient care program (similar to the Genesee project).
   2. Investigate and promote admission of alcoholics to general hospitals.
   3. Promote creation of committees on alcoholism by county medical societies, where feasible.
   4. Work toward increased facilities for treatment of alcoholics in State hospitals.

III. *Promote and stimulate research on all aspects of the alcoholism problem.*

Further, the Committee on Alcoholism respectfully recommends that, in view of the gravity of the problem, permanent status be granted to this Committee to continue its studies and findings.

12. *Informing our Members.*—Before coming to its "Recommendations," The Council wishes to itemize some of the means and media it uses to bring information to the Society's fifty-five components and to all members. Factual information on what The Council does is disseminated liberally and consistently through:

1. Annual Report (and Supplemental Annual Report) of The Council, published in THE JOURNAL of the MSMS. Also periodic Secretary's Letters and Legislative Bulletins.

2. Feature articles and the monthly "Highlights," which chronicle specific actions of The Council and its Executive Committee, published in THE JOURNAL. Incidentally, these "Highlights," written immediately after each meeting, are available to county society secretaries upon request.

3. Councilor Conferences, held in all the districts during July, August and September. Annually the local Councilor presents detailed information on many important activities coming before The Council, such as (a) Annual Report of The Council; (b) Quarterly Reports to Delegates; (c) Current Legislation (such as annual M.D. registration law, and the new 30-day billing clause in the Michigan Crippled-Afflicted Children laws, etc.); (d) MSMS group insurance programs; (e) Activities of the new Michigan Association of the Professions.

4. County Secretaries-Public Relations Seminar. This is a two-day informational course attended by over 200 leaders of our State and county medical societies. Anyone who has been present at this annual conference knows that no information important to the profession is withheld. The Editor's Workshop also is scheduled coincident with the County Secretaries' Seminar, with more factual data supplied to our disseminators of the written medical word.

5. A special one-day informational panel is arranged by The Council for our County Society Executive Secretaries. This is productive of much two-way understanding.

6. Finally, the annual meeting for new committee chairmen is a method The Council has used for years to disseminate specific information on what the Society is doing, and, with the help of its committees, hopes to do for the benefit of all MSMS members and the people they serve.

In addition to the above program, which is being constantly improved and augmented, The Council, week in and week out, supplies added and detailed information (including legal opinions) to county societies and individual members. This service always has been and will continue to be given, rapidly and completely, in accordance with legislative limitations and high ethical standards.

13. *Recommendations.*—We respectfully invite your attention to the four recommendations in the original Annual Report of The Council, printed in the Handbook on page 83. They read as follows:

1. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1960, on the occasion of the Annual Michigan Day, as recommended for many years by the House of Delegates.

2. That The Council be authorized to arrange Councilor Conferences, prior to the Annual Session, to continue communication with and impart information to the membership, as during the past two years.

3. That an evaluating team visit those county medical societies that request same. This team would review county medical society activity as compared with good organizational practice and make recommendations for improved organization, administration and services, with the end in mind of increasing the strength of county medical societies and improving their public relations potential. This survey would be made only on request by the county medical society. The evaluating team would consist of state and county officers plus state staff members and such other outside experts or advisers as the evaluating team deems necessary. Upon completion of the evaluation, concrete recommendations would be offered.

4. That during the months of October and November 1959, a team of MSMS speakers arrange an itinerary whereby it may efficiently cover a major portion of the Lower Peninsula. Said team would report on the actions of the House of Delegates, the plans for the future of MSMS, and would attempt to stimulate organizational and public relations awareness on the part of county medical societies and individual M.D.'s. The Upper Peninsula would receive the same service in the spring of 1960.

The Council respectfully submits the following additional recommendation:

5. That the House of Delegates give favorable consideration to changing the Bylaws in Chapter 16, Section 2 to read: "Any member in arrears after June 30 of each official year shall stand suspended," et cetera.

Respectfully submitted by The Council:
A. E. SCHILLER, M.D., *Chairman*
O. B. MCGILLICUDDY, M.D.
H. J. MEIER, M.D.
C. ALLEN PAYNE, M.D.

H. H. Hiscock, M.D.
C. N. Hoyt, M.D.
E. S. Oldham, M.D.
D. G. Pike, M.D.
O. J. Johnson, M.D.
W. M. Lefevre, M.D.
B. T. Montgomery, M.D.
T. P. Wickliffe, M.D.
B. M. Harris, M.D.
G. Thomas McKean, M.D.
W. W. Babcock, M.D.
William Bromme, M.D.
K. H. Johnson, M.D., *Speaker*
J. J. Lightbody, M.D., *Vice Speaker*
G. B. Saltonstall, M.D., *President*
Milton A. Darling, M.D., *President-elect*
D. Bruce Wiley, M.D., *Secretary*
W. A. Hyland, M.D., *Treasurer*
G. W. Slagle, M.D., *Immediate Past President*

The Council's Fourth Quarterly Report to Delegates

To: Every Delegate to the Michigan State Medical Society
From: The Council of MSMS, A. E. Schiller, M.D., Chairman

September 27, 1959

The 1958 House of Delegates instructed that quarterly reports be sent to House members informing them on the progress made in the continuing development of the Seal of Assurance Plan. This is the fourth report.

1. *Participation in the MSMS Seal of Assurance Plan.*—Since the June 30 quarterly report there has been a net gain of 169 signed Enrollment Authorizations received in the MSMS headquarters, bringing the total number of participating physicians to 4,588.

2. *Michigan Relative Value Study.*—The Relative Value Study Committee has submitted to The Council its recommendations regarding the methodology of the study to be conducted among all members of MSMS. At its September 27 meeting, The Council acted upon these recommendations and the study will proceed as soon as possible.

3. *Revised Uniform Fee Schedule for Governmental Welfare Agencies.*—As reported in the last quarterly report, the new schedule is an augmented version of the M-75 Plan A ($2,500) schedule. It will be used until the Relative Value Schedule is completed. Distribution to all M.D.'s will begin in early October when delivery of the pamphlets from the printer is scheduled.

4. *Development of New Contract Offerings.*—Following months of work and study, four new contracts have been approved for offering to the public. The new contracts are variations of the M-75 contract tailored for specific groups:

1—Senior Contributory Benefit Certificate (persons over sixty-five years of age; M-75-6).
2—Employment Group Deductible Benefit Certificate (M-75-3).
3—Group Conversion Deductible Benefit Certificate (M-75-4).
4—Non-Group Community Enrollment Contributory Benefit Certificate (M-75-5, persons under sixty-five).

The contracts follow the principles of medical care coverage previously approved by the House of Delegates. Copies of the contracts have been sent to all doctors of medicine.

5. *Councilor District Medical Care Insurance Committees*—Several CDMCIC groups have met during the past quarter to consider medical care insurance matters. CDMCIC machinery for the handling of complaints and suggestions from patients, doctors and others is being perfected. The MSMS Council and its County Societies Committee have approved a set of ground rules to provide for referral of all appropriate matters (such as ethics and mediation) to county societies. This will avoid duplication and overlapping of effort. Several CDMCIC chairmen have indicated that they will hold fall meetings after the House of Delegates session.

A. E. Schiller, M.D. *(continuing)*: I also would refer you to a little pamphlet dated September 21. This is an explanation of the documentary reports of the activities of the House of Delegates and The Council, the Executive Committee and the Commission on Medical Service, the Committee to Study Comprehensive Insurance Plans, the Care Insurance Committee, the House Advisory Committee on Fees, Relative Value Committee, and Committee to Decide Feasibility of Greater Participation in Blue Shield. I recommend the reading of this.

We also have prepared for your perusal and background information a report on the voluntary prepayment program for persons over age sixty-five with low family income. *(Applause)*

The Speaker: The annual and supplemental reports of The Council will be referred to the Reference Committee on Reports of The Council.

Supplemental Report of Committee on Big Look

W. S. Jones, M.D. [Menominee]: Just twenty-four years ago, when the Michigan State Medical Society moved its headquarters to Lansing, we ended that year (1935) with a membership of 3,543. The Society had two very small rooms in the Olds Tower, Lansing, just room enough for the Executive Director, a bookkeeper and a stenographer.

The Society grew gradually until after World War II, when the membership spurted. Our present high is close to 6,700 members, including all classifications. More help was needed, and the problem was to house them. So, in 1951, the Society purchased and moved into an old home at 606 Townsend, Lansing. There, with close to 6,000 square feet on three floors and basement, it considered itself in adequate quarters for the next fifty years.

But the service instructed by the House of Delegates and The Council demanded more employees, and 606 soon was bursting at the seams. A Committee on Big Look was formed three years ago to consider the problem and to study ways and means of securing more space—even, if necessary, to erecting a new headquarters building.

You know the rest. Our report was presented to the 1957 House of Delegates, and we were authorized to find a site and build a modern MSMS headquarters. We found the most ideal location in the whole metropolitan Lansing area, located in East Lansing, next to Whitehills Estates—a restricted, high-class neighborhood.

With the approval of the House of Delegates we hired one of the best architects in the world, M. Yamasaki and Associates. Last year the House of Delegates saw Mr. Yamasaki's mock-up of his beautiful plans, and gave approval to go ahead with the erection of the new MSMS headquarters.

The building was to be financed by a $50 addition to MSMS dues, $10 payable in 1958, $10 in 1959, $15 in 1960, and $15 in 1961. This, added to the $28,000 which existed in the building fund as of January 1, 1958, totals approximately $315,000. Sale of the 606 Townsend property should bring something like $75,000.

The estimate of the cost of the new MSMS building, with figures developed with the help of the architect, is $602,295.87, including $535,000 to the three contractors, $34,775 architect's fee, $12,000 for landscaping and outside lighting, $5,000 for sewer and water connections, $16,700 for the contingency fund, and $5,820.87 for insurance and performance bond.

The Treasurer was instructed by the Chairman of the Finance Committee to obtain a line of credit, which he secured at a surprisingly favorable rate of interest which will permit MSMS to borrow funds up to $300,000 if necessary, to pay for the building by May, 1960, when

it will be ready for occupancy. It will not be necessary for our Society to place a mortgage on the new building. Our statement of assets is sufficient.

The cost of furnishings will be kept to a minimum through utilization of all of the present working equipment. Your Committee on Big Look anticipates that some of the cost of the furnishings will be met by gifts. For example, the Woman's Auxiliary may furnish the "All-Purpose Room," to cost in the neighborhood of $4,000. The Past Presidents will furnish the "Presidents' Room" at an estimated $2,500. In addition, as a sign of members and friends of the Society who may be willing to contribute in their own name or as a memorial to relatives, we have received $1,000 from our JOURNAL printer, Bruce Publishing Company of St. Paul, Minnesota, for furnishings. To recognize these generous donors, a special bronze plaque will be placed in the lobby of the new building to permanently record the names of special memorials and gifts.

When completed, our new building will be a very functional building, providing room for the officers, committees and employees of the Michigan State Medical Society—those who helped to make the Society a potent force in this State. But just as importantly, it will stand as a bright monumental symbol, constantly reminding the people of this State of the work of public service done for them by their own physicians.

The building will say to all who pass by, "This is your Doctor of Medicine—up-to-date, serviceable, a part of the community, a help to all who call upon him, a credit to himself, his profession, and to the whole State."

Mr. Speaker, I should like to present this just as a member of the Committee.

I would like the privilege of reading the names of those who have contributed so much to this work. Two of them have passed on—Dr. L. Fernald Foster and Dr. Ralph W. Shook. Beside them, Dr. W. A. Hyland, Dr. K. H. Johnson, Dr. O. B. McGillicuddy, Dr. G. B. Saltonstall, Dr. G. W. Slagle, and W. S. Jones, your Chairman. *(Applause)*

THE SPEAKER: Since the Big Look Committee is a Committee of The Council, this report will be considered along with the annual report of The Council by the Reference Committee on reports of The Council.

I would like to announce that all delegates of MSMS are present and seated. We have 100 per cent attendance. *(Applause)*

(A short recess was taken.)

THE SPEAKER: We shall now hear the report of the Delegates to the American Medical Association. W. A. Hyland, M.D., Grand Rapids, Chairman.

VII. REPORT OF DELEGATES TO AMERICAN MEDICAL ASSOCIATION

By W. A. Hyland, M.D., Grand Rapids

(Dr. Hyland read his report beginning on page 80 of the Handbook for Delegates, and continued as follows)

Having completed the report of the American Medical Association sessions, I would like permission of the Speaker to spend a few moments with you discussing my feelings regarding what we can do as members of organized medicine through our membership in the Michigan State Medical Society and the American Medical Association, these thoughts being acquired by my several years' service on various committees and as a member of the House of Delegates of the American Medical Association.

Incidentally, I have been asked by the President and Executive Vice President of the American Medical Association to extend their greetings and best wishes to the Michigan State Medical Society for this annual session.

I also would like to report that Dr. Frederick Swartz, of Lansing, has performed exceptional service in appearing before congressional committees for the AMA. The AMA is most appreciative of this excellent service.

Due to organized medicine of today, never has so much been done for so many, so well.

So much is evidenced by the many advances that have been made in the scientific field of medicine and in the socio-economic aspects of medical care.

So many includes not only Americans but the people of the whole world who have benefited by the remarkable advancement in prevention, diagnosis, treatment and rehabilitation of recent years.

So well refers to the excellent training and actions of the physicians, nurses, technicians, and all others in medical allied fields. It is recognition of the modern facilities of the hospitals, research laboratories and teaching centers, coupled with the voluntary insurance groups, all of which makes for the extending of the greatest aid to the ill that the world has ever known.

To project this into the future, I am convinced this progress will be expanded into even greater service tomorrow, and on and on.

Yes, medicine of the future is in good hands. The organized approach of today over the sporadic attention of the past portends excellent medical care for the great expansion in population that this country and the world is beginning to experience.

The widening sphere of health, as civilization is being carried into remote areas, has a firm foundation on what organized medicine has done to correlate the research of the immediate past.

However, I would lack faith in myself if I failed to state that despite all this progress and the rosy outlook for scientific medicine in the future, we face difficulties that could jeopardize our present position.

Naturally, we are struggling for freedom for ourselves and our patients in order to practice this type of medicine, but there are those who for political reasons or the "do-gooders" complex, who endeavor to get into the picture either from a self-aggrandizement position or want of power, would advocate medical service becoming a government function, thereby being embroiled in a tax, political bandwagon, or some other sort of bureaucracy that would destroy the foundations of what we are today giving the public.

Other nations have experienced this foolish and futile step, mostly to their sorrow. One has only to visit such countries to realize the lack of incentive and restricted achievement, resulting in marked deterioration in service. Young people in these areas are choosing other fields, research has declined, and the personal relationship of physician and patient has practically disappeared. With God's help, let us not allow this to happen here!

No doubt the growing desire of some legislators to project themselves into the medical picture with their compulsory schemes is the result of our changing social philosophy.

As you well know, many citizens today demand as their right everything they can possibly get. They little care about their own individual responsibilities and duties.

Personal security is their aim, no matter how obtained. And where can it be easier than from their patronizing uncle, Uncle Sam? If the government will furnish all the security they want, then why not jump on the gravy train, leaving no worry for the future?

Personally, I believe this can be stopped—in fact, it must be stopped, and soon. If not, then we are on our way down, from which we will be unable to recover.

How may this be changed? You can do it—in fact, you have, by your continued action in an effort to halt state medicine. The public has begun to realize it, and I believe I can see signs that public opinion in the United States has been listening to our appeal; and there is evidence that the lawmakers in Washington have been consulting the American Medical Association and their family physicians in far greater numbers than heretofore.

In Munich a year ago, at the Bavarian-Swiss Surgical Conference, there was much talk that the Socialist Party

in Germany with the development of West Germany, through the Marshall Plan since World War II, had begun to lean toward development through free enterprise.

It was interesting to read a communication from Bonn on September fifteenth of this year that the Socialist Party in West Germany had advocated in their Congress for the country to stimulate free enterprise—but, and here's an interesting face-saving gimmick, for the country to keep its eye on big business while stimulating it. It certainly is a turn-about for the second largest political group in Germany at present, after centuries of advocating state ownership.

Personally, I believe there are early signs that public opinion in our country has turned the corner—turned away from socialistic tendencies. If I am correct, we can expect our government and our laws subsequently to show the effects of this change.

But what is the outlook for American medicine under the circumstances?

I am confident it can be good.

I do not wholly subscribe to the theory that political medicine is inevitable if we continue to assert proper leadership. For any physician to think so, I believe, is psychologically bad and tactically unsound.

I have faith that a sufficient number of thoughtful men and women realize the value of freedom and will defend it adequately.

I believe that the system of private medical practice can be preserved and that it can serve even more fully the needs of a dynamic society in the future.

I have confidence that a majority of Americans believe in voluntary action regarding personal health care, and I would hope that more and more Americans will oppose compulsory systems—whether it involves medical care or any other area affecting their personal lives.

Nevertheless, I think that we in medicine and those within the sphere must maintain the proper vigilance—not only as groups of associations but also as individual members of the profession.

Vigilance by the American Medical Association, the Michigan State Medical Society or the county medical societies is not enough. Each of us must have an increased concern regarding the challenge of our institutions of private practice and the necessary physician-patient freedoms. It is not in the public interest that these be disturbed or destroyed.

As individual physicians, we need to get behind the idea of voluntarism in all matters concerning the health care of the American people. As organizations, we need to support this concept with all the power at our command.

If American medicine could have accord on the single precept of voluntarism, it would have a mighty force in action for the voluntary way in health care and against the compulsory system.

Of course, your AMA has realized that there has been a great deal of splintering within the medical profession and within the allied medical groups. Obviously we need to draw closer together and to act and function as an even more effective health team and as a force for the voluntary system.

To make our own operation—the operation of the American Medical Association with its constituent groups—more effective in scientific and socio-economic activities for the physician and patient, the organization should be constantly advancing with the changes in the socio-economic picture.

In so doing, the AMA should be the stimulus that can help to bring unity to the entire group of medical associations and health organizations now existing in the medical and health care fields.

The AMA should seek cohesion within the medical profession.

It should seek greater liaison and co-operation with all groups in the health picture.

The AMA should seek smoother and greater communications within the whole health scheme and the public it serves.

In my opinion, the AMA has the stature, the experience and the resources to lead and guide in this task of getting the greatest mileage out of our scientific work, our socio-economic research, and our extensive program for the public.

Because basically it is a scientific organization, it should provide to physicians all the scientific materials it can—from topnotch annual and clinical meetings and high-quality journals to personalized information services on new drugs, therapy and research.

It should also aim to create a united, alert and dynamic Association that will serve all the profession and all the people of this country. In so doing, the medical profession and the public will become more aware of the sound, solid, enlightened job the AMA is doing.

I am convinced, as I know you must be, that the interests of the public and the profession are closely tied together in scores of health matters—whether they involve medical care, research, economics or education.

American medicine is important to our society.

I believe that physicians, their work and the work of their associations are a part of society, and certainly we must never be regarded as apart from our society.

Homer said, "He serves me most who serves his country best."

Paraphrasing that, I say: "He serves AMA most who serves his patients best."

It is also my personal wish that your AMA can develop all our idea-power and "horsepower" within the profession. Obviously, we need more and more participation at the local and state levels. Fires of enthusiasm must be rekindled at the grass roots if its activities are going to be representative of our profession.

To lead from strength, the AMA needs members who are contributing their creative thought and following it up with positive action based on understanding and insight.

To aid all the 178,000 members of the American Medical Association, the headquarters has been building a staff that has depth and proven ability in its respective fields.

In an effort to keep the operation as simple and direct as possible, the AMA headquarters staff has been organized into eight divisions:

1. Business
2. Law
3. Field Service
4. Communications
5. Socio-Economic
6. Scientific Activities
7. Scientific Publications
8. Washington Office

It is my sincere belief that medicine was never stronger in its ability to serve and to meet human needs.

Nevertheless, I know the AMA intends to improve upon that ability and to strive even for perfection.

Medicine never had more formidable adversaries, but medicine also has never had stronger friends.

I hope the AMA can win over some of its adversaries and co-operate further with its friends.

Medicine is in danger of being led, but it never has had greater opportunities for leadership.

Your AMA intends to seize these opportunities and lead—now and in the future.

Our profession has had a magnificent past; it has a remarkable present, and a challenging and engaging future. Medicine is destined to be a vital part of the texture of the future society. With your personal help—in fact, working together at all levels—the AMA can make a most valuable and significant contribution to the American health team, the public and the patients, whom all of us serve.

With all of us behind her, the American Medical Association can do this with firmness, strength and dignity. *(Applause)*

THE SPEAKER: The report of the Delegates to the AMA will be reviewed by the Reference Committee on Officers' Reports.

We now have the privilege of listening to a brief annual report of the Woman's Auxiliary, Mrs. Robert E. Reagan, of Benton Harbor, President.

VIII. REPORT OF WOMAN'S AUXILIARY TO MSMS

By Mrs. Robert E. Reagan, Benton Harbor

This has been an exciting and satisfying year for your Auxiliary. One of our members—Kathleen Mackersie of Detroit—became our National President-elect in June.

We fully expect to make a substantial contribution toward the furnishing of the All Purpose Room in your new building. As President of the Auxiliary, I had the honor and privilege of having a prediction placed in the cornerstone of that building today.

My annual report to The Council was printed in the August issue of THE JOURNAL, and I will not repeat that report in these remarks. I wish only to make one correction and to mention one or two programs very briefly. My chief purpose is to talk to you for a very few minutes about the role of the Auxiliary and how you, as delegates, can help us.

The correction: I said in my report to The Council that we had raised and had given to the American Medical Education Foundation "almost" $5,000. When we received the final figures for the year, it was $5,534.23. One of our Auxiliaries, Wayne Southern, was given national recognition at the meeting in Atlantic City in June.

As you probably know, we no longer have the sale of *Today's Health* as a project. We are being urged to continue giving subscriptions to the magazine as a community service project.

In the field of recruitment, a program which has been very vital in Michigan, we are being advised to shift our emphasis from nurse recruitment to that of the allied medical fields, such as laboratory and x-ray technologists. It is the feeling that other women's groups are aware of the nursing shortage and are doing something about it. The allied fields are better known and of more interest to us than they are to lay groups within the community.

Our primary efforts this year have been directed toward strengthening our State organization. This we have done. Our State chairmen have been well trained over the past few years, and the results show in the competent and gracious way in which they have fulfilled their responsibilities.

The President of this organization is rapidly becoming, in reality as well as in theory, a coordinator of activities within the organizations and the official representative working with many other state organizations. Even in this area, many of our contacts are made by State chairmen rather than the President, and this is as it should be. Only in our very friendly relations with our neighboring states and Ontario is the President or her representative the only official representative.

There is no way I can convey to you the responsibilities in time, energy and thought that this office now requires. All I can say is that the correspondence is endless, traveling and being away from home is just as endless, and so are the satisfactions of the job. It would be an impossible task without a patient, understanding husband at home, and the very real and solicitous help of the staff in Lansing. I do not need to name the men involved—you know them, too—but I do want to thank Helen Schulte and Jean MacDonald for doing so many things for us and always being so pleasant about it. One of the very real rewards of this Presidency is getting to know our staff people.

That is doubly true of the opportunity of knowing and appreciating your State officers. They have been wonderful to us. As I was visiting around among our neighbors it was most pleasant and reassuring to run into Dr. Walls, Dr. Slagle and Dr. Saltonstall and Dr. Darling and their wives. I know I speak for our other officers who also have gone visiting.

Over the time that I have been active in the State Auxiliary, I have become increasingly concerned over the function and role of the Auxiliary. This is where we need your thinking and your help. Since the things I am about to say project into the future, I want you to know that Louise Gay has given me permission to talk about what we might do in her year as President.

Our own members are sometimes confused as to the role of the Auxiliary, confusing it with the service aspects of, say, hospital auxiliaries. There is need for both, but we should not confuse them.

Our most important function is to represent you—our husbands—both personally and professionally to the community at large. This is a job we have placed upon us whether you or we like it or not—whether we do it well or not. As one State publication put it, we are known in our home communities, particularly the smaller one, not as Mrs. Joe Doakes but as Mrs. Doctor Doakes. What we do and say in public reflects upon you as it does upon no other profession unless it be the ministry.

We have been told time and time again by representatives of the AMA that the doctors of the country are too few in number and too limited in financial resources as compared to the forces trying to undermine them, to put up an adequate defense against the destruction of the practice of medicine as we know it, unless they make their position understood by the community through the assistance of other like-minded people and organizations. This is where we think we can be your most useful ally. Two surveys of the past few years have confirmed what we already knew—that the doctor's wife who is active in the Auxiliary is very apt to be active in many other community organizations, as well as socially. As we were told by the AMA in Atlantic City, "Never underestimate the power of the bridge table!"

We are the ones who hear the misstatements of fact, the one-sided opinions. We need to know the facts so we can add light and not heat to discussions. One of the precepts upon which I was brought up, particularly by a grandfather, was that it's better not to know so much as to know so much that isn't so. We need to know what to say. People are legitimately concerned with the cost, availability and quality of their medical care, and it doesn't help the situation when we appear to be unconcerned about it.

The AMA does an excellent job of briefing the National Auxiliary at the close of each national convention. While Dr. Hyland was speaking I recalled that Dr. Orr, in his remarks to us this year, even suggested that from now on the Auxiliary have perhaps six observers to attend all meetings of the AMA House of Delegates so that we will not only know the actions that were taken, but so we will know some of the thinking back of them, and understand how those actions were arrived at.

Our own State Society has been very understanding and helpful to us. It is at the county level, where our members are and where the work must be done, that we sometimes do not see our relationship clearly. This is where we need your help.

Please, when you go home, inquire into the state of affairs in your county auxiliary. We are just that—an auxiliary—and we on the State level have made it very clear to our constituent county auxiliaries that they are to embark on no program without the advice and consent of the county medical society. But unless you give your county auxiliaries something to do, and a sense of being important, we are going to continue losing some of our most capable women to other organizations.

To be specific, there is this whole matter of our aging population. You know, and we do too, that it is only partly a matter of medical care. I am sure all of us would agree with Dr. Saltonstall's remarks in the August issue of THE JOURNAL. You as doctors certainly are not responsible for many of the ills of the population, aged or otherwise. We, as your wives, have special knowledge and insights into this whole situation. We should be disseminating this knowledge through program and service activities of the many community organizations to which we belong. But we need to be kept informed ourselves.

Some state auxiliaries have embarked on very ambitious programs, such as home-maker services, and so on, as an auxiliary. In this State, we do not feel that should be our role. We feel that we should act as individuals, through community organizations, motivated and instructed by our special situation as doctors' wives. Perhaps we could work with your Geriatrics Committee.

There are other areas, such as Safety and Rural Health, where we think we can be of assistance. We have worked very closely with the Michigan Health Council, and very happily. We think that because of our friendly and very pleasant relations with the two auxiliaries to the Student AMA at Wayne and the University of Michigan we might be of assistance in doctor placement, particularly in the smaller towns and rural areas of the State. From our contacts with the young wives, we know that often it is the wife who is afraid to settle in a smallish community. Some of us know it is very pleasant and satisfying to live in such surroundings.

These, then, are indications of some of the areas where we think we could be of assistance both to the profession and to our communities. There is no point in being organized, except in special situations, for the sole purpose of being "social." Most of us have enough social outlets. Like any other dependent member of a body, we can become strong only by being used. We will be glad to do your detail work and your legwork. Most of us have the time and the interest; many of our members have real talent.

We want to fulfill the objectives of our organization as stated in our Constitution:

"(a) Through its members to explain the objectives of the medical profession to lay organizations interested in health education.

"(b) To assist in the entertainment at all Michigan State Medical Society conventions.

"(c) To promote acquaintanceship among physicians' families and thus foster better fellowship.

"(d) To do such work as may be approved or assigned by the Michigan State Medical Society."

For the privilege of working toward this goal, I am deeply grateful to the Auxiliary for electing me President. We hope we have fulfilled your trust in us. *(Applause)*

THE SPEAKER: The report of the Woman's Auxiliary will be referred to the Reference Committee on Officers' Reports.

We shall now listen to the annual report of the Michigan State Medical Assistants Society. Miss Donna Hislop, of Muskegon.

IX. REPORT OF THE MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

MISS DONNA HISLOP: In October, 1958, thirty-four members of the Michigan State Medical Assistants Society attended the third convention of the American Association of Medical Assistants in Chicago, Illinois. At this convention, Dr. J. W. Rice was appointed to a three-year term on the National Advisory Committee, and Miss Hallie Cummins was elected to the National Board of Directors.

Two President's Conferences were held in November, 1958, and April of this year. In Battle Creek, eighty officers and committee chairmen of component societies were in attendance to hear Dr. George Slagle speak on "Ethics of the Medical Assistant." In Port Huron, the conference was an officers' workshop.

In March, our second annual Educational Seminar was held concurrently with the Michigan Clinical Institute; 196 attended at the Fort Shelby Hotel to hear University of Michigan instructors speak on "Psychological Attitudes of the Ill Patient and How This Affects the Medical Assistant."

In April, at the Executive Board meeting of the Michigan State Medical Assistants Society, a motion was carried that an annual lectureship at the Educational Seminar would be established in the name of L. Fernald Foster, M.D., in sincere appreciation for and in recognition of the many hours he had spent in our behalf. Dr. Foster was apprised of this action.

In October of the year, four delegates and four alternates will represent the Michigan State Medical Assistants Society at the annual convention of the American Association of Medical Assistants, held in Philadelphia. Mr. Hugh Brenneman, Public Relations Counselor for the Michigan State Medical Society, will speak at the Seminar on "Leadership in Public Relations."

The Bulletin has been published quarterly. This year manuscripts and lectures from our various functions have been published.

This year marks the tenth anniversary for the Michigan State Medical Assistants Society, with fifty-two charter members participating.

The Michigan State Medical Assistants Society now has twenty-one component societies. Lenawee County will receive its charter at this annual session. Mason County and Grand Traverse-Benzie Counties have held organizational meetings. We now have 942 members, of whom 270 are new members this year.

A seminar type meeting was held in Houghton in May. This was two-fold: First, to provide for the medical assistants of the Upper Peninsula an educational program similar to the Seminar held in Detroit annually; second, to reorganize the structural make-up of the Upper Peninsula Society. In the new plan, Houghton-Baraga-Keweenaw is an organized component society, and Marquette-Alger have approval and backing of their county medical society and will receive their charter at the next annual meeting.

A new membership brochure has been printed for use in obtaining new members throughout the State of Michigan. For the assistance in composing and printing, we thank the Michigan State Medical Society.

For the first time the Medical Assistants are maintaining a booth at the scientific exhibition. We extend a cordial invitation to all members of the Michigan State Medical Society to stop in and learn who the medical assistants are and what they are doing throughout the component societies.

In addition to educational meetings in conjunction with State Medical Society meetings, in February, 1958, a three-year or six-semester pilot study inservice training course was instituted by the University of Michigan. This course was formulated with the able help and assistance of the Michigan State Medical Society, the Education Committee of the Medical Assistants Society, and the financial help of the Kellogg Foundation. Upon completion of the pilot program, published courses of study will become the property of the Education Committee of the Michigan State Medical Assistants Society to be used by that Committee as the basis for offering the inservice training program in centers throughout the State of Michigan.

At the present time, three semesters have been successfully completed with evaluation of the course by instructors after each semester. It might be interesting to note that after evaluation it was the opinion of both instructors and the Medical Assistants participating in the course, that course material should be upgraded to better fit the needs and desires of the participating students.

At the present time, the course has been considered by the American Association of Medical Assistants and

permission granted the University of Michigan and the Michigan State Medical Assistants Society to present this course to the House of Delegates in Philadelphia for possible adoption as a national inservice program.

The desire of the Michigan State Medical Assistants Society is that this program be copyrighted in the name of the University of Michigan, Michigan State Medical Society, Michigan State Medical Assistants Society and the Kellogg Foundation. We feel that the program is a good inservice training program and that proper recognition should be made.

The Michigan State Medical Assistants Society greatly appreciates the interest and co-operation of The Council of the Michigan State Medical Society. We are most grateful to the county medical societies and advisory boards for their assistance throughout the years.

May we take this opportunity to invite you to attend the functions of our tenth annual convention, held at the Manger-Rowe Hotel. We will be most happy to greet you Wednesday or Thursday of this week. *(Applause)*

THE SPEAKER: This report will be referred to the Reference Committee on Officers' Reports.

The next matter of business is the report on Michigan Medical Service.

X. MICHIGAN MEDICAL SERVICE REPORT

G. THOMAS MCKEAN, M.D. [Wayne]: It is my great pleasure to be able to tell you of a matter that somehow was left out of the Handbook. There is a meeting of the corporation of Michigan Medical Service on Tuesday at noon. The exact location will be announced later because there is a rearrangement of rooms to be made.

The annual report of the Michigan Medical Service is on page 140 of the Handbook, which report I shall not read. There are many details in the report in the Handbook.

I would like to mention that on page 142 there is mention of tentative approval of a new M-75 service contract. This is at the end of the first paragraph. Near the bottom of page 142 is a new deductible type M-75 contract, also tentatively approved by the Board of Directors of Michigan Medical Service.

On page 143, at the end of the paragraph in the middle of the page, there is a contract tentatively approved. At the bottom of that page is mention of a new certificate to be announced and an advertising campaign scheduled, which is now taking place. All of these are now firm contracts, and naturally are under way.

On page 147 is mention of a major advance in communications with the Medical Society members. A new Medical Advisory Committee will take up problems involving prolonged care, particularly individual consideration of problems. This new Advisory Committee in Saginaw County is deserving of a little special note. There is much more detail in this report from Michigan Medical Service available to you in the Handbook.

Tuesday afternoon there will be still more detail, and it will be more up-to-date and will be given to you then. For the time being I would merely like to call your attention to the report in the Handbook, and thank you for your attention.

THE SPEAKER: The report will be referred to the Reference Committee on Miscellaneous Business.

XI. SELECTION OF MICHIGAN'S FOREMOST FAMILY PHYSICIAN

Now we come to the time when the House of Delegates has the privilege of selecting Michigan's Foremost Family Physician. The Secretary, Dr. Wiley, will read the names of the three men who have been nominated, together with their biography, after which we will vote. This will be done by ballot. Please use the first ballot opposite page 96 in the Handbook for your vote.

Secretary D. Bruce Wiley, M.D., read the information on each of the candidates.

THE SPEAKER: The names of the three nominees are on the screen. I would like to appoint as tellers Drs. W. C. Beets, Homer A. Howes, Don Marshall, and Richard E. Wunsch. *(Balloting ensued.)*

THE SPEAKER: I am pleased to announce that Dr. Claytor is the choice as Michigan's Foremost Family Physician of the Year. *(Applause)*

(The meeting was recessed at 11:00 p.m.)

MONDAY MORNING SESSION
September 28, 1959

The meeting reconvened at 9:25 a.m., J. J. Lightbody, M.D., Vice Speaker of the House of Delegates, presiding.

XII. RESOLUTIONS AND MOTIONS

XII—1. KALAMAZOO STATE HOSPITAL CENTENNIAL

DONALD G. MAY, M.D. [Kalamazoo]: The subject of this resolution is "Observation of Kalamazoo State Hospital Centennial."

"Whereas, Kalamazoo State Hospital, the first public mental hospital in Michigan, has completed its 100th year of service to the State of Michigan and is observing its Centennial on September 30, 1959, and

"Whereas, a number of members of its past medical staff have made significant contributions as leaders in local, State and national professional societies, and

"Whereas, one of the first schools of general and psychiatric nursing was established there in 1892 and reorganized by Linda Richards in 1906; the first psychiatric outpatient clinic in Michigan was established there in 1915; the first school of occupational therapy in Michigan was established there in 1922, and

"Whereas, this hospital under its present leadership has kept pace with and contributed to scientific progress in the care and treatment of the mentally ill; therefore, be it

"RESOLVED: That the Michigan State Medical Society take recognition of these accomplishments by recognizing this Centennial observation."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Resolutions.

XII—2. BY-LAWS (CHAPTER 6, Sec. 6): INVESTIGATION OF MISCONDUCT

EARL G. KRIEG, M.D. [Wayne]:

"Whereas, Chapter 6, Section 6 of the Bylaws of the Michigan State Medical Society requires that disciplinary measures shall be initiated by a request of an active member or by a committee of the Society, and

"Whereas, many members are reluctant to file a complaint against another physician, and

"Whereas, a request for disciplinary measures from the Mediation Committee or any other committee requires an investigation which results in duplication of work and undue delay, and

"Whereas, complaints of an ethical nature should be handled as confidentially and expeditiously as possible, and

"Whereas, the present wording of this Section of the Bylaws is confusing and misleading; therefore, be it

"RESOLVED: That Chapter 6, Section 6 of the Bylaws be amended by rewording the first sentence: 'Disciplinary measures shall be initiated by a request of an active member or by a committee of the Society for the investigation of misconduct alleged to have been committed by a member of any component county society,' by striking out the second sentence: 'All such requests shall be in writing, signed by one or more active members of the same component county society, filed in

duplicate with the component county society, and as soon as possible shall be referred to the ethics committee of such society.'

"The amended sentence shall read as follows: 'A request for the investigation of misconduct alleged to have been committed by a member of any component county society shall be initiated by a written request from an active member, by a committee of the society, or by the patient or the individual responsible for the patient's care.' "

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Constitution and By-laws.

XII—3. FREEDOM OF CHOICE OF CONTRACT IN MMS

RALPH R. COOPER, M.D. [Wayne]:

"Whereas, Michigan Medical Service has under certain circumstances sold M-75 contracts under Plans A, B and C as 'Income not certified,' and

"Whereas, under the free enterprise system prevalent in our national economy the purchaser should have freedom to choose the type of coverage he desires, and

"Whereas, whenever he does purchase such a contract in a plan which is below his annual income, Michigan Medical Service marks such contract 'Income not certified'; therefore, be it

"RESOLVED: That the House of Delegates approves the issuance of such 'Income not certified' policies as in keeping with the American tradition of freedom of choice; and be it further

"RESOLVED: That the House of Delegates requests the Director of Michigan Medical Service to give each purchaser of its policies the option of choice of plans currently offered for sale, and that the eligibility for service benefits under a given contract be determined by mutual agreement between the physician and patient; and be it further

"RESOLVED: That The Council of the Michigan State Medical Society be directed to endorse only such contracts as embody these principles." (See amendments, page 69.)

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XII—4. MODIFICATION OF M-75 TO $5000 INCOME LIMIT

LOUIS JAFFE, M.D. [Wayne]:

"Whereas, the original purpose for the establishment of Michigan Medical Service was 'to provide low income families with a means whereby such families could obtain medical service through prepayment,' and

"Whereas, the service coverage of M-75 has exceeded this original intent by the extension of service benefits to individuals with annual income up to $7,500; therefore, be it

"RESOLVED: That the House of Delegates reaffirms its original purpose for the establishment of Michigan Medical Service, namely, to provide low-cost prepaid medical service policies for the low income families; and be it further

"RESOLVED: That the Directors of Michigan Medical Service be requested to limit service policies to an annual family income level of $5,000; and be it further

"RESOLVED: That The Council of the Michigan State Medical Society be directed to endorse only such contracts as embody this principle." (See substitute, page 64.)

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XII—5. MODIFICATION OF M-75 TO $6,500 INCOME LIMIT

J. W. RICE, M.D. [Jackson]:

"Whereas, Michigan Medical Service is fundamentally a third party for the sale of contracts furnishing physicians' services, and

"Whereas, in order to adequately represent us we must not too sharply limit this third party, and

"Whereas, an income limit of $5,000 would restrict the sale of policies to less than 50 per cent of those now having Blue Shield policies, and further we must recognize that the income group of $5,000 to $6,500 are the ones most in need of a service policy with a guaranteed fee for service; therefore, be it

"RESOLVED: That this House of Delegates directs the Executive Board of Michigan Medical Service to not sell medical service policies with guaranteed fee for service to any individuals with certified incomes above $6,500." (See substitute, page 64.)

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XII—6. HOSPITAL COMMITTEE REPORTS, PREVENT SUBPOENA

J. R. BRINK, M.D. [Kent]: This is a resolution on hospital committee studies.

"Whereas, the necessity of certain intrahospital studies by various committees of the medical staff toward the end of reducing morbidity and mortality among patients is now demanded by the hospital accrediting bodies and is in accord with continuing good medical practice, and

"Whereas, ill-advised publication of medical staff committee reports might be detrimental to the furthering of good patient care; therefore, be it

"RESOLVED: That legislation be prepared and introduced in the Michigan Legislature to deny to subpoena all hospital medical staff committee reports."

Attached is an Act passed by the South Dakota Legislature relative to this matter.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XII—7. MMS BOARD OF DIRECTORS; PUBLISH NOMINATIONS FOR

R. E. WUNSCH, M.D. [Wayne]: Subject: Nominees, Michigan Medical Service Board of Directors.

"Whereas, the House of Delegates of the Michigan State Medical Society is the corporate body of Michigan Medical Service, and

"Whereas, the selection of members of the Board of Directors of Michigan Medical Service is made by the House of Delegates annually, and

"Whereas, the delegates should have ample time to study the nominees for the Board of Directors of Michigan Medical Service; therefore, be it

"RESOLVED: That the Board of Directors of Michigan Medical Service be requested to furnish the delegates of the Michigan State Medical Society the names of the nominees to the Michigan Medical Service Board of Directors known at that time, together with a biographical sketch of each nominee two weeks prior to the opening of the Annual Session of the House of Delegates; and be it further

"RESOLVED: That the furnishing of this advance information shall not change the right of the delegates to present subsequent nominations by petition."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Resolutions.

XII—8. REAFFIRMING 1957 STATEMENT OF PRINCIPLES

F. C. RYAN, M.D. [Kalamazoo]:

"Whereas, in the past twenty-five years there has been a gradual shift of political power to the large industrial working class, and

"Whereas, the private practice of medicine is being challanged by pressures from the socio-economic climate of our time with the development of prepaid medical care plans based upon the closed panel type of practice, particularly in industralized areas, and

"Whereas, the voluntary prepayment principle based on service benefits incorporated in the Statement of Principles of Prepaid Medical Care Insurance as enunciated by the Michigan State Medical Society House of Delegates at its 1957 annual meeting is a positive, practical response to this serious challenge; therefore, be it

"RESOLVED: That the Statement of Principles of Prepayment Medical Care Insurance as approved by the House of Delegates in 1957 be hereby reaffirmed." (See substitute, as amended, page 73.)

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Prepayment Insurance.

XII—9. BYLAWS (CHAP. 16, SEC. 2) DUES DELINQUENCY DATE CHANGE

F. B. LEVAGOOD, M.D. [Wayne]:

"Whereas, there is a discrepancy in the delinquency dates for payment of dues between the component county societies, the American Medical Association and the Michigan State Medical Society, and

"Whereas, such a discrepancy in delinquent dates leaves many members of component county societies in arrears with the Michigan State Medical Society while at the same time being in good standing with their component county society and the American Medical Association; therefore, be it

"RESOLVED: That Chapter 16, Section 2 of the Bylaws of the Michigan State Medical Society be amended by striking out April 1 and substituting therefor May 15."

THE VICE SPEAKER: This will be referred to the Reference Committee on Constitution and Bylaws.

XII—10. MMS: PARTICIPATING AND NONPARTICIPATING PHYSICIANS TO BE PAID IN SAME MANNER

P. T. LAHTI, M.D. [Oakland]:

"Whereas, the Statement of Principles as passed by the House of Delegates of the Michigan State Medical Society upon which the M-75 plan is based, states in Principle 1: 'There must be complete freedom of choice of physician by the patient. Nothing in any contract will imply any restriction of this Principle . . .,' and

"Whereas, the doctor-opinion survey on prepaid medical care plans, page 61, paragraph 12, reveals that the majority of the doctors of Michigan 'feel that where service is rendered by a nonparticipating physician the Blue Shield payment should go directly to the doctor,' and

"Whereas, it is the opinion of the Michigan Attorney General that the Enabling Act does not specify how Blue Shield should discharge its obligations to doctors, and

"Whereas, Michigan Medical Service has paid participating and nonparticipating doctors in the same manner prior to the issuance of the M-75 contract; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society direct the Michigan Medical Service to pay the nonparticipating physician in the same manner as the participating physician." (See substitute, as amended, page 70.)

THE VICE SPEAKER: This resolution is referred to the Reference Committee on Prepayment Insurance.

XII—11. CREATION OF HOUSE OF DELEGATES SPECIAL COMMITTEE ON CONSTITUTION AND BY-LAWS

E. C. BAUMGARTEN, M.D. [Wayne]: This resolution is entitled, "Standing Committee on Constitution and Bylaws."

"Whereas, each year changes are proposed in the Constitution and Bylaws of the Michigan State Medical Society, and

"Whereas, these piecemeal changes, when enacted, may affect the continuity of the Constitution and Bylaws and thereby create confusion, and

"Whereas, it is desirable to have the Constitution and Bylaws up to date; therefore, be it

"RESOLVED: That a standing Committee on Constitution and Bylaws of the House of Delegates be appointed; and be it further

"RESOLVED: That all changes in the Constitution and Bylaws be referred to this Committee with the purpose of keeping this organ in good working order." (For substitute, see page 51.)

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Miscellaneous Business.

XII—12. MSMS SPONSORSHIP OF A PREPAID MEDICAL CARE INSURANCE PLAN

F. C. BRACE, M.D. [Kent]: This is a resolution on Michigan Medical Service.

"Whereas, there is an apparent need for voluntary prepaid medical care for the lower income groups, and

"Whereas, the majority of physicians of the Kent County Medical Society are in favor of providing such voluntary prepaid medical care; therefore, be it

"RESOLVED: That the Michigan State Medical Society continue to sponsor a prepaid medical care insurance plan such as Michigan Medical Service."

THE VICE SPEAKER: This will be referred to the Reference Committee on Prepayment Insurance.

XII—13. BYLAWS (CHAP. 9, SEC. 1 & 2, AND CHAP. 10, SEC. 2) COUNCILORS TO BE MEMBERS OF HOUSE OF DELEGATES

D. A. BOWMAN, M.D. [Bay-Arenac-Iosco]:

"Whereas, Councilors are the elected representatives of the House of Delegates between sessions, and

"Whereas, their active participation in the deliberations and decisions of the House of Delegates would be to the advantage of the Michigan State Medical Society; therefore, be it

"RESOLVED: That the Bylaws be amended to read as follows:

"Chapter 9—House of Delegates.

"Section 1—Composition. The House of Delegates shall be composed of members elected by the component county societies and the Councilors.

"Section 2—Officers of this State Society shall be ex officio members of the House of Delegates and shall be without power to vote in the House of Delegates, et cetera.

"Chapter 10—Council.

"Section 2—add: 'He shall serve as delegate-at-large in the House of Delegates.'" (Amended and referred to House of Delegates Study Committee.)

THE VICE SPEAKER: This will be referred to the Reference Committee on Constitution and Bylaws.

XII—14. MMS: PROMOTE SALE OF DEDUCTIBLE AND LIMITED SERVICE CONTRACTS

V. A. NOTIER, M.D. [Kent]:

"Whereas, the present type of service policy is becoming too expensive and leads to serious abuse and overutilization of hospital and medical services, and neglects the responsibility on the part of the patient; therefore, be it

"RESOLVED: That the Board of Directors of Michigan Medical Service make every possible effort to promote the sale of limited service and indemnity contracts with deductible features."

THE VICE SPEAKER: This will be referred to the Reference Committee on Prepayment Insurance.

XII—15. MMS BOARD OF DIRECTORS: MAXIMUM TERM OF MEMBERS

W. B. MCINTYRE, M.D. [Wayne]:

"Whereas, the Board of Directors of Michigan Medical Service is elected by representatives of the medical profession, and Michigan Medical Service is created to function in its field for the good of the public and the medical profession, and

"Whereas, the Board of Directors who controls this corporation encounters professional and administrative

problems inherent in the proper conduct of the corporation and develops a competency in these problems, and

"Whereas, it is necessary that the Board of Directors has not only continuity but also that there be provision for the election of new members to the Board, and

"Whereas, history has shown that it is very difficult to elect a new member to the Board by defeating an incumbent; therefore, be it

"RESOLVED: That the Board of Directors of Michigan Medical Service be requested to amend its Bylaws so that any member of the Board of Directors who shall have served two consecutive terms of three years each, making a total of six years, be ineligible for re-election for a period of one year immediately following the two consecutive terms."

THE VICE SPEAKER: This will be referred to the Reference Committee on Resolutions.

XII—16. MMS: FAMILY INCOME DETERMINATION

A. R. VANDEN BERG, M.D. [Kent]:

"Whereas, there may be more than one major wage earner in a family; therefore, be it

"RESOLVED: That total family income be used as a guide in determining fees when total income exceeds the subscriber's contract." (See substitute, page 64.)

THE VICE SPEAKER: I will refer this to the Reference Committee on Prepayment Insurance.

XII—17. MMS: PARTICIPATING AND NON-PARTICIPATING PHYSICIANS TO BE PAID IN SAME MANNER

E. M. VARDON, M.D. [Wayne]:

"Whereas, the present method of payment for services rendered by the nonparticipating doctors of medicine has created a great deal of discontent among the doctors of Michigan, and

"Whereas, the Enabling Act also guarantees subscribers free choice of physician and forbids direct payment to the subscriber, and

"Whereas, for many years Michigan Medical Service satisfactorily paid nonparticipating doctors of medicine directly, and

"Whereas, participation should be on the basis of satisfaction with the plan rather than economic coercion; therefore, be it

"RESOLVED: That Michigan Medical Service be requested to remove any distinction between participating and nonparticipating physicians in regard to payment of fees so that such fees shall be paid directly to the physician rendering service; and be it further

"RESOLVED: That The Council of the Michigan State Medical Society be directed to endorse only such contracts as embody this principle." (See substitute, as amended, page 70.)

THE VICE SPEAKER: This will be referred to the Reference Committee on Prepayment Insurance.

XII—18. ADOPTIONS

A. C. STANDER, M.D. [Saginaw]:

"Whereas, the family physician is in a particularly privileged situation with regard to knowledge of the availability of children for adoption, and of couples desiring to adopt children, and

"Whereas, the physician has direct responsibilities in adoptions to the natural parents, the child, the prospective adoptive parents, and indirect responsibilities as consultant to social agencies, as an educator, and as a citizen, and

"Whereas, physicians individually and the Michigan State Medical Society are in agreement with the laws of the State of Michigan which regulate and safeguard adoptions, and

"Whereas, it is generally recognized that adoption is a highly specialized process which involves the exercise of social work skills in securing competent evaluations of the physical and mental needs and capacities of the child and of the physical, mental, and the social attributes of the adoptive parents and in placing the child in the best possible home for him; therefore, be it

"RESOLVED: That the Michigan State Medical Society recommends (1) that all county medical societies carefully scrutinize adoptive practices in their areas which may lead to the participation of a physician in the placement or referral of any child for adoption; (2) that physicians throughout the State of Michigan be strongly urged to acquaint any person approaching them for advice concerning adoption with public procedures of adoption as prescribed by law and, further, that the physicians encourage their patients to contact authorized social agencies in all adoptions; and be it further

"RESOLVED: That a copy of this resolution be mailed to the presidents of all county medical societies; to the Directors of the State Department of Social Welfare and the State Department of Health, respectively, and to the probate courts in the several counties."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XII—19. BYLAWS (CHAP. 16, NEW SEC. 4): DEFERMENT OF DUES

H. M. FULLER, M.D. [Wayne]:

"Whereas, many component societies give members the right to pay their dues on a deferred basis upon written request, and

"Whereas, subject to approval of the governing body of said component societies such requests are frequently granted; therefore, be it

"RESOLVED: That Chapter 16 of the Bylaws of the Michigan State Medical Society be amended by adding a new Section, to be known as Section 4, to provide that upon written request of a governing body of a component county society a member shall be granted an extension of time for the payment of dues to the State Medical Society, provided that such extension shall not be beyond the fiscal year of the Michigan State Medical Society."

THE VICE SPEAKER: This will be referred to the Reference Committee on Constitution and Bylaws.

XII—20. MMS: PARTICIPATING AND NON-PARTICIPATING PHYSICIANS TO BE PAID IN SAME MANNER

W. J. FULLER, M.D. [Kent]: Mr. Speaker, the following resolution was approved by the Kent County Medical Society on September 8, 1959:

"Whereas, the present method of payment by the Michigan Medical Service to physicians is discriminatory; therefore, be it

"RESOLVED: That Michigan Medical Service eliminate differences in method of payment to participating and non-participating doctors of medicine, and that said doctors be paid directly." (See substitute, as amended, page 70.)

THE VICE SPEAKER: This will be referred to the Reference Committee on Prepayment Insurance.

XII—21. HOUSE OF DELEGATES TO APPROVE PREPAYMENT PLAN CONTRACTS

F. H. POWER, M.D. [Grand Traverse]:

"Whereas, during the 92nd Annual Session of this House of Delegates 'Principles to be Embodied in Insurance Contracts' was adopted, and

"Whereas, the statement is made that 'any contract offered by an insurance carrier or prepayment plan organization, which embodies the principles set forth in Section C herein, shall receive the endorsement of the Society,' and

"Whereas, further provision is made for the Medical Care Insurance Committee of The Council 'to examine all contracts submitted for endorsement' and to furnish 'a report . . . to The Council, which will have the

authority to issue a certificate of endorsement on behalf of the Society,' and

"Whereas, The Council has been thus directed by this House of Delegates to approve any contract embodying these principles, whether they agree with the specific contract or not, and

"Whereas, this House of Delegates cannot be certain all contracts following these principles would meet with its specific approval, if such contracts were presented in full text to the members of this body, and

"Whereas, without any implication of criticism of The Council or its Committee, it can be fairly stated that the operation of the present method of endorsement has not met anything like universal approval; therefore, be it

"RESOLVED: That the above-noted authority to approve, delegated to The Council, is hereby rescinded; and be it further

"RESOLVED: That any insurance carrier or prepayment plan organization seeking approval or endorsement of its program by MSMS shall submit the complete text of the policies, for which approval is sought, to this House as a whole, for appropriate action."

THE VICE SPEAKER: This will be referred to the Reference Committee on Prepayment Insurance.

XII—22. PORTION OF DUES REBATED TO COUNTY MEDICAL SOCIETIES FOR LOCAL PR PROGRAM

D. I. SUGAR, M.D. [Wayne]:

"Whereas, the most effective public relations programs are those developed at a grass roots level by a local society to meet the specific needs in that area, and

"Whereas, to develop and implement such public relations programs requires funds, and

"Whereas, the charge made by the Michigan State Medical Society for public relations programs ($21.50 per member per year) prohibits county medical societies from assessing their members for this purpose; therefore, be it

"RESOLVED: That The Council of the Michigan State Medical Society be directed to refund $15 per member per year to each county society or reduce its dues proportionately so that each society can assess its members for public relations programs."

THE VICE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XII—23. BYLAWS (CHAP. 6): TRANSPOSING SECTIONS 11 AND 12

H. C. REES, M.D. [Wayne]:

"Whereas, in Chapter 6 of the Michigan State Medical Society Bylaws, Section 11, 'Action by the Society' precedes Section 12, 'Action on Report—Additional Testimony,' and

"Whereas, the present order of these Sections is confusing and may result in a procedural error; therefore, be it

"RESOLVED: That Section 11 and Section 12 of Chapter 6 of the State Bylaws be hereby amended by changing the numbers and titles as follows:

"Section 11. Action on Report—Additional Testimony";

"Section 12. Action by Society."

THE VICE SPEAKER: This will be referred to the Reference Committee on Constitution and Bylaws.

XII—24. TRANSMITTING COUNCIL MINUTES TO DELEGATES

D. W. MCLEAN, M.D. [Wayne]:

"Whereas, the House of Delegates is the policymaking body of the Michigan State Medical Society, and

"Whereas, members of The Council of the Michigan State Medical Society are elected by the House of Delegates to carry on the business of the Michigan State Medical Society between sessions of the House of Delegates, and

"Whereas, it is necessary that the delegates be fully informed regarding the conduct of the Society's business between sessions; therefore, be it

"RESOLVED: That complete copies of the minutes of each and every meeting of The Council of the Michigan State Medical Society and its Executive Committee be transmitted to each delegate within twenty-one days of such meetings."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Rules and Order of Business.

XII—25. BYLAWS (CHAP. 16): REDUCED DUES FOR YOUNGER MEMBERS SO PRIVILEGED BY COUNTY MEDICAL SOCIETY

H. W. HENDERSON, M.D. [Wayne]:

"Whereas, the best interests of organized medicine are served by the incorporation into the component county and state medical societies of those doctors of medicine who are entering into the practice of medicine, and

"Whereas, many young physicians are encumbered with debts and therefore find it financially difficult to pay the full dues of such societies; therefore, be it

"RESOLVED: That Chapter 16 of the Bylaws of the Michigan State Medical Society be amended to provide that during the first year of practice a doctor of medicine who is accepted by a component county society with a reduction in dues shall be eligible for membership in the Michigan State Medical Society by the payment of one-third of the established dues schedule and that, if so accepted, he shall be eligible for a reduction to half the State Society's dues schedule for the second year of membership; thereafter, he shall be subject to the full fee schedule for dues; and be it further

"RESOLVED: That this resolution in no way exempts any member from a properly constituted assessment."

THE VICE SPEAKER: This will be referred to the Reference Committee on Constitution and Bylaws.

XII—26. GERIATRICS CHAIRS IN MEDICAL SCHOOLS

S. E. CHAPIN, M.D. [Wayne]:

"Whereas, special techniques of medicine are required in the care of aging people, and

"Whereas, special research in medicine and allied fields is required in the care of aging people, and

"Whereas, both techniques and research are sometimes different from those used in other branches of medicine, and

"Whereas, both students and faculty members have need for knowledge in this area: therefore, be it

"RESOLVED: That the Michigan State Medical Society advocates establishment of chairs in geriatrics in the medical schools of this State; and be it further

(For amendment, see page 50.)

"RESOLVED: That the Michigan State Medical Society advocates specialized teaching of this subject in our medical schools and beyond 'integrated' instruction by specialists in other branches of medicine."

THE VICE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XII—27. HOUSE OF DELEGATES COMMITTEE TO STUDY MALPRACTICE

E. E. MARTMER, M.D. [Wayne]:

"Whereas, malpractice litigations are always a threat to the doctor of medicine, and

"Whereas, the awards rendered by juries are reaching astronomical figures that may render the defendant penniless due to inadequate insurance coverage; therefore, be it

"RESOLVED: That a committee of the House of Delegates be appointed by the Speaker in consultation

with the President to study the entire problem of malpractice." (See amendment, page 42.)

THE VICE SPEAKER: This will be referred to the Reference Committee on Resolutions.

XII—28. TRANSMITTING COUNCIL MINUTES TO DELEGATES

J. D. MILLER, M.D. [Kent]:

"Whereas, the transfer of information from The Council to the delegates of the county societies, is not in accordance with modern methods of communications, and

"Whereas, the minutes of the midsummer meeting of The Council which were promised for the August issues of THE JOURNAL of the Michigan State Medical Society were not included in said JOURNAL, and

"Whereas, it is necessary for the delegates of the component societies to have information pertinent to the activities of the Society promptly; therefore, be it

"RESOLVED: That the minutes of the meetings of The Council and its Executive Committee be transmitted to the delegates of each county society within thirty days of said meetings."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Rules and Order of Business.

XII—29. BYLAWS: DELETE CHAPTER 7 RE GRIEVANCE COMMITTEE

M. R. WEED, M.D. [Wayne]:

"Whereas, Chapter 7 of the Bylaws of the Michigan State Medical Society, 'Grievances of Nonmembers—Mediation Committees,' directs each county society to establish a Mediation Committee and specifies policy, purposes, duties and powers of these Committees, and

"Whereas, this Chapter is unrelated to any committee or activity of the State Society and concerns the component county societies only, and

"Whereas, it is the responsibility of the Michigan State Medical Society to guide and assist but not to direct the activities of the county medical societies, and

"Whereas, it is recognized that it is the responsibility of the county society to reconcile these grievances and misunderstandings between physicians and their patients, and

"Whereas, each county medical society should have the prerogative of developing and following those procedures most effective in its area for carrying out this responsibility to the public and to the physicians; therefore, be it

"RESOLVED: That the Bylaws of the Michigan State Medical Society be hereby amended by deletion of Chapter 7, 'Grievances of Nonmembers—Mediation Committees'; and be it further

"RESOLVED: That the contents of this Chapter be sent to each component medical society as a guide for its Mediation Committee."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Constitution and Bylaws.

XII—30. ITEMIZATION OF BLUE CROSS-BLUE SHIELD PREMIUM NOTICES

G. S. FISHER, M.D. [Wayne]:

"Whereas, many policyholders believe that their premiums are paid into one general fund, and

"Whereas, there has been a great deal of confusion about this, and

"Whereas, even if the subscribers are cognizant of the separate existence of Michigan Medical Service and Michigan Hospital Service they do not know how the premiums are divided between these corporations; therefore, be it

"RESOLVED: That all premium notices shall be itemized so that the policyholders can quickly and clearly understand what percentage of their premium is spent to defray hospital costs, remuneration of doctors, and other expenses incidental to medical care." (See amendment, page 70.)

THE VICE SPEAKER: This will be referred to the Reference Committee on Prepayment Insurance.

XII—31. PRENATAL HEALTH

S. A. COSENS, M.D. [Bay]:

"Whereas, the Maternal and Child Health Division of the Michigan Department of Health has instituted a 'Prenatal Letter Program' at public expense and claims sponsorship of the Michigan Medical Society in this activity, and

"Whereas, the need or desirability of such a program by a governmental bureau has not been adequately proven, and

"Whereas, such prenatal education is the rightful private responsibility of the attending physician and is readily available from private sources, and

"Whereas, the existence of such a program constitutes the usurpation of the responsibilities of the private practice of medicine by a governmental bureau at the taxpayer's expense; therefore, be it

"RESOLVED: That the Michigan Medical Society recommend to the Michigan Department of Health that this program be abandoned; and if this is not done, that the membership of the Michigan Medical Society be advised against participation or sponsorship."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Hygiene and Public Health.

XII—32. BYLAWS (CHAP. 6, SEC. 7) TO DELETE "DISMISSAL" IN LAST SENTENCE

SIDNEY ADLER, M.D. [Wayne]:

"Whereas, Chapter 6, Section 7 of the Michigan State Medical Society Bylaws requires the ethics committee of the county medical society 'to report such dismissal or reprimand in writing to the component county society, together with the reasons thereof,' and

"Whereas, the reporting of such dismissed cases by county ethics committees gives unnecessary publicity for a member found not guilty of the charges; therefore, be it

"RESOLVED: That Chapter 6, Section 7 of the State Bylaws be amended by striking out the words 'dismissal or' from the last sentence in this Section."

THE VICE SPEAKER: This will be referred to the Reference Committee on Constitution and Bylaws.

XII—33. BYLAWS (CHAP. 10, SEC. 7) EDITOR TO BE ELECTED BY HOUSE OF DELEGATES

E. J. TALLANT, M.D. [Wayne]:

"Whereas, it is been recommended to the House of Delegates of the Michigan Medical Society that the Editor of The Journal of the State Society be elected; therefore, be it

"RESOLVED: That the Bylaws be hereby amended by striking out the following words in the first sentence in Chapter 10, Sec. 7: 'An Editor of The Journal of the Michigan State Medical Society,' and by adding the following new paragraph to Chapter 9:

"Sec. 10: '(h) At each Annual Session The Council shall present to the House of Delegates one or more nominations for the office of Editor. Further nominations made be made from the floor of the House. From this list of nominees the House of Delegates shall elect for a one-year term the Editor of The Journal of the Michigan State Medical Society.'" (See substitute, page 49.)

THE VICE SPEAKER: That resolution will be referred to the Reference Committee on Constitution and Bylaws.

XII—34. AMENDMENT TO BYLAWS SO EDITOR IS ELECTED BY HOUSE OF DELEGATES

E. J. TALLANT, M.D. [Wayne]:

"Whereas, the Editor of The Journal of the Michigan State Medical Society should represent the policies and decisions of the members; therefore, be it

"RESOLVED: That the Editor of The Journal of

the Michigan State Medical Society be elected by the House of Delegates; and be it further

"RESOLVED: That the appropriate Bylaw amendments be prepared to carry out this recommendation." (See substitute, page 49.)

THE VICE SPEAKER: This resolution also will be referred to the Reference Committee on Constitution and Bylaws.

XII—35. TRANSMITTING COUNCIL MINUTES TO DELEGATES

W. J. ZIMMERMAN, M.D. [Oakland]:

"Whereas, the officers, Executive Committee and members of the Oakland County Medical Society desire to be informed of the details surrounding the legislative actions of The Council and its Executive Committee, and

"Whereas, the Executive Committee of The Council has stated in a letter dated December 23, 1958 that copies of minutes of any MSMS Council, Executive Committee and other committee meetings have always been available at MSMS headquarters in Lansing, and

"Whereas, delegates and members of county committees must have information readily available at their county executive offices, and

"Whereas, the abridged notes of such meetings as they appear in the MSMS JOURNAL are inadequate, incomplete and delayed; therefore, be it

RESOLVED: That the Secretary of the MSMS forward to the proper authorities of all county medical societies the minutes of any MSMS Council, Executive Committee and other committee meetings upon written request; and be it further

"RESOLVED: That such material be used only for the information of the county society and returned if desired on a specified date."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Rules and Order of Business.

XII—36. CIVIL DEFENSE TRAINING PROGRAM

W. J. COULTER, M.D. [Wayne]:

"Whereas, in the event of an atomic attack on any of the industrial areas of Michigan, the burden of care for the victims of such an attack would fall on the less populous areas of the State, and

"Whereas, the Federal Civil Defense Agency is stockpiling 200-bed emergency hospital units in such less populated areas of Michigan, and

"Whereas, the proper use of such hospital equipment requires the training of both medical and lay personnel, according to training plans adopted by the Michigan Office of Civil Defense; therefore, be it

"RESOLVED: That the House of Delegates urge all component county medical societies which have not already done so to set up training programs under the auspices of Civil Defense agencies, to train physicians, nurses, ancillary professional and volunteer lay personnel for operation of emergency Civil Defense hospital units; and be it further

"RESOLVED: That a copy of this resolution be sent to the secretary of every component county medical society in Michigan." (See added "resolved," page 52.)

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on National Defense and Disaster Planning.

XII—37. COUNTY MEDICAL SOCIETY MEDICAL STUDENT RECRUITMENT

H. F. FALLS, M.D. [Washtenaw]:

"Whereas, it is becoming increasingly evident that, secondary to accelerated competition for the gifted student presented by industry, business, science and agriculture, there is a rapid declining level in the quality of students entering the study of medicine, and

"Whereas, the future of medicine as well as the caliber of American medical care is solely dependent upon this quality of such students, and

"Whereas, responsible and dedicated youth is impressionable and most susceptible to the influence of leading senior citizens as to their eventual choice of vocation; therefore, be it

"RESOLVED: That each individual member of this House of Delegates consider himself as a committee of one to sell medicine as a vocation to leading high school and college students in each community; and be it further

"RESOLVED: That each component county society of MSMS be respectively encouraged to appoint an active committee delegated with the responsibility of continuous presentations of the virtues, advantages and self-gratification inherent in medicine as a vocation; and be it further

"RESOLVED: That the Michigan Health Council conferences scheduled to occur during the next few months be given enthusiastic and active support of such committees." (For additional "resolved," see page 50 and amendment, page 51.)

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XII—38. MMS: STUDY OF REMUNERATION FOR PROLONGED AND/OR COMPLICATED CASES

G. S. FISHER, M.D.:

"Whereas, the Michigan Medical Service fee schedule does not take into consideration the need for additional remuneration in cases where the care is prolonged and/or complicated; therefore, be it

"RESOLVED: That the House of Delegates directs the Speaker of the House to appoint a committee of delegates of not less than five nor more than seven members to explore and recommend proper implementation of the principle that fees shall be varied for any service under the Michigan Medical Service contracts in accordance with the prolonged and/or complicated care of the patient concerned; and be it further

"RESOLVED: That this committee shall report its findings and recommendations to the House of Delegates at the next Annual Session." (See substitute, page 73.)

THE VICE SPEAKER: This will be referred to the Reference Committee on Prepayment Insurance.

XII—39. OTHER PROFESSIONS: REDUCED FEES TO SENIOR CITIZENS

W. C. BEETS, M.D. [Kent]:

"Whereas, the happiness and serenity of the lives of our senior citizens should be of concern to all our peoples, and

"Whereas, the House of Delegates of the American Medical Association has taken the highly commendable action in calling for the medical profession in general, and the Blue Shield organization in particular, to provide medical care for this age group at reduced fees, and

"Whereas, this in effect represents a subsidy to be provided by the members of a single profession, and (See amended "resolved," page 50.)

"Whereas, other professional expenses might be expected to be incurred by these retired citizens to be paid at the full rate for the services rendered; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society instruct the physicians on the Board of Directors of the Michigan Association of the Professions to urge the Michigan Society of Architects, the Michigan Society of Professional Engineers, the Michigan State Dental Association and the State Bar Association of Michigan to publish as soon as possible a statement of principles for guidance of the members of the respective professions, to be followed as soon as practical by a fee schedule covering the various services provided by the divers professions for our citizens who are over sixty-five years of age."

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XII—40. MMS: CHANGES IN PUBLIC ADVERTISING

E. C. BAUMGARTEN, M.D. [Wayne]:

"Whereas, Michigan Medical Service advertises that 'Michigan Medical Service pays your doctor,' and also that Michigan Medical Service is 'The Doctors' Plan,' and

"Whereas, these statements are at variance with the facts; therefore, be it

"RESOLVED: That Michigan Medical Service be requested to delete such statements from advertising to the public; and be it further

"RESOLVED: That The Council of the Michigan State Medical Society be directed to endorse only such contracts as embody these principles."

THE VICE SPEAKER: This will be referred to the Reference Committee on Prepayment Insurance.

XII—41. COMMENDATION TO MEDICAL CARE INSURANCE COMMITTEE

A. S. NAROTZKY, M.D. [Marquette-Alger]:

"Whereas, the Medical Care Insurance Committee has faithfully and diligently discharged the tasks assigned to it under the commitments made by the Michigan State Medical Society and within the framework of the Statement of Principles of Prepaid Medical Insurance adopted by the House of Delegates; therefore, be it

"RESOLVED: That the House of Delegates commend the Medical Care Insurance Committee and its Chairman, Dr. Max Lichter, for a difficult and complex job well done."

THE VICE SPEAKER: This will be referred to the Reference Committee on Resolutions.

XII—42. MMS: DETERMINING TOTAL ANNUAL FAMILY INCOME

R. E. WUNSCH, M.D. [Wayne]:

"Whereas, the eligibility for service benefits under former contracts of Michigan Medical Service was based on total family income, and

"Whereas, eligibility for service benefits under the present Michigan Medical Service M-75 contracts is on an income level determined by the projection of the current rate of earnings of the basic wage earner in the family and not by family income, and

"Whereas, this method of determining income may be unfair to both the doctor of medicine and the subscriber; therefore, be it

"RESOLVED: That Michigan Medical Service be requested to use the total annual family income in the sale of policies covering other than a single subscriber; and be it further

"RESOLVED: That The Council of the Michigan State Medical Society be directed to endorse only such contracts as embody this principle." (See substitute, page 64.)

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Prepayment Insurance.

XII—43. HANDBOOK LISTING OF MSMS OFFICERS

R. R. COOPER, M.D. [Wayne]:

"Whereas, the Handbook for Delegates lists the officers of the State Society, and

"Whereas, the Editor of "The Journal" is not an officer of the Michigan State Medical Society according to Article 9 of the Constitution, and

"Whereas, the post of Assistant Editor is not provided for in the Michigan State Medical Society Bylaws; therefore, be it

"RESOLVED: That in the future the Handbook should list the officers of the Michigan State Medical Society correctly."

THE VICE SPEAKER: This will be referred to the Reference Committee on Miscellaneous Business.

XIII—FIFTY-YEAR AWARDS

THE SPEAKER: At the moment we are honoring those physicians of the Michigan State Medical Society who have completed fifty years in the practice of medicine.

The following were presented Fifty-Year Awards:

Corwin S. Clarke, M.D., Jackson
Henry Cook, M.D., Flint
Ferdinand Cox, M.D., Jackson
Walter L. Finton, M.D., Jackson
E. V. Joinville, M.D., Detroit
John S. Lambie, M.D., Birmingham
Ralph W. Ridge, M.D., Wyandotte
John T. Sample, M.D., Saginaw
Emma L. W. Sheppard, M.D., Fenton

(The audience arose and applauded.)

XIV. PRESENTATION MADE BY CHAIRMAN, NATIONAL BLUE SHIELD PLANS

THE SPEAKER: We have the very rare privilege of having with us some gentlemen on the National Blue Shield Plans. Dr. R. B. Carson, John Castellucci, and Dr. Donald H. Stubbs, who is Chairman of the Commission. It is my very distinct privilege to introduce to you Dr. Stubbs, who will speak to us on the subject, "The National Scene of Blue Shield."

DONALD H. STUBBS, M.D.: I came to Michigan from Texas on Saturday. While I was there I became acquainted with a special brand of short straight razor which semed not to be a suitable weapon for fighting, and it was explained that it was not so. It was a therapeutic tool. Rattlesnakes, you know. When one gets bitten he cuts the fang marks with the razor, sucks out the blood and goes about his business. But there is a possibility of sitting on a rattlesnake in Texas, and so the question arose as to what one does in such an event.

An old man said, "Son, that's how you tell who your friends are." *(Laughter)*

So, I brought the knife along; and if I have any friends in the audience when I finish today, and if I should get bitten on the way back to my seat, I shall put it in my right hand pocket.

I think I should start by saying something about who we are and who you are. Your Speaker kindly commented on the fact that we are from the National Board, and he spoke of it as being a privilege to have us here. It is distinctly a privilege to us to be here, and personally I am quite pleased to be able to address this distinguished group of American physicians.

Prepayment plans, as we all know, have existed in varying forms over this country for many years. They grew up in grass roots areas as a response to mounting pressures for easing the burdens of paying for medical care, and they grew up in varied forms because they did grow at the grass roots level.

It was in 1946 that the American Medical Association took the initiative of helping gather these together, those who conformed to a group of principles that seemed suitable for nonprofit local control; and, as I say, they initiated the National Association of Blue Shield Plans. They put up money to help do this.

At the present time, we have gone a long way from 1946, and we have a national organization which has considerably more of an autonomous status than it had at that moment. There has been a tendency at the national level, as there has been at the local level, for distinctly professional activities to be separated somewhat from those having to do primarily with economic affairs; and this, we think, is as it should be—that these organizations have certain interests of parallel nature. We believe that by keeping them very closely related they can serve a common purpose, but by having some parallel separations and parallel forces they may be mutually even more helpful.

For example, I believe that at the national level Blue Shield has been more helpful to the American Medical Association by presenting, in connection with Forand bill efforts in the Congress, parallel views but not views dictated by organized medicine, and therefore views that have weight as coming in from a little different angle.

I think in many ways we can show that medicine is concerned for the public interest not only in its purely professional activities, where of course we serve the public, but even in economic affairs where we sponsor and aid and guide organizations that act as stabilizing influences in this entire field of prepayment.

We do have to recognize, as I am sure the physicians of Michigan recognize perhaps as well as or better than any other group in the country, that prepayment is here to stay, that it has come to a point where it would be unthinkable that it might reverse its trend, that it might be displaced by anything less than a compulsory course in a different direction. And, therefore, we are all agreed, I know, that we must make this thing work—work in our interests while we work in the interests of the public.

The seventy-odd Blue Shield plans that now exist in this country conform, as I mentioned earlier, to a code of procedures, to standards of activity that bind them together as having more points of similarity than of difference; but they do still have their local autonomy.

We are good examples in Blue Shield, as you are in the medical profession, of retaining rights at the local level. The state societies in medicine, the Blue Shield plans in prepayment fields, have their own organizations, controls, and the national organization may not infringe upon them in any appreciable degree. Our infringements are friendly pressures due to the fact that we act as a clearinghouse of information, and due to the fact that we all know that our friends out there in some other state have our interests at heart as well as their own.

The real control in all Blue Shield is the conference of plans when they meet annually or upon special occasion if there is need to do so. In the interim, between plan meetings, activities are carried on by a Board of Directors of more than thirty men, two-thirds of whom must be physicians and the others may or may not be. Three of these Board members are designated for staggered terms of three years each by the American Medical Association.

Our relation to medicine, then, is a very close one. It is a controlling one. We can't exist without medicine, and we feel that medicine can't exist in its present form without us.

There are those of us who devote ourselves to Blue Shield as practicing physicians with exactly the same type of dedication that those who devote themselves to the organized activities of the professional organizations in medicine do, and we feel that both of those forms of dedication are noble and should be preserved by our profession.

Our plans have an interrelation, as I said. There is a complication to this thing which perhaps can be classically illustrated by the first excellent description of the web of life, which goes back more than 100 years to Darwin's Origin of Species, in which he called attention somewhat facetiously but with real meaning—meaning that has been brought out again recently in many articles not only on animal life but on human life—that these relations sometimes are rather difficult to see at a glance.

His illustration had to do with the fact that generosity of housewives in a section of England in feeding milk to their cats actually resulted in a reduction in the milk supply that the cows gave ultimately. It came about in this way:

As the cats were better protected at home and became indolent and didn't hunt for field mice, the mice increased in numbers, acting as natural enemies of a form of bumble bee. They decreased the bees, who were the pollenating factors for a type of clover that was the principal feed for cows in that neighborhood.

As the cows had less feed because the cats were having more, the cows gave less milk, and the housewives were required to redeem their deviation from interference with the ways of nature. *(Laughter)*

I don't know whether Carson, Castellucci and I are the rats, bees and cats, but I know we are only one segment of that thing; and so we have not been able up to now to complete the solution to problems that had already been existent for some time in Michigan.

I appreciate the indulgence of the Speaker in leaving the gavel over here while I ramble on in this fashion, because this is the introduction to my report. I will skip about in it, but will take enough time to emphasize the points because we feel that they are so very important; and they are important in a group of this kind because these things grew up not because of things that were done so much as because of how things were done. And so the report, then, goes in this fashion:

Responding to an official resolution adopted by the Executive Committee of The Council of the Michigan State Medical Society, representatives of Blue Shield Medical Care Plans have recently engaged in a series of meetings with groups representing the State Medical Society, the Wayne County Medical Society and Michigan Medical Service. These meetings were held to consider questions relating to the Blue Shield operation in Michigan.

On August 26, representatives of the National Association of Blue Shield Plans met with the Co-ordinating Committee on Studies of the Wayne County Medical Society. Following the meeting with this group, discussions were held the same day with the delegates and alternates of the Wayne County Medical Society.

The Blue Shield group attending these meetings included Dr. Russell Carson, Fort Lauderdale, Florida, Chairman of the Professional Relations Committee of our national organization; Mr. John W. Castellucci, Executive Vice President of the National organization of Blue Shield now, but formerly here in Michigan; and myself, practicing medicine in the District of Columbia but living in the State of Virginia and visiting where I am required on occasion from my practice to do this job that I say is a dedicated one for you, for me, and all the rest of us.

The purpose of our meeting was twofold: First, to discuss certain problems arising out of the development and administration of the M-75 contract; second, to offer our assistance in finding practical solutions to these problems conducive to the preservation of the interests of the public and profession alike.

We emphasized in these early efforts, as I would emphasize to you this morning, that we lay no claim to any special knowledge of how to settle these things within ourselves, but only hope that we can be a kind of catalyst that aids in communications among yourselves, for you will be the ones to settle the problems actually.

Following our meetings with representatives of the Wayne County Medical Society, we discussed at some length the background events leading to the development and the adoption of the M-75 contract, and we reviewed the structure of Plan administration in general and in relation to both the M-75 contract and to the general operation of the Blue Shield Plan.

These discussions were held with officers of the Plan and key executives and administrative personnel. In addition to these discussions we also reviewed in considerable detail minutes of the Board meetings that contained information essential to our complete understanding of the problems we were requested to consider and help resolve.

On Wednesday, September 9, our committee representing the National Association was invited to attend a meeting of the Board of Michigan Medical Service in Detroit, and discuss an even wider range of problems affecting the present operations of the Plan and its

relationship with subscribers as well as with the medical profession.

Dr. Carson was unable to be present, but joined in the discussion of the results, and as a result of this meeting the Board of Michigan Medical Service requested that a formal and detailed study of the management, administration and corporate structure of Michigan Medical Service be undertaken by representatives of the National Association of Blue Shield Plans.

I wish to make it a matter of record in this report that we are prepared to undertake such a study, since this represents one of the services our National Organization is prepared to perform for its members at their request.

Since that time, we met yesterday with your Council and had a very pleasant luncheon meeting and yesterday afternoon late and last evening we met and talked with many of our friends here. We are sorry we could not talk with more, because we are convinced that for us three coming into Michigan the most important single thing we can do is to try to get the feel of the situation, of the attitudes that exist in this group especially, because we know that the honesty and straightforwardness of intent is such that we can't fail to find a solution if we can only bring these understandings together.

The development of specific study procedures and an outline of the necessary investigative program to be followed are necessary prerequisites to such an investigation. These preliminaries will take time to complete. Moreover, the study itself will require considerable investigation and a detailed evaluation of assembled facts before any final report and recommendations can or should be submitted.

However, I wish at this time to report certain preliminary observations and recommendations which among others should be considered in detail in connection with the proposed study.

1. It is our belief that an evaluation of the corporate structure of Michigan Medical Service must be made with a view toward defining more fully the nature of the relationship between Michigan Medical Service Board and the State Medical Society. The nature and extent of the responsibilities of the Michigan Medical Service Board appear to require clarification so that its authority in relation to that of the Medical Society will not conflict.

Along with this, the function of the organization, the structure and responsibility of all committees of Michigan Medical Service Board as well as those of the Medical Society concerned with Blue Shield affairs should be reviewed and, where indicated, the functions, composition and the authority of these committees should be modified in order to enhance their efficiency.

There is reason to believe at this time that the terms of Board members should be limited to specified periods of service, to provide for a reasonable turnover in Board membership, and thereby broaden the opportunity for participation by more physicians.

This point, we think, has been an important one in many areas, because as soon as a man becomes exposed to the needs of a board like this he becomes a statesman in medicine, a representative of the entire profession, and a representative of that profession in one of its best relations to the public.

We have seen many times men go on boards of Blue Shield as representative of pressure groups or minorities or those who feel that it should be changed around, and they quickly fit into the pattern of operation. They do this so well that I am thoroughly convinced that the best thing that can happen in general in any such situation is to get the man most disturbed about the Blue Shield Plan on the board, and he will become one of the best friends that Blue Shield can have.

I would like to say to physicians in my own area, where I can be somewhat blunt about it, that if there is anything in Blue Shield you don't like, it is more your fault than anybody else's, because you ought to get in there and help try to straighten it out.

When doctors have as a group in a locality the full control of their Blue Shield Plan, then they must of course operate it in a form that is in the public interest, and this we find they tend to do as soon as they have corporate responsibility of doing it.

From what is presently known about the recent problems confronting Michigan Medical Service, it appears that the matter of communication between the Plan and the Medical Society and between the Plan and physicians at large has not always been completely effective or informative.

In retrospect, for example, it appears that the insurance principles established by the House of Delegates in 1957 could have been implemented in a manner that would have been more widely acceptable by the profession. Instead, it appears that a series of unfortunate misunderstandings occurred, culminating in some genuine and sincere objections on the part of some physicians which reflected adversely on Blue Shield.

This is a long statement about a single subject, but it has to do with organization and continuing function, and it indicates the complexity of this problem; so, we are able to say only that we believe progress is being made, and much more should be made, and that this thing should be followed on this point very carefully by all of us.

2. The problems inherent in offering the M-75 contract exclusively on the basis of income certification seem to have been eliminated or reduced by the present practice of allowing subscriber groups a choice of contracts without the need to qualify for coverage on the basis of income certification, as had originally been the case.

In our discussion of this matter, we have developed a procedure which may prove to have practical value—of continuing to apply a form of income certification in the administration of contract offerings.

This of course, as you know, is a very difficult problem. If certification is to be made at the Plan level, there are severe limitations on how it may be made. If it is to be made at the physician-patient level, we have the much more traditional approach to decisions of this kind; and it is desirable certainly where so much precedent exists country-wide, and where there is now a definite precedent of a contrary nature in this area, that this be carefully studied, and that the changes made not be revolutionary and disturb the situation even more than it does.

So, as soon as we have had an opportunity to develop more fully the elements of this idea, to assess its practicability, it is our intention to propose it for consideration and application in a specific form.

3. Considerable controversy has centered around the method of providing payment to nonparticipating physicians. Paying the subscriber directly for services of nonparticipating physicians has been strenuously opposed as an unfair discrimination and punitive in its intent. It seems that this practice was not adopted as a means of penalizing the nonparticipating physician. The practice does draw a distinction between participating and nonparticipating physicians, and it should be recognized that failure to make any distinction would amount to a negation of the service principle.

To satisfy those who oppose the present practice of paying the subscriber only for services rendered by nonparticipating physicians, we would recommend that the Plan incorporate on its report forms a statement of assignment to be signed by the subscriber when payment is to be made directly to the nonparticipating physician.

We realize that this is a problem which is serious not because of theory involved in it but because of long-standing practice which was contrary to some of that very theory. But because of the tradition of doing things in a certain way, if at a time of tension and of difficulty or of confusion of thinking and attitude a change is made, it is perfectly possible for a change to be made in a direction which is entirely logical, and

yet that change be one repugnant to many who might have supported the principle.

And so we are concerned to see this matter settled in a way so that payment will be made but that there is a theoretical authorization for it, and we do hope that the claim form which is already in existence can be the means of doing this with no inconvenience worth mentioning.

4. The question of income levels in relation to service contracts and the problems of determining accurately subscriber income and administering a service program represent two items of major concern to the Board of Michigan Medical Service, the medical profession and the community. We are not prepared in this preliminary report to suggest a specific income level as appropriate for the service contracts offered in Michigan. Obviously, this can be determined only on the basis of factual information relating to the actual level of family and individual incomes of wage-earning populations.

Nevertheless, since surveys indicate that the majority of physicians in Michigan support the service principle, it may be said in general that to achieve a service program the income level must be at a level high enough to assure and effectively provide service benefits to a majority of wage earners.

Placing income limit at a level that limits service to but a small percentage of wage earners is not in keeping with either the letter or the spirit of service concept.

A study of health insurance presently being conducted by the University of Michigan is expected to produce valuable information on income levels of Michigan residents, and in discussing this project with Professor Walter McNerney we have received assurance that data from the study can be applied in determining the extent to which present Blue Shield income levels are in keeping with prevailing income levels in Michigan. This data will be available in preliminary form in early 1960, and should be carefully studied before any effort is made to alter present service benefit income levels.

In the meantime, the widespread public acceptance of the coverage presently available would tend to suggest that the programs presently offered are reasonably related to the needs and incomes of Michigan residents. It is our recommendation, therefore, that the income levels of present Blue Shield contracts be maintained until their suitability can be accurately evaluated in the light of data, such as that to be revealed in the University of Michigan study.

With reference to the problem of income certification through payroll records, there does not seem to be any practical alternative immediately available. The Plan could not determine and certify subscriber income through administrative methods now available, except at great expense; and even then the possibility of accuracy would be remote.

We have under consideration, then, a procedure that may prove to be suitable in establishing and verifying the subscriber's income to the satisfaction of physician and patient alike. Before recommending this procedure, we wish to have further time to refine it and consider its potential usefulness. We propose to report this procedure and recommend its application as soon as we feel it can be suitable and practical. But this, as you will recognize, is something that involves all the millions of subscribers in Michigan as well as the physicians, and we need to move carefully and be sure at every single point that we are right as we try to move out of the difficulty in which we find ourselves now. We think we have made some motion in that direction. We feel sure we can make more.

5. Because so-called national accounts represent an increasingly important source of subscribers to Blue Shield, and because the Federal Employee Health Benefits Act signed into law last week by the President represents a potential source of enrollment of real significance, it is imperative that we lose no time in getting 100 per cent Plan participation in our Blue Shield National Account Agreement. Therefore, we recommend that Michigan Medical Service adopt the National Account Agreement featuring a uniform scope of benefits under which service plans provide a $6,000 family income level contract. The fee schedules are determined locally and are to be related to a $6,000 income level for the area concerned.

It is imperative that we have the National Account program available for employees of the Federal Government. Michigan's participation is indispensable to us in this effort. We urge that the Board of Michigan Medical Service approve participation of the Plan in the National Account Agreement in addition to contracts that are currently in the offing.

I might add a word about the law. It requires that there be one government-wide service benefit program which is intended to describe the offering that now exists nationally in Blue Cross and Blue Shield. It will involve 5 million Americans, and it will involve them in a good basic program plus a major medical supplemental benefits addition, and therefore will be much the largest single National Account that is available for any negotiation.

We have a considerable leeway in Blue Cross and Blue Shield to adjust to local conditions. It has been made plain by our testimony over the last five years in both houses of Congress that we do operate at the local level with local fee schedules and local differences that are important to us. I think the thing which gives us greatest satisfaction in this present law is that against great opposition we have succeeded finally in getting a law which will enable us to retain the amount of local autonomy that we will have under it.

And so we urge Michigan to be a part of that national program, because we ourselves will have no option on certain features of uniformity, that is, the scope of benefits. We will not meddle in the local fee schedules and things of that kind, but we do have to have a uniform program or we will have no rights to take the plan, which cannot offer it, into this program.

6. To provide continuation of this study (the present one here) to a successful completion, we recommend that a special committee of the State Medical Society be appointed to co-operate with us. We believe that such a group will be very helpful in the discussions necessary to our study and in pointing out special problem areas for study that we might overlook otherwise.

In summarizing the six points, I might say that they seem to us to fall into three grades of achievement. We have some things that are already being done, that have come about because of discussion and efforts to settle certain problems such as the selling now of noncertified contracts to groups. We have, we think, a better liaison and understanding.

One of the things that has impressed us three visitors to your kind area has been that there is no question at all of the good will and the honest intent to do this thing in the best all-around interests. There are of course differences that exist, and there will continue to be. There are some physicians who honestly do not believe that prepayment is a good thing or that a service program is a good thing.

For purposes of this discussion, we have to limit ourselves to the physicians who do believe that Blue Shield is a desirable means of achieving an end, in the profession, and that a service benefit program of proper grade is an outstanding factor in achieving that end. We think that liaison is better than it has been, because we have seen such evidence of good will as I said.

The second grade of approach is the specific recommendations that we make in regard to assignment forms and to the National Account Agreement. These are things we believe can be done immediately—that they don't take study or communication, and that sort of thing.

Thirdly, there are some things that cannot be settled overnight or quickly. This is similar to the problem of shock. I have been pleased to lecture on this subject

in a number of places, and to attempt to emphasize the point that it takes almost as long to get a patient out of shock, and careful watching, as it took to get him into it.

If we have him in difficulty for three or four hours, no matter whether his blood pressure and pulse and all the other signs we go by have come back to normal in fifteen or twenty minutes with massive blood replacement, we do have to watch him for a period of time, at least as long as it took him to get there.

I think we will have to watch this thing exactly as though we were bringing a patient out of shock. Because he looks good is no proof that he can't get into trouble again, and we must see to it that he does not get into trouble again. That is the purpose of the continuing committee, the study of the organizational structure and liaison, and the effort to improve that.

Finally, then, we wish to express our sincere appreciation for the courtesies that have been extended to us by the Board of Michigan Medical Service, by the representatives of the medical profession, and especially this distinguished House. We believe that the preliminary observations and suggestions presented in this report point the way to the solution of many of the important problems confronting Blue Shield and the medical profession in Michigan.

It is our desire to pursue this study of these problems still further, with a view toward the development of additional recommendations that will strengthen the corporate and management structure of Michigan Medical Service in the best interests of the public, of the profession, and of the Plan itself.

At your direction and with your assistance we propose to carry forward such a study as you have asked us to make, and it is our intention to present you with a detailed discussion and specific recommendations aimed at finding appropriate solutions to the additional problems presently affecting the operation and administration of Michigan Medical Service.

We respectfully submit this preliminary report in the sincere hope that it will be helpful and that we may continue to serve you to a truly good conclusion.

In connection with that conclusion, we call attention to a thing known to all of you—that was known in your student days and was taught me and us in medicine— that a physician may not withdraw from his profession, nor may his profession withdraw from the human race. The future of this profession depends upon our ability to balance economic and professional values. Let us see to it that no one of us is found wanting. *(Applause)*

THE SPEAKER: Thank you, Dr. Stubbs, for this very impressive presentation.

The speaker introduced Dr. Carson and Mr. Castellucci.

XII—44. CONSTITUTION (ART. X, SEC. 1): ELECTION OF SECRETARY BY HOUSE OF DELEGATES

F. L. TROOST, M.D. [Ingham]:

"Whereas, The Council of the Michigan State Medical Society is empowered to act on behalf of the Society in the interim between sessions of the House of Delegates, and

"Whereas, each Council member should be elected by the delegates who are the elected representatives of the membership, and

"Whereas, the Secretary, who is a member of the Executive Committee of The Council, is elected by The Council; therefore, be it

"RESOLVED: That the Secretary be elected annually by the House of Delegates; and be it further

"RESOLVED: That Article X, Section 1 of the Constitution be amended by striking out after Secretary and Treasurer the following: '. . . the last two being elected by the foregoing'; and be it further

"RESOLVED: That provisions of Article XII, Section 1 of the Constitution be implemented as provided." (Deferred for one year.)

THE SPEAKER: This resolution will be referred to the Reference Committee on Constitution and Bylaws.

XII—45. CONSTITUTION (ART. X, SEC. 1): ELECTION OF TREASURER BY HOUSE OF DELEGATES

F. L. TROOST, M.D. [Ingham]:

"Whereas, The Council of the Michigan State Medical Society is empowered to act on behalf of the Society in the interim between sessions of the House of Delegates, and

"Whereas, each Council member should be elected by the delegates who are the elected representatives of the membership, and

"Whereas, the Treasurer, who is a member of the Executive Committee of The Council, is elected by The Council; therefore, be it

"RESOLVED: That the Treasurer be elected annually by the House of Delegates, and be it further

"RESOLVED: That Article X, Section 1 of the Constitution be amended by striking out after Secretary and Treasurer the following: '. . . the last two being elected by the foregoing'; and be it further

"RESOLVED: That provisions of Article XII, Section 1 of the Constitution be implemented as provided." (Deferred for one year.)

THE SPEAKER: This resolution also will be referred to the Reference Committee on Constitution and Bylaws.

XII—46. AAPS MEMBERSHIP

A. Z. ROGERS, M.D. [Wayne]:

"Whereas, inroads into the private practice of medicine are constantly being attempted by various socialistic-minded individuals and powerfully organized groups, and

"Whereas, the socialized form of medicine is inferior to the private practice of medicine, and

"Whereas, an active united front by doctors is necessary to effectively oppose these well-organized attempts to overthrow the private practice of medicine, and

"Whereas, the American Association of Physicians and Surgeons is second only to the American Medical Association in active opposition to these threats, and

"Whereas, the aims and purposes of the American Association of Physicians and Surgeons have been approved by this House of Delegates; therefore, be it

"RESOLVED: That membership in the American Association of Physicians and Surgeons be encouraged."

THE SPEAKER: This will be referred to the Reference Committee on Miscellaneous Business.

XII—47. BYLAWS AMENDMENTS RECOMMENDED BY THE COUNCIL—(A) ELIMINATE CANCER CONTROL COMMITTEE

SECRETARY WILEY: These recommended changes in the Michigan State Medical Society Constitution and Bylaws are submitted by The Council:

Bylaws, Chapter 11, Section 3: Eliminate the "Committee on Cancer Control."

M. A. Darling, M.D., made this recommendation to the MSMS Executive Committee on The Council on November 19, 1958. His suggestion is the result of the MSMS Cancer Control Committee's functions being performed by the Michigan Cancer Co-ordinating Committee in recent years.

XII—47(b). CHANGE NAME OF LEGISLATIVE COMMITTEE

Chapter 11, Section 1 (e): Changing the name "Committee on Legislation" to "Legal Affairs Committee," in line with a similar change made by other leading professional societies.

XII—47(c). CHAPTER V, SEC 3—(e) ACTIVE MEMBERSHIP FOR (ARMED FORCES,) PHS AND VA OFFICERS

The recommendation of the AMA House of Delegates adopted in Minneapolis, December 2 to 5, 1958,

"To provide a type of membership for the Armed Forces, Public Health Service and the Veterans Administration physicians which will enable them to become ACTIVE members of constituent associations of the AMA."

The MSMS Council approved this recommendation and referred it to the MSMS Committee on Constitution and Bylaws.

XII—47(d). TO INCLUDE DEATH AS REASON FOR REFUND OF MSMS DUES

Chapter 4, Section 4 of the Bylaws be changed to include "death" as well as "resignation" as a reason for refund of State dues.

XII—47(e). MEMBERSHIP ON MSMS ETHICS COMMITTEE

Chapter 11, Section 5, Bylaws. That the matter of the number of doctors to serve on the Ethics Committee be referred to the Committee on Constitution and Bylaws for clarification. (Also number of doctors to serve on Committee on Postgraduate Medical Education.)

XII—47(f). ELECTION OF FOUR DELEGATES TO AMA IN ALTERNATE YEARS

Chapter 12, Section 1, Bylaws. Change the words "provided further that not more than three delegates to the AMA shall be elected in any one year." Now that MSMS is entitled to seven delegates, how can the Bylaws provision be accomplished? Isn't it necessary to elect three one year and four the next year?

XII—47(g). TERMINOLOGY OF "MEETING" AND "SESSION"

Chapter 12, Section 3, Bylaws. The term "general session" is used instead of the correct term, "general meeting," as per Chapter 8. The session is the entire convention; the general meeting is the one in which the officers are installed. The words "general meeting" are used correctly in this same Section 2, three lines from the misuse of the phrase "general session."

This is further clarified in the Bylaws, Chapter 18, Section 1, which states, "A session shall mean all meetings at any one call."

Section 2 says, "A meeting shall mean each separate convention at any one session."

THE SPEAKER: Thank you, Dr. Wiley. These will be referred to the Reference Committee on Constitution and Bylaws.

XV. REPORTS OF COMMITTEES OF HOUSE OF DELEGATES

XV—1. PERMANENT ADVISORY COMMITTEE ON FEES

The report of the Permanent Advisory Committee on Fees is on page 97 of your Handbook. This report will be referred to the Reference Committee on Prepayment Insurance.

XV—2. THE COMMITTEE ON COMMITTEES

G. B. SALTONSTALL, M.D. [Charlevoix]:

This Committee on Committees was created to study the Michigan State Medical Society's committee structure and to recommend reorganization that might result in more efficiency with less expense.

1. Last year the Committee on Committees recommended the following main categories for all MSMS committees:

I. Medical Services
II. Public Health and Public Agencies
III. Public Policy
IV. Medical Education
V. Professional Welfare

This was approved by the 1958 House of Delegates.

2. In an attempt to spell out each committee's scope and functions, your Committee on Committees recommends that each committee be requested to work out such a statement during the 1959-1960 Society year, with the drafts to be given study by The Council in July 1960, for report to next year's House of Delegates; then, desirable amendments to the Bylaws could be considered, to permit inclusion in the Bylaws, where indicated, of the written scope and function of committees. This would give better purpose to work of committees, clearly define their duties, and eliminate any duplication among them.

3. We recommend that each committee be invited to list its main projects for the year, to insure significant goals within its scope in every twelve-month period.

4. We recommend that the House of Delegates authorize the holding of a formal Committee Orientation Workshop annually in connection with the County Secretaries Conference in January. All committee chairmen would be invited. At this session, the philosophy and purposes of the Michigan State Medical Society plus its committee structure and duties would be outlined, and questions would be answered. Plot movies could be used to illustrate ideal committee work, and a brochure should be developed and distributed to help this effort. Annually on the agenda of this Conference would be a discussion on how better to departmentalize or amalgamate committees (which was the main purpose for creating the Committee on Committees).

5. Two subjects that the Committee on Committees is studying are:

(a) That a vice chairman be appointed to the major committees. He could serve during the absence of the chairman and, because of his experience, could be given consideration to head the committee when the chairman moves to a higher post.

(b) That a Councilor be appointed to serve as advisor to each MSMS committee where necessary or when requested.

6. The large and variegated work of the Michigan State Medical Society, run on a committee basis, stresses the need for many committees. However, your Committee on Committees feels that the above recommendations and suggestions, if executed, will tend to improve structural and organizational efficiency. Our annual appraisal also may help in cutting down the number of committees. Our desire is to achieve the most efficient committee organization throughout evolutionary means.

7. With the adoption of these recommendations, this Committee feels that the efficiency of committee organization will be improved. In the interest of intraprofessional relations, it also feels that broad-base participation of Society members is essential in order to assure that committee action reflects the views of the entire profession.

8. The final recommendation of your Committee on Committees is that it be dissolved.

Respectfully submitted,
G. B. SALTONSTALL, M.D., *Chairman*
M. A. DARLING, M.D.
K. H. JOHNSON, M.D.
A. E. SCHILLER, M.D.
G. W. SLAGLE, M.D.
D. BRUCE WILEY, M.D.

THE SPEAKER: I am going to refer this report to the Reference Committee on Officers' Reports.

XV—3. STUDY COMMITTEE ON TERM OF COUNCILOR

On page 97 is the report of the Study Committee on Term of Councilor. This report will be referred to the Reference Committee on Reports of Special Committees.

There is also a committee that was supposed to report every three years on the financial structure of the Michigan State Medical Society. Dr. Engelke was Chairman of that Committee. Due to several circumstances, it was felt by the Chairman and by your Speaker (and the Committee itself was polled) that there was insufficient time and opportunity to complete this study and report at this session of the House. I have therefore asked that this Committee continue its study and report at the 1960 session of the House of Delegates. I hope that meets with your approval.

XV—4. MCIC STUDY ON ALTERNATE METHODS OF PAYMENT TO NON-PARTICIPATING PHYSICIANS

M. L. Lichter, M.D. [Wayne]: This is a report from the Medical Care Insurance Committee which was conducted in conjunction with Mr. Lester P. Dodd, legal counsel of MSMS. Mr. Dodd advised the Committee strictly on the legal matters pertaining to this subject, and the Committee certainly commends him for the invaluable assistance he rendered.

Committee Report

The study upon which this report is based was ordered by the House of Delegates in September 1958 when it approved substitute Resolution No. 8. The final clause states: "RESOLVED that a complete study of the alternate methods of payment for services rendered by nonparticipating physicians be undertaken by the Medical Care Insurance Committee of the Michigan State Medical Society in conjunction with legal counsel for Michigan State Medical Society, and that such study be diligently pursued; and that as soon as the Committee is able to submit its findings based upon such study, its findings and recommendations shall be submitted to the next regular or a special meeting of the House of Delegates called for that purpose."

Before proceeding to its study, the Committee was apprised of some of the background relating to the subject. It was pointed out that the House in its 1957 annual session approved the report of the Committee to Study Comprehensive Prepaid Insurance Plans. Its recommendation No. 2 stated "That Michigan Medical Service be urged to give consideration to the development of a means whereby the patient of a nonparticipating physician will be reimbursed by Michigan Medical Service an amount not to exceed the fee called for in the contract fee schedule, unless the patient directs otherwise." During the ensuing year an administrative procedure was developed in accordance with this recommendation. It was approved on three occasions by the Executive Committee of The Council of Michigan State Medical Society prior to its use in connection with the new Michigan Medical Service contracts.

The Committee was informed of the hearings at the 1958 session of the Reference Committee on Medical Service and Prepayment Insurance. Almost all of the discussion presented before this Committee dealt with the question of the nonparticipating physician. After careful attention to the viewpoints expressed, the Committee came to the conclusion that the proponents of the position of payment directly to nonparticipating physicians expressed three major misgivings. These are:

1. That the nonparticipating physician would not be paid the same fee as is paid to the participating physician.
2. That assignments would not be accepted by Michigan Medical Service.
3. That the problem would be forgotten and never studied.

The Reference Committee, recognizing that these were legitimate concerns, recommended that the House of Delegates allay any doubts with the language in the first "RESOLVED" in substitute Resolution No. 8. This portion is as follows:

1. "RESOLVED, that recompense for services rendered to a patient under Michigan Medical Service Contracts continue to be the same, whether the physician is participating or nonparticipating." This dealt with the first of the concerns expressed.
2. The resolution continues, "The participating physician will be paid directly by Michigan Medical Service. The nonparticipating physician will also be paid by Michigan Medical Service upon obtaining an assignment from his patient." This dealt with the second of the concerns which were expressed.
3. The third concern is dealt within that portion of the Resolution which ordered this study.

Preliminary to its detailed study of this problem the Medical Care Insurance Committee requested Lester P. Dodd, MSMS Legal Counsel, to analyze and comment upon the Act (Act 108 of the Public Acts of 1939) under which Michigan Medical Service is incorporated with particular reference to those provisions having a bearing on the problems related to methods of payment to doctors for medical care rendered to subscribers. Mr. Dodd's opinion rendered pursuant to this request was dated January 5, 1959, and reads as follows:

M. L. Lichter, M.D., Chairman
Medical Care Insurance Committee
Michigan State Medical Society
2900 Oakwood
Melvindale 25, Michigan
Dear Dr. Lichter:

At the request of the Committee, I have attempted to analyze and comment upon the Act (Act 108 of the Public Acts of 1939) under which Michigan Medical Service is incorporated with particular reference to those provisions which might have a bearing on the problems related to methods of payment to doctors for medical care rendered to subscribers:

Any analysis of the Act must, of course, start with a recognition of its basic nature and purposes as expressed in Section 1 of the Act as follows:

> "It is the purpose and intent of this act, and the policy of the legislature, to promote a wider distribution of medical care and to maintain the standing and promote the progress of the science and art of medicine in this state."

Section 2 provides for the incorporation of non-profit corporations whose functions shall be "to provide *medical care* at the expense of the corporation . . . to subscribers to the plan under contracts which will entitle each such subscriber to definite medical and surgical care . . . by *licensed* and *registered* doctors of medicine." Other benefits may, from time to time, be added by the Corporation with the approval of the Insurance Commissioner. This section further stipulates that no contract shall provide for the payment of any cash or other material benefit to the subscriber or his estate on account of death, illness or injury. Thus, it is apparent that the basic obligation of a medical care Corporation, under its contract, is "to provide medical care." It does not and cannot agree to indemnify the subscriber for expense incurred by the subscriber in procuring medical care, (although I see nothing to prohibit its doing so voluntarily) but its obligation is the primary one of providing that care. True, the obligation is qualified in some respects in that the Corporation is required to provide medical care only through doctors of medicine who are licensed by the state and *registered with the Corporation* but it is essential to keep in mind constantly that the basic purpose of the Act is to "promote a wider distribution of medical care" and the basic contract obligation of the Corporation is "to provide medical care to the subscriber."

Consistent with the basic purposes of the Act and with the basic obligation of the Corporation to furnish medical care through registered or participating doctors of medicine, Section 10 provides:

> "Each doctor of medicine, licensed and registered under Act No. 237 of the Public Acts of 1899, as amended, practicing legally in this state shall have the right to register with the Corporation for general or special medical care, as the case may be."

This Section of the Act when read with the provisions of Sections 1 and 2 makes it clear that although the basic contract obligation of the medical care Corporation is to provide medical care through participating doctors of medicine, the Corporation may not restrict participation among doctors of medicine but must, in the interest of promoting "a wide distribution of medical care," permit any licensed and lawfully practicing doctor

of medicine in this state to register with it as a participant, although, obviously, no doctor of medicine can be forced to register or participate if he does not choose to do so.

Section 5 of the Act requires the Corporation to file its proposed contracts, prospectus and proposed advertising with the Insurance Commissioner. The Commissioner has the power to conduct investigations and if, in his opinion, the solicitation of contracts would work a fraud on the persons so solicited, he may *proscribe* applications. This section confers broad powers on the Insurance Commissioner and in practical effect, makes every contract and contract solicitation subject to the scrutiny of the Commissioner and charges him with the duty of making sure that the Corporation's contracts and solicitations are not only such as to comply technically with the provisions of the Act but are designed to carry out the expressed basic purposes.

Specifically, Section 5 charges the Insurance Commissioner with the duty of seeing to it that contracts and contract solicitations do not work a fraud on subscribers or those solicited. It seems reasonably obvious that since the primary contract obligation which the Corporation has a right to undertake is "to provide medical care" the Corporation must have the power and the capacity to fulfill that obligation. This it can have only by having sufficient commitments from doctors of medicine that they will render medical service in accordance with the agreed plan, in short, that they will "participate." Actually the Act uses the word "registered" rather than "participating" but the term is unimportant. What is important is that in order to obviate perpetrating a fraud on subscribers by selling a contract without the means of fulfilling it, the Corporation must have commitments from a sufficient number of doctors of medicine to enable it reasonably to furnish medical care to its subscribers whenever required. The Act does not fix any specific number or percentage of doctors of medicine but commits to the discretion of the Insurance Commissioner the duty of seeing to it that the Corporation writes no contract which it cannot reasonably expect to fulfill. Historically, I believe the participation of not less than fifty per cent of the licensed doctors of medicine of the state has been regarded as the minimum percentage sufficient to give reasonable guarantee of ability to perform. Certainly, in my opinion, any degree of participation less than fifty per cent would seriously, if not vitally, jeopardize the ability of the Corporation to fulfill its contract obligations.

It will thus be seen that "participation" by doctors of medicine is vital to the functioning of any Corporation organized under the Act and that any practices or methods of operation on the part of the Corporation which tend to jeopardize or discourage participation by doctors of medicine tends to jeopardize the entire program.

Certainly the Act when read in its entirety contemplates the widest possible participation by doctors of medicine. Not only is this manifest in provisions above referred to but is basic in the whole structure of the Act. Historically, the Act was passed at the instance of organized medicine in this state. Submission of the Act to the legislature and its subsequent passage constituted an offer and a pledge on the part of the medical profession of this state to widen the distribution of medical care in the interests of the public. A Corporation organized under the Act is declared charitable and benevolent in nature and is exempt from taxation on that basis. Section 8 of the Act provides:

> "The Board of Directors of a non-profit medical care corporation shall have representation from the public and the medical profession of the state; provided, that a majority of the directors shall be at all times persons approved by the officers of the medical profession duly organized to promote statewide the science and art of medicine."

It is therefore abundantly clear that the widest possible participation on the part of doctors of medicine is vital, not only to the legal validity of contracts entered into by the medical care Corporation, but is equally vital to the good faith performance on the part of organized medicine, of the obligations which are imposed upon it under the Act for which it was responsible.

Turning then to the matter of the mechanics of payments for services rendered to subscribers for which the Corporation is obligated, it will be found that the Act is completely silent on this point except for the provision in Section 2 which reads:

> "No contract by or on behalf of any non-profit medical care corporation shall provide for the payment of any cash or other material benefit by that corporation to the subscriber or his estate on account of death, illness or injury, ..."

Since that provision has been the subject of considerable comment and debate and, I may add, misunderstanding, I express my views on it as follows: The primary purpose of that provision is to make clear that the medical care Corporation sells a "service" contract and not an "indemnity" or "insurance" contract. It will be noted that the provision does not *prohibit* the Corporation making a cash payment to its subscriber but does prohibit its *contracting* to "pay cash benefits" in lieu of providing medical care.

In my opinion and in the opinion of Counsel for Michigan Medical Service, reimbursement for expense incurred by a subscriber in obtaining medical service from a nonparticipating doctor is not a "cash benefit on account of death, illness or injury" and, while the subscriber may not be entitled to demand such cash reimbursement, its voluntary payment by the medical care Corporation is not prohibited by the Act.

In short, the quoted provision is one intended for the protection of the subscriber and not for the benefit of the Corporation or for the benefit of doctors.

It will also be found that the Act is completely silent with respect to the manner in which doctors will be paid. It is, of course, logical that this should be so since the Act throughout contemplates only the rendering of services by participating doctors under participating contracts to be made between them and the medical care Corporation. The doctor, whether participating or nonparticipating, is not a party to a medical service contract and has no rights under it. The right of any doctor to be paid directly by the medical care Corporation derives solely from his participation contract with the Corporation and not from the subscriber's contract. Any payment made therefore by the medical care Corporation to a nonparticipating doctor is necessarily made as a matter of grace and not of right.

Historically, and because of the basic concept of service to the subscriber, Michigan Medical Service has made service benefits available to the subscriber over and above its strict contract obligation. This has been done by way of grace reimbursement to the subscriber who has incurred expense in procuring medical care from others than participating doctors as well as by grace payments directly to nonparticipating doctors. I am of the opinion that nothing in the Act expressly prohibits such direct payments but that they can be made properly only in such manner and to such extent as will insure against the perpetration of fraud on the public through

(a) impairment of the degree of participation necessary to enable Michigan Medical Service to fulfill its contract commitments, and

(b) false or misleading advertisements and representations in contract solicitations by reason of concealment from subscribers of the effect of such payments.

Very truly yours,
LESTER P. DODD, *Legal Counsel*

1604 Dime Building
Detroit 26, Michigan

This study assignment was given detailed consideration at the several meetings of the Medical Care Insurance Committee during the winter and spring. On June 22, 1959, the Committee sent a letter, together with a copy of legal counsel's opinion, to the president and secretary of each component county society asking for proposals or suggestions.

Despite this request and the widespread interest evidenced in the consideration of this question at the 1958 meeting of the House of Delegates, only six replies were received.

At the request of the committee, management of Michigan Medical Service prepared a statement summarizing its contract offerings and commitments in this connection.

The Committee further devoted the major portion of its meetings on July 15 and 16, 1959, to the consideration of this problem and to a detailed discussion and analysis of every proposed alternate method of payment developed during its study.

Criteria Used

Early in its study, the Committee developed the following set of criteria against which every proposed method of payment could be tested. The criteria used are not inventions of the Committee but are, in each case, based upon statements or principles heretofore adopted by the House of Delegates.

1. Is the proposed method of payment consistent with the "service" principle?
2. Does the proposed method of payment tend to insure such degree of doctor participation as will guarantee the ability of Michigan Medical Service to perform its "service" contracts?
3. Is the proposed method of payment consistent with the good faith performance on the part of The Michigan State Medical Society of its obligation "to promote a wider distribution of medical care"?
4. Does the proposed method of payment adequately protect the subscriber against unknown and unexpected charges in excess of the service benefit to which he is entitled?
5. Does the proposed method of payment guard against an unwarranted "discrimination" between doctors or create "classes" of doctors?
6. Is the proposed method of payment consistent with the intent, purposes and express provisions of the Act under which Michigan Medical Service is incorporated?
7. Will the proposed method of payment jeopardize the good faith honoring of existing contracts, contract representations and solicitations made by Michigan Medical Service based upon principles adopted and made public by Michigan State Medical Society?

Proposed Methods of Payment Studied by the Committee

Every method of payment that has been proposed or that has come to the attention of the Committee is set forth and commented upon, as follows. The Committee has weighed each of these proposals and has attempted to evaluate each in the light of the criteria set forth above. The sequence in which they are set forth and discussed is to be given no significance.

Proposal A—Payment to be made to participating doctors only.—Although, in the opinion of legal counsel and of the Committee, this proposed method of payment would be consistent with the letter of Act 108, the Committee feels that it is open to the following valid objections:

1. It would tend to conflict with the basic principle of "freedom of choice" of physicians by the subscriber.
2. It would conflict with the basic obligation of the Michigan State Medical Society to "promote a wider distribution of medical care," and,
3. In the opinion of legal counsel, it would necessarily require the publication of lists of participating doctors, which practice has been specifically disapproved by the House of Delegates. (See Resolution, P. 51, Digest of Proceedings of House of Delegates for 1959.)

The Committee feels, therefore, that Proposal A would conflict with Criteria 3 and 5 and must be disapproved.

Proposal B—Payment to be made to the participating doctor of the full scheduled fee and payment to be made to the nonparticipating doctor of a lesser designated percentage of the scheduled fee.—The Committee finds it conceivable that this payment practice could be followed. However, the Committee does not favor adoption of this proposal because:

1. It would, in all probability, work hardship on subscribers since nonparticipating doctors would, in many cases, bill the subscriber directly for an amount which would result in a net increase in cost to the subscriber and in depriving the subscriber of full "service" benefits.
2. It would cast unfavorable reflection upon the nonparticipating doctor and would, in a real sense, tend to create "classes" of doctors.

The Committee feels, therefore, that Proposal B would conflict with Criteria 3, 4, 5, and 6 and must be disapproved.

Proposal C—Payment to be made to the participating doctor directly in all cases and to be made directly to the nonparticipating doctor (A) only if at the time of filing the service report he agrees to accept the scheduled fee as payment in full for his services and (B) only if and while the percentage of participation remains at or above a specified level.—This proposal appears at first glance to have a certain degree of merit. The Committee feels, however, that it cannot recommend it for the following reasons:

1. It would tend to reduce the desire to participate and, hence, would tend to reduce participation below the point where service could be assured.
2. It would result in adverse and undesirable public relations because of the great likelihood of misunderstandings between doctor and patient.
3. It would impose upon Michigan Medical Service almost insoluble administrative problems.

The Committee feels, therefore, that Proposal C would conflict with Criteria 2, 3, 4, 6 and 7 and must therefore be disapproved.

Proposal D—Payment to be made directly to participating and nonparticipating doctors without distinction upon and after the publication of lists of participating doctors and the dissemination of appropriate information to subscribers apprising them that they may be subject to additional charges from nonparticipating doctors.—Again, although in the opinion of legal counsel and of the Committee this proposed method of payment would be in accord with the strict letter of the Act, it is open to valid practical objections. Principally these are:

1. The publication of lists of participating doctors has been disapproved by the House of Delegates as above set forth.
2. The dissemination of the type of information necessary to protect the subscriber might be interpreted as a "warning" against the nonparticipating doctor and thereby tend to weaken the confidence and esteem in which the profession is held by the public as well as to create friction and dissension within the profession.

The Committee feels, therefore, that Proposal D would conflict with Criteria 3 and 5, and must therefore be disapproved.

Proposal E—Payment to be made directly to participating and nonparticipating doctors without distinction, without the publication of lists of participating doctors

and without the dissemination of appropriate information to subscribers.—The Committee is fully conscious of the fact that many members of the Society feel strongly and sincerely that this proposed method of payment should be adopted. It is with genuine regret, therefore, that the Committee feels that it must recommend against it for the following reasons:

1. It would place a premium on nonparticipation by giving the nonparticipating doctor all of the advantages and none of the restrictions of participation and would thereby:
   (a) tend to impair the maintenance of the degree of participation necessary to insure the ability to furnish service to the subscriber, and,
   (b) place the participating doctor in a class secondary to the nonparticipating doctor.
2. It would be unfair to subscribers entitled to full service benefits to make all payments directly and at the same time withhold from subscribers information necessary for them to have in order to obtain full "service" benefits. In the opinion of the Committee and of legal counsel, this practice would:
   (a) be violative of the intent and purpose of the Act under which Michigan Medical Service is organized;
   (b) lower the esteem in which the medical profession is held by the public,
   (c) be inconsistent with the principle of the "service" contract,
   (d) be inconsistent with the good faith performance by Michigan State Medical Society of its obligation to "promote a wider distribution of medical care," and,
   (e) would vitally impair the ability of Michigan Medical Service to honor existing contracts and commitments and to fulfill good faith offerings.

The Committee feels, therefore, that Proposal E would conflict with each of the Criteria above set forth and must be disapproved.

Recommendations

Having conscientiously canvassed and studied all suggested alternatives, the Committee is of the unanimous opinion that it must recommend continuance of the present policy of making payment to nonparticipating doctors only upon assignment from the subscriber.

This method alone appears to meet all of the criteria against which all suggested alternatives have been tested.

1. The present method is consistent with the "service" principle.
2. The present method encourages but does not coerce participation. This factor is of vital significance since, as has been pointed out in legal counsel's opinion,—"participation by doctors of medicine is vital . . . and any practices or methods of operation . . . which tend to jeopardize or discourage participation . . . tend to jeopardize the entire program. . . . It is therefore abundantly clear that the widest possible participation on the part of doctors of medicine is vital, not only to the legal validity of contracts entered into by the medical care corporation, but is equally vital to the good faith performance on the part of organized medicine, of the obligations which are imposed upon it under the Act for which it was responsible."
3. The present method is consistent with good faith performance on the part of the Michigan State Medical Society of its obligation "to promote a wider distribution of medical care" by providing "service" benefits rather than "indemnity" benefits. As has also been pointed out in legal counsel's opinion, the Act under which Michigan Medical Service was created was the handiwork of the Michigan State Medical Society and by the terms of the Act the responsibility for maintaining participation, widening benefits and furnishing "services" at the price contracted for is directly upon the Society.
   The conclusion seems inescapable, therefore, that any method of payment which fails to protect a subscriber's right to receive full service benefits must reflect unfavorably upon the good faith performance of the obligation which the Michigan State Medical Society has assumed.
4. The present method affords a measure of protection to the subscriber against unknown and unexpected charges in excess of the service benefit to which he is entitled.
   The Committee is of the opinion that such protection must be afforded the subscriber not only because it is one of the moral obligations owed by the Michigan State Medical Society but also because, in the opinion of legal counsel, it is a legal obligation.
5. The present method of payment does not imply an unwarranted "discrimination" between participating and nonparticipating doctors, nor does it place nonparticipating doctors in an inferior "class."
   The Committee is cognizant of the fact that strong feeling exists on the subject of so-called "discrimination" and "creation of classes of doctors." It believes, however, that such feeling results largely from a failure to recognize the basic concept of the "service" contract. As is pointed out in legal counsel's opinion,—there is a necessary *"distinction"* between participating and nonparticipating doctors. In order to function at all, the Medical Service Corporation must have participating doctors. All doctors have a right to participate. Nonparticipating doctors, however, by their own choice, maintain a status distinct from their participating colleagues. Participating doctors are bound to accept scheduled fees. Distinct therefrom, by their own choice, nonparticipating doctors assume no such responsibility.
   Distinction, however, does not mean or imply "discrimination." If it did, then participating doctors would be discriminated against in that they are obligated to accept fixed fees, whereas nonparticipating doctors are free to charge what they choose.
6. The present method of payment is consistent with the intent, purposes and provisions of the Act under which Michigan Medical Service was organized. (See legal opinion preceding.)
7. Any alteration of the present method of payment which would remove all distinction between participating and nonparticipating doctors without otherwise safeguarding the right of the subscriber to receive full service benefits would necessarily jeopardize the honoring of existing contracts, representations and solicitations which have been made in good faith by Michigan Medical Service based upon principles adopted and made public by the Michigan State Medical Society.

MEDICAL CARE INSURANCE COMMITTEE
MICHIGAN STATE MEDICAL SOCIETY
M. L. Lichter, M.D., *(Chairman)*
J. J. Lightbody, M.D.
J. W. Logie, M.D.
R. L. Mainwaring, M.D.
D. G. Pike, M.D.
F. C. Ryan, M.D.
W. F. Strong, M.D.

Report on Alternative Methods of Payment to Nonparticipating Physicians

Attachments:
Exhibit 1—Copy of Letter Sent by MCIC to Presidents and Secretaries of Component Medical Societies.

Exhibit 2—Statement from Michigan Medical Service about Its Contract Offerings and Commitments.
Exhibit 3—Scoring Sheet on Criterion and Alternative Proposals.
Exhibit 4—Copy of Michigan Medical Service Enabling Act.

Exhibit 1

June 22, 1959
To Presidents and Secretaries of
Every County Medical Society:

We are asking your help in a task assigned to the MSMS Medical Care Insurance Committee by the 1958 House of Delegates.
During the past months we have been studying possible alternative methods of paying physicians under M-75. The results are to be presented to the 1959 House of Delegates.
You and the members of your Society can materially aid our study by presenting any proposals and suggestions you may have to our Committee.
We would appreciate receiving these by July 10 so that they can be studied at our forthcoming meeting of July 15. However, proposals received after that date will be considered. These should be in writing so that they can be given thorough and detailed consideration.
It may be helpful to you and your Society to have the enclosed copy of legal opinion prepared by MSMS Legal Counsel Lester P. Dodd. Additional copies may be obtained by writing MSMS headquarters, Box 539, Lansing 3.
We realize that some individuals may wish to appear before the MCIC to explain their written proposals. If so, we would welcome their advice. Write me, so a meeting date can be arranged.
During the summer, we appreciate that it may not be possible for you to announce our Committee's request at a regular Society meeting, but we urge that you relay our request for advice through personal contact, staff meetings or other means at your disposal.
The MCIC wishes and will welcome the broadest possible expression of views on this important matter and sincerely appreciates your assistance.

Cordially,
Max L. Lichter, M.D., *Chairman*
Medical Care Insurance Committee

Exhibit 2

To: Medical Care Insurance Committee, Michigan State Medical Society
From: L. Gordon Goodrich, *Vice President and General Manager, Michigan Medical Service*

PAYMENT FOR SERVICES AS A MARKET CONSIDERATION

Numerous considerations have bearing on the manner of payment from Michigan Medical Service to physicians. We will herein document merely the market considerations.
Successful public relations on the part of the medical profession and on the part of a prepayment agency are largely based on understanding, each of the other. Compared to the general public, the medical profession and MMS are relatively well organized and, therefore, much more capable of understanding within their own ranks. In addition to the gross education required to develop public understanding, there is a public aversion to the reading and understanding of insurance type contracts. Public understanding, faith, and trust, therefore, must be developed through a combination of documents and deeds.
In the prepayment field we are fulfilling a need for financial security, which means that in the tripartite relationship, our common interest is understanding of the financial aspects of that relationship. In this area the best means of achieving understanding is through financial predictability. Our stock-in-trade, "service contracts," furnishes the greatest degree of financial predictability, which is the principal reason for the outstanding success of MMS. M-75 is predicated on service at income levels reaching approximately 80% of the state's population. The percentage of doctors participating in service through the Michigan State Medical Society is nearing this same percentage. Thus, the service aspect predominates and the subscriber patient can, in most cases, predict the financial outcome of his experience.
Prior to M-75, studies and reports indicated that we had reached a point where service was a minor factor. In many instances, the service prospects of the patient were not introduced by the patient or the doctor prior to treatment. After treatment the patient received an additional charge over and above the MMS fee in a majority of instances. We found, also, that the subscriber patient was not prone to inquire or complain to his doctor, but merely lost faith in the system and sometimes complained to other agencies. At this stage in history enrolled public distinguished very little between participating and nonparticipating doctors, but their feelings were strong in favor of the return of service.
There was strong sentiment and requests for the publishing of lists of participating doctors in order that subscribers might be enlightened and enabled to secure the service due them under their contracts. Michigan Medical Service does not publish lists of participating doctors. There also existed strong sentiment toward the purchase of low level indemnity surgical and medical fee schedules as a means of some financial control to the subscriber and to curb inflation that did not include added benefits and security.
Most frequently, subscriber patients received a billing "for professional services." Our switchboard and mail were busy with questions of whether the doctor had been billed and paid the Blue Shield fee. We had reached a dangerously low ebb in the area of predictability. The market was sorely in need of reassurance that private industry and medicine would restore service and predictability.
M-75 was that reassurance. The new income limits restored the 80% coverage level and certification of income offered promise of restoring the maximum application of service as originally planned in 1939. Employers were reluctant to add the extra administrative burden of income certification, but offered little resistance when shown that this effort was in exchange for predictability by facilitating service. Both industry and labor indicated many reservations about M-75 such as its added cost, the existence of deductibles, increased fee schedules and others, but were willing to offset those reservations with the promise of the service and predictability potential of M-75. The record will show that major industry and major labor have held their fire and have supported the "certified" M-75 unreservedly. Smaller industry and labor are coming around as quickly as they gain the same degree of understanding and faith in M-75.
At the time M-75 was sold to the Big 3 automobile companies, the changed method of payment in nonparticipating cases was specifically discussed, met with their favor and was committed. This was also the case with the UAW except they were more expressive about it. As we have sold or converted other groups to M-75 we have advised them that along with the more efficient "certification" method, we have changed the payment method to eliminate subscriber misunderstanding. It is of importance that the plan and medicine honor commitments made to employers and subscribers or their representative.
Since the change in procedure we have mailed with the check to some 100,000 subscribers the enclosed explanation. This means that precedent has been spread to a sizeable portion of our enrollment at the subscriber level. Even though it is possible to send bulletins to

groups amending procedure, it is virtually impossible to so announce changes to subscribers except at times when there is adequate change to warrant costly distribution of material to all subscribers. Group heads generally resist such efforts since the burden and expense rest largely on them.

The great service advances in M-75, however, make the distinction between participating doctor care and nonparticipating doctor care financially significant. To satisfy industry and labor that there would be adequate predictability, it was necessary for the new program to contain mechanical devices which would remind subscriber patients, at the earliest possible opportunity, that the service obligation did not exist because a nonparticipating physician had furnished the care. We found that in the immediate past (prior to M-75), the patient in most instances had not been made aware of this distinction until he made inquiry about the "for professional services" billing he had received. At this point he suddenly and usually unexpectedly became aware that he owed additional money to the doctor. On learning that the payment had been sent directly to the nonparticipating doctor he questioned the procedure since there existed no obligation to the doctor or service advantage to the patient but rather, he learned, that it was "his" relationship when a nonparticipating doctor was utilized not one between the doctor and the plan. We were then accused of operating the plan lopsidedly in favor of the doctors rather than on the tripartite basis.

Therefore, it became necessary in M-75 to employ the one means available to the prepayment agency to clarify the subscribers' status at the earliest point possible, to distinguish in the method of payment of the fee.

Mailing of the payment to the patient in the absence of an assignment not only advises him of his financial status at the earliest date available to MMS, but also provides opportunity for the patient to discuss the financial aspects of his case with the doctor, permitting the patient to gain understanding of any additional charge and of the operation of the Class II coverages and deductibles. The execution of an assignment generally assures the same understanding.

With this assurance of predictability, we were able to satisfy our buyers that subscribers would have every possible opportunity to understand their financial status. As a result, many pressures including those for participating doctor lists have lessened, particularly in areas where participation is good.

The fact that we've had a relatively quiet and cooperative market in the past year is largely due to the fulfillment of our obligations and assurances that were made as M-75 developed. These were considered by the market as covering the minimum essentials, especially as compared with other promised alternatives. There is very real evidence that any apparent backsliding will bring forth expression of all sorts of market resentments. We are barely able to hold the line on the cost aspect alone. We've gained much credit for what has been accomplished and much of that credit is in anticipation of further progress in the market interest. Even status quo is extremely dangerous.

People all through the country are regarding M-75 as medicine's understanding and answer to the public need. We are much more than a noble local experiment.

MICHIGAN MEDICAL SERVICE
CHECK TRANSMITTAL TO SUBSCRIBER

This check covers Michigan Medical Service benefits as reported by your doctor. The doctor's entire charge for his services is your responsibility.

Exhibit 3

	PROPOSAL					
Criterion	*A*	*B*	*C*	*D*	*E*	*F*
1	YES	YES	YES	YES	NO	YES
2	YES	YES	NO	YES	NO	YES
3	NO	NO	NO	NO	NO	YES
4	YES	NO	NO	YES	NO	YES
5	NO	NO	YES	NO	NO	YES
6	YES	NO	NO	YES	NO	YES
7	YES	YES	NO	YES	NO	YES

Exhibit 4

ENABLING ACT*
(M.P.A. 108-1939)

AN ACT to provide for and to regulate the incorporation of non-profit medical care corporations; to provide for the supervision and regulation of such corporations by the state commissioner of insurance; and to prescribe penalties for the violation of the provisions of this act.

The People of the State of Michigan enact:

Section 1. It is the purpose and intent of this act, and the policy of the legislature, to promote a wider distribution of medical care and to maintain the standing and promote the progress of the science and art of medicine in this state.

Section 2. Any number of persons not less than 7, all of whom shall be residents of the State of Michigan, may form a corporation, under and in conformity with the provisions of this act, for the purpose of establishing, maintaining and operating a voluntary non-profit medical care plan, whereby medical care is provided at the expense of such corporation to such persons or groups of persons as shall become subscribers to such plan, under contracts which will entitle each such subscriber to definite medical and surgical care, appliances and supplies, by licensed and registered doctors of medicine in their offices, in hospitals, and in the home. Such other benefits may be added from time to time as the corporation may determine, with the approval of the commissioner of insurance. No contract by or on behalf of any non-profit medical care corporation shall provide for the payment of any cash or other material benefit by that corporation to the subscriber or his estate on account of death, illness or injury, nor be in any way related to the payment of any such benefit by any other agency. Medical care shall not be considered to include hospital service.

Any such non-profit medical care corporation shall be subject to regulation and supervision by the commissioner of insurance as hereinafter provided. Any such non-profit medical care corporation shall not be subject to the laws of this state with respect to insurance corporations or with respect to corporations except as provided in this act governed by the corporation laws, and no non-profit medical care corporation may be incorporated in this state except under and in accordance with the provisions of this act; provided, however, that the provisions of sections 117 to 132 inclusive, of Act No. 327 of the Public Acts of 1931, as amended, and as hereafter amended, shall be applicable to all corporations formed under or governed by this act, except as herein otherwise specifically provided.

Section 3. The persons so associating shall subscribe to articles of association which shall contain:

First, the names of the associates, and their places of residence;

Second, the location of the principal office for the transaction of business in this state;

Third, the name by which the corporation shall be known, such name not to include the words insurance, casualty, surety, health and accident, mutual or other words descriptive of the insurance or surety business, and

*Michigan Medical Service is incorporated under this **Act.**

such name shall not be sufficiently similar to that of any insurance or surety company doing business in this or other states at the time of incorporation, to tend to create confusion in identity therewith, in the judgment of the commissioner of insurance;

Fourth, the purposes of the corporation;

Fifth, the term of existence of the corporation, which shall be for 30 years, or any multiple of 30 years, or in perpetuity;

Sixth, the time for the holding of the annual meeting of the corporation;

Seventh, any terms and conditions of membership therein which the incorporators may have agreed upon, and which they may deem it important to have set forth in said articles;

Eighth, any other terms and conditions, not inconsistent with the provisions of this act, necessary for the conduct of the affairs of the corporation.

Section 4. Such articles shall be acknowledged by the persons signing the same before some officer of this state authorized to take acknowledgments of deeds, who shall append thereto his certificate of acknowledgment. All such articles shall be in triplicate and upon proper forms as prescribed by the commissioner of insurance. Before said articles of association shall be effective for any purpose, the same shall be submitted to the attorney general for his examination, and if found by him to be in compliance with this act, he shall so certify to the commissioner of insurance. Each corporation shall pay to the commissioner of insurance a filing fee for its articles of association, or any amendments thereto, the sum of $10.00. Such fees shall be covered into the state treasury for the benefit of the general fund.

Any corporation subject to the provisions of this act may, in its discretion, with the approval of the commissioner of insurance, and in the manner provided in its articles, amend its articles of association in any manner not inconsistent with the provisions of this act.

Section 5. The persons so associating, before entering into any contracts or securing any applications of subscribers, shall file in the office of the commissioner of insurance, together with triplicate copies of the said articles of association with the certificate of the attorney general annexed thereto, a statement showing in full detail the plan upon which it proposes to transact business, a copy of by-laws, a copy of contracts to be issued to subscribers, a copy of its prospectus, and proposed advertising to be used in the solicitation of contracts of subscribers. The commissioner of insurance shall examine the statements and documents so presented to him by the persons so associating, and shall have the power to conduct any investigation which he may deem necessary, and to hear such incorporators, and to examine under oath any persons interested or connected with the said proposed corporation. If, in the opinion of the commissioner of insurance, the incorporation or solicitation of contracts would work a fraud upon the persons so solicited, he shall have authority to refuse to license the said corporation to proceed in the organization and promotion of the association. If, upon examination of the said articles of association, the documents and instruments above mentioned, and such further investigation as the commissioner of insurance shall make, he is satisfied that (a) the solicitation of subscriptions would not work a fraud upon the persons so solicited; (b) the rates to be charged and the benefits to be provided are fair and reasonable; (c) the amount of money actually available for working capital is sufficient to carry all acquisition costs and operating expenses for a reasonable period of time from the date of issuance of the certificate of authority, and is not less than the sum of $10,000.00; (d) the amounts contributed as the working capital of the corporation are repayable only out of surplus earnings of such corporation, and (e) adequate and reasonable reserves to insure the maturity of the contracts are provided, he shall return to such incorporators one copy of such articles of association, certified for filing with the county clerk of the county in which said corporation proposes to maintain its principal business office, and 1 copy to be certified by the commissioner of insurance for the records of the corporation itself, and shall retain 1 copy for his office files, and he shall deliver to such corporation a certificate of authority to commence business and issue contracts entitling subscribers to definite medical and surgical care, which contracts have been approved by him.

The said commissioner of insurance shall have power and authority, at any time to revoke, after reasonable notice and hearing, any certificate, order or consent made by him to the said corporation, to proscribe applications for membership, upon being satisfied that the further solicitation of subscribers will work a fraud upon the persons so solicited, and he shall have authority to make such investigation from time to time as he may deem best, and grant hearings to such incorporators in their relation thereto. The commissioner of insurance shall have the same authority in respect to taking over and/or liquidating corporations formed and/or doing business under this act as is provided by chapter 3 of part 1 of Act No. 256 of Public Acts of 1917, as amended.

Any dissolution or liquidation of a corporation subject to the provisions of this act shall be conducted under the supervision of the commissioner of insurance, who shall have all power with respect thereto granted to him under the provisions of law with respect to the dissolution and liquidation of insurance companies.

Section 6. The commissioner of insurance, or any deputy or examiner or any other person whom he shall appoint, shall have the power of visitation and examination into the affairs of such corporation and free access to all of the books, papers and documents that relate to the business of the corporation, and may summon and qualify witnesses under oath, to examine its officers, agents or employes or any other persons having knowledge of the affairs, transactions and conditions of the corporation. The per diem, traveling and other necessary expenses in connection therewith shall be paid by the corporation.

Section 7. Each such corporation shall annually on or before the first day of March of each year file in the office of the commissioner of insurance a sworn statement verified by at least 2 of the principal officers of said corporation showing its condition on the thirty-first day of December, then next preceding, which shall be in such form and shall contain such matters as the commissioner of insurance shall prescribe. In case any such corporation shall fail to file any such annual statement as herein required, the said commissioner of insurance shall be authorized and empowered to suspend the certificate of authority issued to such corporation until such statement shall be properly filed.

Section 8. The board of directors of a non-profit medical care corporation shall have representation from the public and the medical profession of the state: Provided, that a majority of the directors shall be at all times persons approved by the officers of the medical profession duly organized to promote state-wide the science and art of medicine.

Section 9. A medical care corporation may, in its discretion, by its articles of association or its by-laws limit the benefits that it will furnish, and may divide such benefits as it elects to furnish into classes or kinds. In the absence of any such limitation or division of service, a non-profit medical care corporation shall be authorized to provide both general and special medical and surgical care benefits, including such service as may be necessarily incident to such medical care. A medical care corporation may, in its discretion, limit the issuance of contracts to residents of counties as specified by the by-laws.

Section 10. Each doctor of medicine, licensed and registered under Act No. 237 of the Public Acts of 1899, as amended, practicing legally in this state shall have the right to register with the corporation for general or special medical care, as the case may be. A non-profit

medical care corporation shall impose no restrictions on the doctors of medicine who treat its subscribers as to methods of diagnosis or treatment. The private physician-patient relationship shall be maintained and the subscriber shall at all times have free choice of doctor of medicine. Any employe, agent, officer or member of the board of directors of any such corporation who shall influence or attempt to influence any person in the choosing and selecting of his own physician, shall be guilty of a misdemeanor, and upon conviction, thereof shall be punished as provided by the laws of this state.

Section 11. A non-profit medical care corporation shall, before beginning business, and at all times thereafter while engaged in business, maintain reserves in such form and amount as the commissioner of insurance may determine: Provided, that the funds of any such corporation shall be invested only in securities permitted by the laws of this state for the investment of assets of life insurance companies.

Section 12. All medical care rendered on behalf of a non-profit medical care corporation shall be in accordance with the accepted medical practice in the community at all times.

A non-profit medical care corporation shall not furnish medical care otherwise than through doctors of medicine, licensed and registered under Act No. 237 of the Public Acts of 1899, as amended.

Section 13. Each non-profit medical care corporation may, in its discretion, receive and accept from governmental agencies payment covering all or part of the cost of subscriptions to provide medical care for needy persons. Each non-profit medical care corporation may in its discretion receive and accept from private agencies, corporations, associations, groups or individuals, payments covering all or part of the cost of subscriptions to provide medical care for needy and other persons. All contracts for medical care shall be between the medical care corporation and the person to receive such care.

Section 14. No action at law based upon or arising out of the physician-patient relationship shall be maintained against a non-profit medical care corporation.

Section 15. Each corporation subject to the provisions of this act is hereby declared to be a charitable and benevolent institution, and its funds and property shall be exempt from taxation by the state, or any political subdivision thereof.

Section 16. Any person, or any agent or officer of a corporation, who violates any of the provisions of this act, or who shall make any false statement with respect to any report or statement required by this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished as provided by the laws of this state.

Section 17. Should any provision or section of this act be held to be invalid for any reason, such holding shall not be construed as affecting the validity of any remaining portion of such section of this act, it being the legislative intent that this act shall stand, nothwithstanding the invalidity of any such provision or section.

This act is ordered to take immediate effect.

THE SPEAKER: I think Dr. Lichter and his Committee should be thanked for the very intensive and extensive work they have done in evaluating this problem and making their report.

This report will be referred to the Reference Committee on Prepayment Insurance.

XI—MICHIGAN'S FOREMOST FAMILY PHYSICIAN

Now I would like to interrupt our morning business for a few moments, and I assure you the rest of the morning will not take too long to complete.

Last evening this House of Delegates voted in an overwhelming fashion to select the Family Physician of the Year. Dr. Claytor is here, and I would like the delegates from Saginaw County to meet him and conduct him into the room, with our President-elect, Dr. Darling.

(The audience arose and applauded as Dr. Claytor was escorted into the House of Delegates.)

THE SPEAKER: Dr. Claytor, I am sure you are aquainted with the very democratic way in which the Foremost Family Physician of the Year is chosen by the physicians of the entire State of Michigan. I will not go into the details because I am sure all of you are acquainted with them.

Last evening at this House of Delegates the names of three men were presented for consideration for this Award. You have been chosen by this House to represent the physicians of this State in relation to the public. It is my extreme pleasure to present to you this Award, which I will read.

"Michigan's Foremost Family Physician Award for the year 1959 is presented to Archer A. Claytor, M.D., Saginaw, Michigan. For valued service rendered to the health of the people of Michigan in a quarter century of practice, and for constant constructive effort to improve the profession. Awarded this thirtieth day of September, 1959, by the Michigan State Medical Society. s/ D. Bruce Wiley, M.D., Secretary, and Milton A. Darling, M.D., President." *(Applause)*

Now I should like to introduce Dr. Claytor's wife, Mrs. Claytor *(Applause)*, and his brother, Dr. Claytor, who is a practicing physician in Grand Rapids. *(Applause)*

Dr. Claytor, we hope you will have a few remarks to make to us.

ARCHER A. CLAYTOR, M.D. [Saginaw]: Mr. Speaker of the House, President of the State Medical Society, and Delegates composing this august body:

Had I prepared a speech I wouldn't be able to give it on this occasion. I am greatly surprised at the honor that this Society has bestowed upon me. I went to bed last night rather quietly, thinking I would have a good night's rest. The telephone rang around midnight, and I was told of this great honor. I didn't have much sleep from then on.

I was as much surprised at getting this award as would be a man who is condemned and sent to the penitentiary, and then upon arrival at the gate finds his sentence has been suspended. I didn't think this could happen to a man of my group, and I am sure it couldn't have happened anywhere except in the United States.

I wish to thank the Saginaw Medical Society for presenting me as a candidate to this body, and I wish to thank each of you for accepting me and giving me the honor of being the Doctor of the Year for 1959 for the State of Michigan.

Thank you. *(Applause)*

THE SPEAKER: I think it is a distinct privilege for all of us to welcome Dr. Claytor into this field of being the Foremost Family Physician of the Year.

XV—5. AD HOC STUDY COMMITTEE ON REGIONAL ELECTION OF MMS BOARD MEMBERS

SECRETARY WILEY: This annual report was submitted by Dr. A. D. Allen, Chairman.

"The ad hoc Study Committee on Regional Election of Board Members of Michigan Medical Service met at the Sheraton-Cadillac Hotel on July 2, 1959. After a thorough discussion of the subject, the Committee recommends that Article II, Section 2 of the Bylaws of the Michigan Medical Service be changed as follows:

"1. That one Board member be elected for each Councilor District, except Districts 12 and 13, which because of the small representation in the House of Delegates would make it impractical for one member of each of the two Districts.

"2. That Article II, Section 2 permit the nomination of Directors by filing with the Secretary a petition signed by at least five members instead of ten as presently provided for in the Section."

THE SPEAKER: This report will be referred to the Reference Committee on Reports of Special Committees.

XVI. REPORTS OF MSMS STANDING COMMITTEES

XVI—1. COMMITTEE ON POSTGRADUATE MEDICAL EDUCATION

XVI—2. PREVENTIVE MEDICINE COMMITTEE AND ITS SUB-COMMITTEES

XVI—3. PUBLIC RELATIONS COMMITTEE AND ITS SUB-COMMITTEES

XVI—4. ETHICS COMMITTEE

XVI—5. LEGISLATIVE COMMITTEE

These reports will be referred to the Reference Committee on Standing Committees.

XVII. REPORTS OF MICHIGAN STATE MEDICAL SOCIETY SPECIAL COMMITTEES

XVII—1. SCIENTIFIC RADIO COMMITTEE

XVII—2. ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

XVII—3. ADVISORY COMMITTEE TO THE MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

The Mediation Committee has no report.

XVII—4. COMMITTEE ON STUDY OF PREVENTION OF HIGHWAY ACCIDENTS

These reports will be referred to the Reference Committee on Special Committee reports.

THE SPEAKER: The meeting is recessed until 8 p.m. tonight.

(The meeting recessed at 12:30 p.m.)

MONDAY EVENING SESSION

September 28, 1959

The meeting reconvened at 8:20 p.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

XVIII. REPORTS OF THE REFERENCE COMMITTEES

XVIII—1. ON OFFICERS' REPORTS

DR. BLODGETT, *Chairman.*

XVIII—1(a). SPEAKER'S REMARKS

J. B. BLODGETT, M.D.: The Reference Committee approves the brevity of the Speaker's remarks, and commends him for the vigor and efficiency which he has devoted to this office.

XVIII—1(b). PRESIDENT'S REMARKS

J. B. BLODGETT, M.D.: The Reference Committee approves the remarks of the President, and commends the energy and sincerity with which he has served the Michigan State Medical Society during the past year.

XVIII—1(c). PRESIDENT-ELECT'S REMARKS

J. B. BLODGETT, M.D.: The Reference Committee approves the President-elect's report and acknowledges the importance of the factual data which are presented. We anticipate excellent progress under his guidance and direction.

XVIII—1(d). REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION AND DR. HYLAND'S OUTLINE OF "THE AMA TODAY"

J. B. BLODGETT, M.D.: Your Reference Committee accepts the report of the AMA Delegates and approves the stand of the Delegates against panel practice and their vote in favor of free choice of physician. The Reference Committee appreciates the infinite time and detailed study required of our Delegates to properly represent the State in the work of the AMA House of Delegates.

XVIII—1(e). REPORT OF WOMAN'S AUXILIARY

J. B. BLODGETT, M.D.: The Reference Committee unanimously accepts the gracious report of Mrs. Robert Reagan of Benton Harbor. It feels that much encouragement should be given to the Auxiliary in its many important contributions to the Michigan State Medical Society.

XVIII—1(f). REPORT OF THE MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

J. B. BLODGETT, M.D.: The Reference Committee unanimously accepts the splendid report offered by Miss Donna Hislop of Muskegon. We wholeheartedly endorse the constructive efforts of the MSMAS in behalf of organized medicine in Michigan. We sincerely urge their continued programs.

XVIII—1(g). REPORT OF THE COMMITTEE ON COMMITTEES

J. B. BLODGETT, M.D.: The Reference Committee approves the report with one exception. It recommends that the Committee not be dissolved until its good work is completed.

Mr. Vice Speaker, I move the adoption of this report of the Reference Committee as a whole.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—2. ON REPORTS OF SPECIAL COMMITTEES

A. B. LEVANT, M.D.: The following reports, with the exception of the Mediation Committee, of which there was no report given to us, were approved:

XVIII—2(a). SCIENTIFIC RADIO COMMITTEE

XVIII—2(b). ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

XVIII—2(c). ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

XVIII—2(d). HIGHWAY ACCIDENTS COMMITTEE

Mr. Vice Speaker, I move the adoption of this part of our report.

C. W. OAKES, M.D. [Huron]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—2(e). HOUSE OF DELEGATES STUDY COMMITTEE ON TERM OF COUNCILOR

The report, as published on page 97 of the Handbook, was read.

A. B. LEVANT, M.D.: The Reference Committee recommends that no action be taken on this report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—2(f). AD HOC STUDY COMMITTEE ON REGIONAL ELECTION OF MMS BOARD MEMBERS

A. B. Levant, M.D.: It was recommended that no action be taken on this, pending the action of the National Blue Cross-Blue Shield Commission study.

Mr. Vice Speaker, I move the adoption of this part of our report.

The members of the Reference Committee felt that this report was not completely understandable, and that since the Blue Cross-Blue Shield Commission is already studying it, that rather than make a decision which might have to be changed later it would be better to do as we suggest here—that pending the action of the National Blue Cross-Blue Shield Commission study, no action be taken on this matter at this time.

C. W. Oakes, M.D.: I second it.

[*The motion was put to a vote and was carried unanimously.*]

A. B. Levant, M.D.: Mr. Vice Speaker, I move the adoption of the entire Reference Committee report.

The Vice Speaker: We will proceed with the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—3. ON RESOLUTIONS

XVIII—3(a). KALAMAZOO STATE HOSPITAL CENTENNIAL

J. M. Wellman, M.D.: This Reference Committee considered resolution No. 1, submitted by Dr. May of Kalamazoo County relative to the observation of the Centennial of the Kalamazoo State Hospital.

The Reference Committee unanimously approves this resolution, with the addition that The Council of the Michigan State Medical Society be asked to implement it.

Mr. Vice Speaker, I move the adoption of this resolution.

L. A. Drolett, M.D., Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—3(b). MMS BOARD OF DIRECTORS; PUBLISH NOMINATIONS FOR

J. M. Wellman, M.D.: Resolution No. 7, submitted by Dr. Wunsch of Wayne County, relative to nominees to the Michigan Medical Service Board of Directors, was considered. The "Resolved" portions of this resolution state:

"RESOLVED: That the Board of Directors of the Michigan Medical Service be requested to furnish the delegates of the Michigan State Medical Society the names of the nominees to the Michigan Medical Service Board of Directors known at that time, together with a biographical sketch of each nominee, two weeks prior to the opening of the annual session of the House of Delegates," and

"RESOLVED: That the furnishing of this advance information shall not change the right of the delegates to present subsequent nominations by petition."

Your Reference Committee recommends unanimously that this resolution be approved as submitted, and I so move.

A. B. Levant, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—3(c). MMS BOARD OF DIRECTORS; MAXIMUM TERM OF MEMBERS

J. M. Wellman, M.D.: Resolution No. 15, submitted by Dr. McIntyre of Wayne County, relative to the term of Michigan Medical Service Directors, was considered. The "Resolved" portion of this resolution states:

"RESOLVED: That the Board of Directors of Michigan Medical Service be requested to amend its Bylaws so that any member of the Board of Directors who shall have served two consecutive terms of three years each, making a total of six years, be ineligible for re-election for a period of one year immediately following the two consecutive terms."

In considering this resolution, your Reference Committee wishes to quote from the Preliminary Report of the Special Committee of Blue Shield Medical Care Plans to study certain current problems of the Michigan Medical Service, which was presented to the House of Delegates on September 28, 1959, by Donald Stubbs, M.D.:

"There is reason to believe at this time that the terms of Board members should be limited to specified periods of service to provide for a reasonable turnover in Board membership, and thereby broaden the opportunity for participation by more physicians."

Your Reference Committee recommends unanimously that this resolution be approved.

Mr. Vice Speaker, I so move.

M. S. Dennis, M.D. [Wayne]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—3(d). HOUSE OF DELEGATES COMMITTEE TO STUDY MALPRACTICE

J. M. Wellman, M.D.: Resolution No. 27 was concerned with the problem of malpractice. It was brought to the attention of the Reference Committee that there is now active a committee of The Council which was appointed to review the problem of professional liability insurance. Remarks relative to the activities of this committee, on pages 65 and 66 of the Handbook for Delegates, 1959, were noted.

Discussion was presented that there are many facets relative to the problem of malpractice which extend beyond the scope of professional liability insurance. It was also strongly suggested that the committee designated in this resolution have the opportunity to secure opinions from attorneys relative to the legal aspects of the malpractice problem.

The "Resolved" portion of the original resolution states:

"RESOLVED: That a committee of the House of Delegates be appointed by the Speaker in consultation with the President to study the entire problem of malpractice."

Your Reference Committee recommends that the words, "in consultation with the President," be deleted, and that the following be added:

". . . report its actions and recommendations at the next annual meeting of the House of Delegates."

The amended resolution therefore would read:

"RESOLVED: That a committee of the House of Delegates be appointed by the Speaker to study the entire problem of malpractice, and report its action and recommendations at the next annual meeting of the House of Delegates."

Your Reference Committee recommends unanimously the adoption of this amended resolution.

Mr. Vice Speaker, I so move.

R. E. Wunsch, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—3(e). COMMENDATION TO MEDICAL CARE INSURANCE COMMITTEE

J. M. Wellman, M.D.: Your Reference Committee next considered Resolution No. 41. Your Reference Committee recommends unanimously that this resolution be approved.

Mr. Vice Speaker, I so move.

J. J. Coury, M.D. [St. Clair]: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

J. M. Wellman, M.D.: Mr. Vice Speaker, I move the adoption of the report of the Reference Committee on Resolutions as a whole.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—4. ON SPECIAL MEMBERSHIPS

Louis Jaffe, M.D.: The Reference Committee on Special Memberships recommends the following:

For Life Membership

Branch County.—Walter J. Bien, M.D.

Calhoun County.—William R. Chynoweth, M.D., James R. Jeffrey, M.D.

Genesee County.—John J. Kurtz, M.D., Robert D. Scott, M.D., Nell M. Ward, M.D.

Houghton-Baraga-Keweenaw Counties. — John J. Burke. M.D., Raymond E. Hillmer, M.D., Alfred LaBine, M.D.

Ingham County.—Oscar H. Bruegel, M.D., Alfred J. Drolett, M.D.

Jackson County.—Randall M. Cooley, M.D., Starr L. Kline, M.D., Miar J. McLaughlin, M.D.

Kalamazoo County.—William C. Huyser, M.D., William G. Hoebeke, M.D., R. A. Morter, M.D.

Kent County.—Walter W. Oliver, M.D.

Lapeer County.—Daniel J. O'Brien, M.D.

Muskegon County.—Charles B. Fleishmann, M.D.

Northern Michigan—Frederick C. Mayne, M.D.

Oakland County.—Frank B. Gerls, M.D., Campbell Harvey, M.D.

Wayne County.—Charles W. Balser, M.D., Clarence A. Berge, M.D., Perry S. Black, M.D., Julius Y. Burnstine, M.D., Laurence A. Chrouch, M.D., Harold E. Clark, M.D., John F. Demaray, M.D., Harry H. Goldberg, M.D., Howard Havers, M.D., Ellis R. Green, M.D., Charles Lemmon, M.D., Harold L. Morris, M.D., Clarence V. Smith, M.D., Benjamin R. Springborn, M.D., Peter L. Warner, M.D., Henry Carstens, M.D.

Mr. Vice Speaker, I move the adoption of this portion of the report.

J. D. Miller, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

For Retired Membership

Calhoun County.—Kenneth B. Keeler, M.D.

Houghton-Baraga-Keweenaw Counties.—Charles R. Smith, M.D.

Ingham County.—Octavious M. Randall, M.D., Abraham A. Steiner, M.D.

Kent County.—Laurence W. Hayes, M.D., Leland M. McKinley, M.D., Carl A. Sustrong, M.D.

Livingston County.—Jesse J. Hendren, M.D.

Muskegon County.—Carl A. Wilke, M.D.

Oakland County.—Lionel N. Merrill, M.D.

Wayne County.—William E. Jahsman, M.D., Harley L. Krieger, M.D., Bruce C. Lockwood, M.D., Gordon B. Myers, M.D.

I move the adoption of this portion of the report.

J. A. Ferguson, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

For Associate Membership

Kalamazoo County.—Howard C. Lavender, M.D.

Oakland County.—Kenneth E. Corrigan, Ph.D., H. S. Hayden, Ph.D.

Washtenaw County.—Francis J. Allaire, M.D., James B. Beatty, M.D., John R. Beljan, M.D., Ralph L. Brandt, M.D., Jack L. Court, M.D., Charles A. Cunningham, M.D., Richard S. Dillman, M.D., Richard H. Earle, M.D., Charles H. Eid, M.D., William R. Feltner, M.D., Richard C. Field, M.D., James B. Fish, M.D., Paul W. Gikas, M.D., William C. Grabb, M.D., Gordon J. Grout, M.D., Ng Harry Hing, M.D., F. Deborah Johnson, M.D., Robert F. Johnston, M.D., Robert H. Joseph, M.D., W. W. Kimbrough, M.D., Frederick J. Kingery, M.D., Charles F. Krausse, M.D., Edwin H. Kroon, M.D., Richard A. Kutcipal, M.D., Theodore R. Lamott III, M.D., Edwin H. Lewis, M.D., Jose J. Llinas, M.D., Marvin J. Lubeck, M.D., W. Frank Matthews, M.D., Jack D. McCarthy, M.D., John M. McGehee, M.D., Leo J. Miedler, M.D., Earl M. Mumford, M.D., Thomas C. Murphy, M.D., Harold A. Oberman, M.D., John O'Sullivan, M.D., Roy Patterson, M.D., Frank N. Ritter, M.D., George W. Schemm, M.D., Bernard S. Silverstein, M.D., Iver F. Small, M.D., Purcell Smith, Jr., M.D., David B. Stevens, M.D., Clarence H. Tannel, M.D., John B. Wear, Jr., M.D., Jack C. Westman, M.D., Eugene I. Winkelman, M.D., Lawrence H. Wilk, M.D.

Wayne County.—John G. Bayles, M.D., Sidney Berman, M.D., H. L. Buller, M.D., H. Neill Calkins, M.D., Jacob L. Chason, M.D., Emerson O. Evison, M.D., Lionel Finkelstein, M.D., Barbara A. Hardt, M.D., Lewis G. Harmon, M.D., Lawrence J. Jamison, M.D., W. H. M. Johnson, M.D., George M. LeGallee, M.D., Philip L. Lathrop, M.D., Elizabeth Levy, M.D., Richard L. Novack, M.D., Robert L. Schaefer, M.D., Thomas O. Sage, M.D., Burton L. Schmier, M.D., Elwood A. Sharp, M.D., John E. Webster, M.D.

Mr. Vice Speaker, I move the adoption of this portion of the report.

[*The motion was severally seconded, put to a vote and carried unanimously.*]

XVIII—5. ON RULES AND ORDER OF BUSINESS

XVIII—5(a) (b) (c). TRANSMITTING COUNCIL MINUTES TO DELEGATES AND COUNTY MEDICAL SOCIETY SECRETARIES

B. P. Brown, M.D.: The Reference Committee on Rules and Order of Business considered the three following resolutions, Nos. 24, 28 and 35. These all concerned the dissemination of all actions of The Council and its Executive Committee.

They all requested more effective distribution of the minutes of The Council and its Executive Committee.

Our Reference Committee agrees in principle with all three of these resolutions, but finds it more feasible to offer a substitute resolution which we feel will embody the good points of each.

The substitute resolution submitted by the Reference Committee is as follows:

"Whereas, there appears to be an increasing interest on the part of the delegates and the component medical societies regarding the official proceedings of The Council and its Executive Committee, and

"Whereas, more effective dissemination of the minutes of these meetings to the component societies and interested delegates is desirable; therefore, be it

"RESOLVED: That the Secretary of MSMS be directed to forward copies of the complete minutes of all meetings of The Council and its Executive Committee to the secretary of each component medical society within fifteen days after approval; and be it further

"RESOLVED: That these minutes shall be made similarly available upon written request to any interested delegate during his term of office; and be it further

"RESOLVED: That all recipients treat these minutes as classified material."

I move the adoption of this substitute resolution.

J. D. Miller, M.D.: Second the motion.

The Vice Speaker: This Reference Committee had to do with resolutions Nos. 24, 28 and 35. The Reference Committee has asked for approval of the substitute resolution, which includes most of the ideas contained in those three resolutions.

The Reference Committee moves approval of the substitute resolutions that you have just heard read. Is there any discussion?

J. B. Blodgett, M.D.: A point of information. What does the Reference Committee mean by "classified information"? Does it mean, for instance, that the secretary of the county society could not divulge this information to the members in an open meeting?

B. P. Brown, M.D.: During the discussion we felt there might be material in some of the minutes that perhaps should not be disseminated widely among the members, and that each individual, particularly the secretary of each county society, should use a little discretion, and that the minutes should be kept in a safe place.

C. I. Owen, M.D. [Wayne]: Will you please re-read the part that applies to "classified information"?

B. P. Brown, M.D.: Do you want the whole resolution re-read, Doctor?

C. I. Owen, M.D.: No; just the part—yes. They are calling for the entire resolution.

[*Dr. Brown re-read the substitute resolution.*]

C. I. Owen, M.D.: Would the recipients treat it as classified information? Would it be made available to the delegates through their county society secretaries?

B. P. Brown, M.D.: It would be available to the delegates through their county society secretary or upon their own written request to the office in Lansing.

C. I. Owen, M.D.: And the delegate must keep it as classified information?

B. P. Brown, M.D.: That's right.

C. I. Owen, M.D.: I would like to move the approval of that substitute resolution.

The Vice Speaker: It is already moved and seconded that it be approved.

J. G. Slevin, M.D. [Wayne]: I would like to know what you mean by "classified." In the Army we had to handle a lot of things that were classified.

B. P. Brown, M.D.: As I stated before, it was brought out that there might be certain items dealing with the minutes of The Council or its Executive Committee which possibly would be better not to be disseminated too widely among the members of the county societies.

H. B. Zemmer, M.D. [Lapeer]: It seems to me that the legal counsel could better clarify this "classified information" status. Perhaps we might ask our legal counsel if there is an angle from a legal standpoint. Why does it need to be considered as "classified"? I suggest Mr. Dodd clarify this.

The Vice Speaker: Is Mr. Dodd here? Will someone ask him to come in, please?

M. C. Kozonis, M.D. [Oakland]: I would like to direct a question to the Chairman of the Reference Committee.

What was the intent of your Committee in reference to committee reports that are sometimes necessary in order to understand the contents of the minutes of the Executive Committee and The Council? As you well know, the Executive Committee and The Council approve committee reports, which can be the total substance of the subject at hand for which nothing but approval through a motion to approve the report is sent out. What is your interest in the report other than that?

B. P. Brown, M.D.: There was considerable discussion on that point, and it was felt that on any of those points that need clarification your District Councilor is the man to see, and you should go over the report with him. He should have complete information on it.

The Vice Speaker: Further discussion? The motion is to approve the substitute resolution.

J. A. Ferguson, M.D. [Kent]: I don't think this is clear yet. I would like to ask the Chairman of the Reference Committee to give us a "for instance" on information which should not be disseminated to the delegates or to the membership of the county societies. I can imagine restricted dissemination of information should be made to the public press, but it is hard to imagine why we should not disseminate this information in our county societies. Could you give us an example?

B. P. Brown, M.D.: Probably the one thing that was uppermost in our minds on this matter was the fact that there occasionally may be material in there concerning malpractice, and a matter of ethics in one county, that should not be of particular interest or possibly should not be broadcast over the entire State.

J. A. Ferguson, M.D.: I still don't follow the Reference Committee's thinking on that point. If matters of malpractice occur in one county and considerations are applicable to all of us, I think we should have the benefit of that knowledge and experience. I fail to see why this should be restricted in any way to the House of Delegates in particular and to our medical societies in general.

The Vice Speaker: I am told Mr. Dodd will be here in a moment. It is possible he can clarify the situation.

J. D. Miller, M.D.: May I clarify this for my own brother delegate. We can't always get together on things at the same time.

There are somethings that come up which should not be disseminated when they are being discussed and when nothing has been proved and when only an accusation has been made, for instance. It might be damaging to some people because it is so easy to make accusations. It is something else to have actual proof that a wrong has been done.

It was thought that that might be damaging to some people, to have rumors circulated. Does that clarify it?

W. J. Yott, M.D.: May I ask the Reference Committee to include in their recommendation that particular qualification? Amend that particular part of the substitute resolution that refers to malpractice.

J. A. Ferguson, M.D.: Does this in effect inject a person into the system who by his own volition can screen information which we, the delegates, should have? Or, do you imply that the information should stop with the delegates? Is that your meaning?

B. P. Brown, M.D.: No.

J. A. Ferguson, M.D.: What person has the right to screen this information before passing it on to all of us who are so vitally interested? Is it the secretary of the county society?

B. P. Brown, M.D.: Yes.

J. A. Ferguson, M.D.: I think that is basically wrong. I don't think any one individual should have the prerogative of screening the information sent to us by The Council.

E. G. Krieg, M.D.: I think there is quite a bit of misunderstanding here by our brother from Kent. In the first place, there is no committee's function that is not open to all of us. That includes even the other groups that aren't members of this House.

This particular resolution was meant to do only one thing. The three resolutions presented here complained that those county societies did not get information from The Council and Executive Committee soon enough so that they could know what was going on. The only thing this substitute resolution would do would be to implement that so that each county society would receive as soon as possible information on what goes on and so you and I can go to our own county society to find out what is going on. The other part of the resolution was meant to apply to those who are out in the province, so to speak, who aren't able to get to meetings. Those members would get the information directly. There is no hokus-pokus about it at all.

The Vice Speaker: Thank you, Dr. Krieg. I am sorry that copies of the substitute resolution by the Reference Committee are not available for all of us at this time. I have been told that they will be available tomorrow, but that doesn't help us tonight.

I am going to read this substitute resolution once more, just to make sure. This is the "Resolved" part of the substitute resolution:

"RESOLVED: That the Secretary of MSMS be directed to forward copies of the complete minutes of all meetings of The Council and its Executive Committee to the secretary of each component medical society within fifteen days after approval; and be it further

"RESOLVED: That these minutes shall be made

similarly available upon written request to any interested delegate during his term of office; and be it further

"RESOLVED: That all recipients treat these minutes as classified material."

D. W. McLean, M.D.: I would like to ask the Chairman of the Reference Committee if approval of the minutes is mandatory, and when they are approved.

B. P. Brown, M.D.: That was put in, Dr. McLean, for the reason that we were informed that the minutes of these meetings are approved at the next meeting of either The Council or the Executive Committee. There are occasionally directions which should not go in the first one, and therefore we did it in this manner.

D. W. McLean, M.D.: But approval is mandatory?

B. P. Brown, M.D.: Yes. I suppose it is mandatory as in any meeting when the secretary's minutes are approved.

D. W. McLean, M.D.: I just wanted to be sure that approval was mandatory.

G. S. Fisher, M.D.: It seems to me that this resolution constitutes each county medical society secretary and possibly each delegate as a screener of this information. I am inclined not to agree with Dr. Miller, and I think that perhaps this is not exactly the way this should be done, or at least this is not the intent of the previous resolutions that were presented to the Reference Committee.

The Vice Speaker: The delegate who asked for a legal opinion will please identify himself and ask his question again.

H. B. Zemmer, M.D.: It was my understanding that there were certain legal possibilities or difficulties that we might get into by disseminating all of these minutes, and that is why the word "classified" was inserted, so that the secretary or the delegate or whoever had the minutes would not broadcast them.

There is a possibility of some danger in some of those things being broadcast. Many things come to The Council and occur in the minutes that are not completely decided at that particular time. It may not be well for them to be broadcast until certain definite action has been taken. Still, it might be inferred by someone who read the minutes that definite action had been taken.

I think our legal counsel could clarify some of the questions we are asking concerning classified information.

The Vice Speaker: For the benefit of the delegate and with the permission of the House, is it all right if we ask Mr. Dodd to give us any information he might have on this particular point of classified material? All right.

J. D. Miller, M.D.: May I ask a question first? I would like to make a statement instead of ask a question.

The intent of this was to speed the dissemination of information. This was not in criticism or to disseminate information that should not be disseminated. This resolution was presented with the intent of speeding communication between top level and the county societies.

Perhaps our legal cousel might clarify this by allowing some of us to make an amendment that would substitute the word "confidential" for "classified," because I think everyone understands the implications in "confidential" information.

The Vice Speaker: Mr. Dodd, you have the floor.

Mr. Lester P. Dodd: I am sorry, Mr. Vice Speaker, that I was not in the room when the question first came up.

If the question pertains to any particular significance in relation to the word "classified," I would say it probably has none. I assume the intention in the Reference Committee to add the word "classified" was to stress the point that such information should be regarded as highly confidential.

When this resolution or a request having the substance of this resolution first came before The Council, I suggested to The Council—and let me say I think there is no earth-shaking legal question involved in this whole situation—but when the minutes of The Council or Executive Committee are first taken they are in rough form. They then go to the members of The Council and to the Executive Committee and to all others interested; corrections are made and they do not become official until the following meeting.

In the meantime, however, the substance of the action taken by The Council or the Executive Committee, as the case may be, can very properly be digested and the substance of it communicated much more rapidly, in my judgment, than could be done should you wait for corrected minutes and subsequently send them out one or two months later.

My only concern and the only concern we have had from the legal standpoint in respect to the dissemination of minutes is that if minutes are to be circulated in their original form at an early date, and rather widespread, it has been my experience that there has been a tendency thereby to edit minutes, to make them less meaningful than would be the case otherwise.

I think there is no objection to the dissemination of the result of the action of the Executive Committee or of The Council. I think it can be more practically done by an abstract of those minutes following very promptly the meetings of those bodies, and without having the fear that if you disseminate them in the meantime you are going to create false impressions and not the actual result of the approved minutes of that body.

I will be glad to answer any questions if there are any.

J. D. Miller, M.D.: Mr. Dodd, would you rather have "confidential" than "classified" in that resolution?

Mr. Dodd: I think it would make no substantial difference whether you use the word "confidential" or "classified," because I think the word "classified" has no particular significance in this situation. I assume what you mean is "confidential."

E. M. Vardon, M.D.: This was discussed at great length in the Reference Committee, and I think we took up all sides of it. I feel that everybody on the Reference Committee understood that this material is highly confidential. The big thing that it concerns is the transmission of the doings of The Council and the Executive Committee.

We all know that lack of information or slowness of transmission of information ofttimes leads to misunderstandings, and it is to avoid this that all of these various resolutions were sent to the Reference Committee.

I think all three resolutions had the same intent, but they were worded a little differently. Some wanted the county societies to have the information; some wanted the individual delegates to have it. The Reference Committee felt they both were right. We felt that in a democratic organization such as our Society, by all means this information should be available to all component county medical societies. It seems to me there is no better place for it than with the secretary of each individual county society.

Also, that makes information available at the local level if anybody desires to go over to the county society office and see the minutes. However, some delegates are very interested in certain matters. We feel that they too, upon writing to the State office during their term as delegate, should have these things made available to them.

The question came up about speed and mode of transmission, and again the same thing that has been discussed here was brought up in the Reference Committee. Naturally you like to have information as soon as possible. Some wanted it in three weeks, others one month. That was batted around, and it was brought out that perhaps as soon as possible after the minutes were approved would be better.

Here is one thing about sending the minutes sooner than that, or a short synopsis of them. Sometimes you don't get the right idea of the action taken. It has to be imagined that perhaps it might never happen, but you have to think of things that could happen. It might be that such a thing would be sent out in unapproved

minutes, and when someone reviewed them he would think that was the action of The Council or the Executive Committee, and would never have cause to look at the next month's minutes to find out whether it was approved or not or that it was contrary to the thought of the Committee.

That was the reason for waiting until after the minutes were approved before they would be sent out. Then we felt the minutes should be gotten to the members as soon as possible after they are approved, either fifteen days or so, and forty-five days in all.

E. J. Tallant, M.D.: I would like to move an amendment to the resolution, based on the intent of the original resolutions.

I move, Mr. Vice Speaker, that the words "made available" be deleted and the word "sent" be substituted, and that the words "upon written request" be deleted.

The Vice Speaker: Will you read it as you have amended it, please?

E. J. Tallant, M.D.: ". . . that minutes of the meetings be sent to every delegate."

[*The motion was severally seconded.*]

The Vice Speaker: We are now discussing the amendment.

E. M. Vardon, M.D.: This also was discussed in the Reference Committee meeting. The automation of the office or the procedure for making a few extra copies is nothing as far as administrative procedure is concerned nowadays. It would be considerable work to send them to all the delegates, especially when you think that there might be some who would not be interested and who might have them kicking around their office and that they might become available to people who you would never dream would come in contact with them.

I think if a delegate is really and truly interested in these things, he certainly will sit down and make a written request for them, and he is entitled to them. Otherwise—well, it was the feeling of the Reference Committee that those who request them should get them. If everybody requests them, okay.

The Vice Speaker: Do you all understand the amendment? There would be a change in the wording of the "Resolved," ". . . that these minutes shall be sent upon written request to all delegates."

E. M. Vardon, M.D.: It has been requested back here that we clarify whether each single time or for the whole term of office is meant. I believe it was the intent of the Reference Committee that it would be for the entire term of office. One request.

B. P. Brown, M.D.: That's right.

E. J. Tallant, M.D.: ". . . that copies of the minutes be sent to all delegates."

The Vice Speaker: ". . . during the term of office?"

E. J. Tallant, M.D.: ". . . . during the term of office." Delete "be made available" and delete "upon written request."

The Vice Speaker: ". . . that these minutes shall be sent to all delegates during their term of office."

E. J. Tallant, M.D.: That is correct.

The Vice Speaker: It is moved and seconded that we approve the amendment. Any further discussion? All those in favor, say "aye;" opposed, "no." The amendment is lost.

We will now vote on the motion to approve the substitute resolution which the Reference Committee has submitted to the House. Any discussion on the substitute resolution? All those in favor, say "aye;" opposed, "no." The motion is carried.

B. P. Brown, M.D.: I move the adoption of the entire report of the Reference Committee.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—6. ON CONSTITUTION AND BYLAWS

XVIII—6(a). BYLAWS (CHAP. 16, NEW SEC. 4): DEFERMENT OF DUES

S. E. Chapin, M.D.: Resolution No. 19, Deferred Dues: This resolution was disapproved by a 4 to 1 vote of the Reference Committee. The decision of the Reference Committee was to incorporate this resolution with resolution No. 9.

Mr. Speaker, I move the adoption of this part of the report.

The Vice Speaker: It is moved that resolution No. 19 be disapproved, as it is being incorporated into resolution No. 9. We will ask the Chairman of the Reference Committee to read resolution No. 9.

[*Dr. Chapin read resolution No. 9.*]

S. E. Chapin, M.D.: Mr. Vice Speaker, I move acceptance of this part of the report.

J. B. Blodgett, M.D.: Second the motion.

(The motion was put to a vote and was carried unanimously.)

S. E. Chapin, M.D.: Resolution No. 19, Deferred Dues.

[*Dr. Chapin read resolution No. 19.*]

The Vice Speaker: The Reference Committee moves disapproval of Resolution No. 19. Is there any discussion?

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—6(b). BYLAWS (CHAP. 16, SEC. 2): DUES DELINQUENCY DATE CHANGE

XVIII—6(c). BYLAWS (CHAP. 16): REDUCED DUES FOR YOUNGER MEMBERS SO PRIVILEGED BY COUNTY MEDICAL SOCIETY

S. E. Chapin, M.D.: Resolution No. 25, Reduced Dues for Younger Members.

[*Dr. Chapin read resolution No. 25.*]

S. E. Chapin, M.D.: It was the unanimous opinion of the Reference Committee that this matter be referred to the Finance Committee of The Council in order to further the establishment of uniformity of practice in this matter.

Mr. Vice Speaker, I move the adoption of this part of the report.

S. L. Loupee, M.D.: Second the motion.

The Vice Speaker: The motion is that resolution No. 25 be referred to the Finance Committee of The Council. Is there any discussion?

C. I. Owen, M.D.: Mr. Vice Speaker, the amount of money involved here is relatively small. It is a wonderful gesture to the young physician to offer him a reduction in dues for his first two years in practice. It may mean a great deal to young physicians or it may not, but it will encourage them to become members in the Society.

I would object very strongly to sending this back to another committee for further study.

R. E. Wunsch, M.D.: As a point of information, may I inquire what is implied by the Reference Committee in asking about "uniformity"?

S. E. Chapin, M.D.: It appears that many county societies have different ways of helping their young doctors, and we had several expressions of opinion about whether a county medical society should carry a man the first year or two or not, and whether some do and others don't. We thought perhaps the Finance Committee could come up with a formula that could be adopted by each and every county medical society.

R. E. Wunsch, M.D.: I would raise a question regarding the advisability of this, inasmuch as basically we are acting for the State Society. I would agree most heartily with Dr. Owen that this would be a fine gesture on the part of the State Society, but I question whether some of our county societies would feel it desirable to have a decision necessarily made at the State level as to how they should handle their younger members.

I would make one other point. I would not be surprised if the additional number of younger men who will come in under these conditions rather than waiting a period of time might balance the thing financially in the long run, anyway.

THE VICE SPEAKER: The recommendation of the Reference Committee is to refer resolution No. 25 to the Finance Committee of The Council. Further discussion?

Those in favor, say "aye;" opposed, "no." The motion is lost.

C. I. OWEN, M.D.: Mr. Vice Speaker, I move adoption of the original resolution.

[*The motion was severally seconded.*]

T. J. DILLON, M.D. [Van Buren]: I don't think most of the members here believe much in subsidies. This is pretty much a subsidy to a younger man. It also is an admission that the members of the county medical societies are darned poor salesmen, that they don't have any ability to present to the younger men the advantages of belonging to the Society; and if they try to get a man to join the Society, what do they have to offer him?

I think a young man going into business has to pay the cost of going into business, and he should not expect help from anybody else. He knows he is going to have to go into business, and he should prepare himself for it far in advance. He knows he is going to have to pay dues from year to year, and he will have to pay them some time, and he should be prepared to do so. Perhaps the medical arts and all the retail houses that sell medical equipment are better salesmen and sell the younger men a lot of goods on deferred payments. The younger man has got to produce, and they don't give him a commitment for half a dozen the first year. He is charged the full cost.

Perhaps something could be worked out whereby the man later wants to repay the State Society for his full dues. Maybe that would be all right; but the State Society has got to have money so it can operate and pay its obligations.

A. B. LEVANT, M.D.: I don't know whether this chap remembers the days when he started in the practice of medicine. It was pretty difficult to get enough for the down payment on office furniture, equipment, and so on. I remember I had Wayne County and State and AMA dues to pay. It took some of the food out of our mouths in order to pay those dues. I think we should now give a little help to the younger men.

A. S. NAROTZKY, M.D.: Lest we forget, we do have what are called hardship cases. We have discussed them on the county level. I think if these boys can't afford to pay, we can consider them individually as hardship cases.

THE VICE SPEAKER: Is there further discussion? The motion is for approval of resolution No. 25 regarding reduced dues for younger members. The question is called for.

J. G. SLEVIN, M.D.: I call for a division.

THE VICE SPEAKER: Those in favor, raise your right hand. Those opposed, raise your right hand. The motion is approved by a vote of 63 to 51.

XVIII—6(d). BYLAWS (CHAP. 6): TRANSPOSING SECTIONS 11 AND 12

S. E. CHAPIN, M.D.: Resolution No. 23, Renumbering of Sections.

The Reference Committee unanimously approved the changing in Chapter 6 of the numbering of Sections 11 and 12 to 12 and 11. These Sections are concerned with procedure in Society action as related to Conduct and Discipline of Members. This change merely simplifies the procedure and makes it more understandable. There is no change in wording.

Mr. Vice Speaker, I move adoption of this part of the report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—6(e). BYLAWS (CHAP. 6, SEC. 6): INVESTIGATION OF MISCONDUCT

S. E. CHAPIN, M.D.: This resolution was unanimously disapproved by the Reference Committee. It was our feeling that there are already enough avenues of complaint against doctors.

In reviewing Chapter 6, Section 6 of the Bylaws, it was brought to the attention of the Reference Committee that this Section is worded, "Disciplinary measures shall be initiated." Since the title of this Section is "Request for Investigation," the Reference Committee feels that the first sentence should be amended to read, "Investigative procedures shall be initiated. . . ." The previous wording sentences the offender before he has been indicted.

Mr. Speaker, I move the adoption of this part of the report. The motion is to disapprove resolution No. 2, and I so move.

THE SPEAKER: The Reference Committee recommends disapproval of resolution No. 2. Is there a second?

C. W. OAKES, M.D.: Second.

THE SPEAKER: We are now ready for discussion of the motion to disapprove. Any discussion?

[*The motion was put to a vote and was carried unanimously.*]

XVIII—6(f). BYLAWS (CHAP. 6, SEC. 7): TO DELETE "DISMISSAL" IN LAST SENTENCE

S. E. CHAPIN, M.D.: Resolution No. 32, Reporting of Dismissed Cases.

[*Dr. Chapin read resolution No. 32.*]

S. E. CHAPIN, M.D. [*continuing*]: The Reference Committee unanimously disapproved this resolution. If a man is vindicated it is just as important to announce this as it would be if he were reprimanded. Any violation of confidence in these matters is strictly a matter of local procedure.

Mr. Speaker, I move the adoption of this part of the report.

A. C. STANDER, M.D.: Second the motion.

THE SPEAKER: The motion is to disapprove resolution No. 32. Are you ready for the vote?

[*The motion was put to a vote and was carried, but not unanimously.*]

XVIII—6(g). SEVEN PROPOSED AMENDMENTS RECOMMENDED BY THE COUNCIL

S. E. CHAPIN, M.D.: Resolution No. 47, Recommended Changes in MSMS Constitution and Bylaws.

This group of seven resolutions was presented by The Council of the State Medical Society.

XVIII—6(g). (A) BYLAWS (CHAP. 11, SEC. 3): ELIMINATE CANCER CONTROL COMMITTEE

"Eliminate the Committee on Cancer Control." This was unanimously approved by the Reference Committee since it is part of the process of streamlining the committees of the Society.

Mr. Speaker, I move the adoption of part 1 of resolution No. 47.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—6(g). (B) BYLAWS (CHAP. 11, SEC. 1—(e)): CHANGE NAME OF LEGISLATIVE COMMITTEE

S. E. CHAPIN, M.D.: "Changing the name of the Committee on Legislation." The Reference Committee approved the change in name to the Legal Affairs Committee. This action is in line with similar changes made by other leading professional societies.

Mr. Speaker, I so move.

E. G. KRIEG, M.D.: Second.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—6(g). (C) BYLAWS (CHAP. 5, SEC. 3—(e)): ACTIVE MEMBERSHIP FOR ARMED FORCES, PHS AND VA OFFICERS

S. E. CHAPIN, M.D.: "3—Active membership for Armed Forces, Public Health Service, and VA Physi-

cians." This recommendation was sent to this Reference Committee by the Executive Committee of The Council after it had been adopted by the AMA House of Delegates in Minneapolis last December.

The Reference Committee disapproved this resolution because it felt that if a doctor in one of the services enumerated above qualifies for active membership, then he should seek it himself.

Mr. Speaker, I move disapproval of part 3 of resolution No. 47.

F. P. Rhoades, M.D.: Second the motion.

J. G. Slevin, M.D.: It has always been the policy of medical societies that members of the armed forces who are not permanent residents of the state can become active members of component county and state societies. That is usual procedure. This would exclude members of the armed forces from becoming members of this State Medical Society if we disapprove this section. I don't think that is right.

S. E. Chapin, M.D.: Under the Bylaws as they stand now, these people are associate members. In order to be an active member a man would have to have a Michigan license. Many of the doctors practicing under these auspices in this State do not necessarily have a Michigan license, and therefore they could not be active members.

The Speaker: Is there further discussion? The motion of the Reference Committee is to disapprove item No. 3 of resolution No. 47. Are you ready to vote?

[*The motion was put to a vote and was carried unanimously.*]

XVIII—6(g). (D) BYLAWS (CHAP. 4, SEC. 4): TO INCLUDE DEATH AS REASON FOR DUES REFUND

S. E. Chapin, M.D.: "4—Refund of Dues." By adding the words "or death" to the first sentence of the third paragraph of Chapter 4, Section 4, the Society may then refund any dues and assessments already paid for the remainder of the year, calculated to the nearest quarter, to the estate of a member who has died. Previously this referred only to those who resigned. The words we are adding are "resignation or death" as constituting a refund.

The Reference Committee approves part 4 of resolution No. 47, and I so move.

E. G. Krieg, M.D.: Second.

[*The motion was put to a vote and was carried unanimously.*]

S. E. Chapin, M.D.: Part 5 concerns the Ethics Committee and the Postgraduate Education Committee. It was the feeling of the Reference Committee that it could not further clarify the membership of this Committee without direction from the Secretary of the Society. This has been received since this report was written, and I will take this opportunity to remind the members of my Reference Committee that we will have a meeting in this room at 8:45 a.m. tomorrow morning.

XVIII—6(g). (F) BY-LAWS (CHAP. 12, SEC. 3): ELECTION OF FOUR DELEGATES TO AMA IN ALTERNATE YEARS

Part 6—"AMA Delegates." Whereas the Michigan State Medical Society is now entitled to seven delegates instead of six, it becomes necessary to provide for the election of an additional delegate.

It is resolved that Chapter 12, Section 1, which now reads in part, "Provided further that not more than three delegates to the AMA shall be elected in any one year," be amended to read: "Provided that not more than four delegates to the AMA shall be elected in the odd-numbered years, and not more than three delegates to the AMA in the even-numbered years shall be elected at the Annual Session of the House of Delegates."

Mr. Speaker, I move the adoption of this resolution framed by the Reference Committee.

[*The motion was severally seconded.*]

F. L. Troost, M.D. [Ingham]: I move an amendment to the motion, that it read "not more than four delegates be elected each year to the AMA."

C. W. Oakes, M.D. [Huron]: I second that.

[*The amendment was put to a vote and was carried unanimously.*]

S. E. Chapin, M.D.: As amended this would then read: "Provided that not more than four delegates to the AMA shall be elected in any one year."

[*The motion as amended was put to a vote and was carried unanimously.*]

XVIII—6(g). (G) BYLAWS (CHAP. 12, SEC. 3): TERMINOLOGY OF "MEETING" AND "SESSION"

S. E. Chapin, M.D.: "7—Change of wording in Chapter 12, Section 3." The Reference Committee approved the change in the word "Session" to "Meeting." This is merely a matter of correct usage.

Mr. Speaker, I move the adoption of this part of the report.

E. G. Krieg, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—6(h, i). 1. (CONSTITUTION, ART. X—SEC. 1): ELECTION OF SECRETARY BY HOUSE OF DELEGATES, 2. (CONSTITUTION, ART. X—SEC. 1): ELECTION OF TREASURER BY HOUSE OF DELEGATES

S. E. Chapin, M.D.: Resolutions Nos. 44 and 45 were considered jointly. Resolution No. 44 concerns the election of the Secretary, and resolution No. 45 concerns the election of the Treasurer.

The Reference Committee disapproved both of these resolutions. The Reference Committee proposes that the Constitution be amended to the effect that the Secretary and Treasurer be elected by The Council, as at present, but that they have no vote in The Council or Executive Committee.

This is a proposed change in the Constitution, not in the Bylaws, and it would take a year to do it.

Mr. Speaker, I move the adoption of this part of the report.

The Speaker: Is there a second? The resolutions are in the form of constitutional amendments, and on that basis they will be deferred for one year from this meeting. That is the ruling of the Chair.

XVIII—6(j). BYLAWS (CHAP. 9, SEC. 1 AND CHAP. 10, SEC. 2): COUNCILORS TO BE MEMBERS OF THE HOUSE OF DELEGATES

S. E. Chapin, M.D.:

[*Dr. Chapin read resolution No. 13.*]

S. E. Chapin, M.D. [continuing]: It was the unanimous opinion of the Reference Committee that this matter be referred to a special committee of the House of Delegates charged with studying the complete organizational structure of the Michigan State Medical Society.

Further, that this committee be charged to investigate and report on the following aspects of reorganization:

A. Redesignation of Councilor Districts on a geographical basis, irrespective of population, much like senators represent states in the Federal Government.

B. The possibility of selection of Councilors by popular vote in their Districts.

C. That Councilors retain the status of Delegates in the House of Delegates.

D. That consideration be given to the length and number of terms of Councilors, and so on and so forth.

Mr. Speaker: I move the adoption of this part of the report.

M. S. Dennis, M.D., Support.

The Speaker: The motion is to refer the whole matter to a study committee. Is there discussion?

F. L. Troost, M.D.: Aren't we required to disapprove this resolution before we vote on the other?

THE SPEAKER: I don't believe so, Dr. Troost. If Dr. Chapin wishes to recommend that it be referred to a study committee, I believe he may so recommend. It should be in the form of an amendment, as to when this committee should report.

S. E. CHAPIN, M.D.: I shall amend it to read, ". . . and report at the next annual session of the House of Delegates."

[*The amendment was severally seconded, was put to a vote, and was carried unanimously.*]

THE SPEAKER: Is there discussion on the original motion as now amended, which is to refer it to a study committee to report at the next annual session of the House of Delegates?

O. K. ENGELKE, M.D.: **I would like to move an amendment to the motion, that the special study committee transmit to the Secretary of the Society a full copy of its report in time for the Secretary in turn to transmit the full report of the study committee to each delegate two weeks before the next annual session.**

[*The amendment was severally seconded, was put to a vote, and was carried unanimously.*]

[*The main motion as amended was put to a vote and was carried unanimously.*]

XVIII—6(k and l). 1. BYLAWS (CHAP. 10, SEC. 7): EDITOR TO BE ELECTED BY HOUSE OF DELEGATES. 2 AMENDMENT TO BYLAWS SO EDITOR IS ELECTED BY HOUSE OF DELEGATES

S. E. CHAPIN, M.D.:

The Reference Committee disapproved these two resolutions jointly and offers the following substitute resolution:

"Whereas, the Reference Committee unanimously agrees that changes are needed in many areas concerning State Medical Society publications; therefore, be it

"RESOLVED: That the Speaker of the House of Delegates appoint a committee made up of four members of the House of Delegates and three Councilors, to thoroughly investigate the status of State Medical Society publications; and be it further

"RESOLVED: That this committee make a full report to the House of Delegates at its next annual session; and be it further

"RESOLVED: That this committee be required to publish interim reports of its actions in the State Medical Journal every three months."

Mr. Speaker, I move the adoption of this substitute resolution.

[*The motion was severally seconded.*]

S. E. CHAPIN, M.D.: We had the advice of a number of people while we were discussing these matters, and it does not appear that you can resolve a matter of this importance by merely passing a resolution. It was pointed out in the discussion that there are many more things wrong with the publications of the State Medical Society besides the personality or policies or feelings of the Editor.

We thought there were also some things concerning topography, the manner in which things are printed, and the actions and meetings of the Publications Committee, and so on, that should be studied, and when all of these items were brought together we felt this was a matter much bigger than just the simple six-line resolution, and was something that should be studied by a special committee.

If you will notice, we went to great length to see to it that you would know that this committee would be on the ball all the time.

THE SPEAKER: I would like to say that you can easily see that with a difference of opinion you could pass a motion now, and maybe two days from now you might want to change it. Next year you might want to change it again, and so on. That is the reason why many times a study committee is the only proper solution.

I realize that sometimes it postpones action, but sometimes we actually save time in the long run. If we had this coming up at every session of the House we wouldn't be doing anything else.

E. J. TALLANT, M.D.: This resolution was presented as a change in the Bylaws. I would like to speak to this matter.

Again the same principle was discussed previously. Wherein is the responsibility of the State officials? Is it to this body, which is the elected body of all the membership, or is it to The Council or the Executive Committee of The Council? This is a principle involved in many of the resolutions that have been brought in tonight. Wherein is the authority and responsibility? This is an attempt to place the responsibility of the Editor directly in the House of Delegates.

THE SPEAKER: The motion is to refer both of these items to a study committee. Those in favor, raise your right hand. Those opposed, raise your right hand.

The vote is 59 for and 41 against. The motion is carried.

S. E. CHAPIN, M.D.: Mr. Speaker, I move the adoption of the parts of this report that were approved.

C. W. OAKES, M.D.: I will support that.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—7. REPORT OF THE REFERENCE COMMITTEE ON LEGISLATION AND PUBLIC RELATIONS

XVIII—7(a). HOSPITAL COMMITTEE REPORTS: PREVENT SUBPOENA

J. D. FRYFOGLE, M.D. [Wayne]:

Legal Protection of Hospital Medical Staff Committee Reports.

[*Dr. Fryfogle read resolution No. 6*]

J. D. FRYFOGLE, M.D. [*continuing*]: The Reference Committee approves this resolution in principle and recommends its referral to the Legal Affairs Committee for implementation.

I so move.

W. C. BEETS, M.D.: Second.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—7(b). ADOPTIONS

[*Dr. Fryfogle read the "Resolved" portion of resolution No. 18.*]

J. D. FRYFOGLE, M.D. [*continuing*]: The Reference Committee thanks Dr. Stander for his excellent resolution and feels that the State Society should express itself on this important problem.

Mr. Speaker, I move the adoption of this part of the report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—7(c). PORTION OF DUES REBATED TO COUNTY MEDICAL SOCIETY FOR LOCAL PUBLIC RELATIONS PROGRAM

[*Dr. Fryfogle read the "Resolved" portion of resolution No. 22.*]

J. D. FRYFOGLE, M.D. [*continuing*]: The Reference Committee feels that the public relations program of the Michigan State Medical Society is doing an excellent job with the monies made available to it, and that to reduce this amount by refund per member or by allocation to specific county societies would render this program ineffectual. We therefore disapprove resolution No. 22.

Mr. Speaker, I move the adoption of this part of the report.

R. W. TEED, M.D. [Washtenaw]: Support.

THE SPEAKER: May we have a show of hands of those who approve the recommendation of the Reference Committee. (63) Those opposed, raise your right hand. (14) The vote is 63 to 14. The motion is carried.

XVIII—7(d). GERIATRICS CHAIRS IN MEDICAL SCHOOLS

[*Doctor Fryfogle read the "Resolved" portion of Resolution No. 26.*]

J. D. Fryfogle, M.D. [*continuing*]: The Reference Committee desires to delete the words of the last "Resolved" following the words "medical schools." The amended second "Resolved" then would read:

"RESOLVED: That the Michigan State Medical Society advocates specialized teaching of this subject in our medical schools."

Mr. Speaker, I move the adoption of this resolution as amended by the Reference Committee.

[*The motion was severally seconded, put to a vote and carried unanimously.*]

XVIII—7(e). COUNTY MEDICAL SOCIETY MEDICAL STUDENT RECRUITMENT

[*Dr. Fryfogle read the "Resolved" portion of the resolution.*]

J. D. Fryfogle, M.D. [*continuing*]: The Reference Committee approves this resolution as written, and wishes to add a supplemental "Resolved" to read as follows:

"RESOLVED: That the Public Relations Committee of MSMS put increased emphasis on the selling of medicine as a vocation." (See amendment, page 51.)

The Reference Committee approves this resolution as so amended, and I so move.

[*The motion was severally seconded.*]

O. K. Engelke, M.D.: The schedule of these conferences referred to is on the blue sheet that was just placed on the chairs of each of the delegates. We hope you will all look at it.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—7(f). OTHER PROFESSIONS: REDUCED FEES TO SENIOR CITIZENS

[*Dr. Fryfogle read resolution No. 39.*]

J. D. Fryfogle, M.D. [*continuing*]: The Reference Committee wishes to amend this report as follows:

Delete the third and fourth "Whereases" and alter the "Resolved" so that it will read:

"RESOLVED: That the House of Delegates of the Michigan State Medical Society respectfully request the Board of Directors of the Michigan Association of the Professions to discuss with the members of the Michigan Association of the Professions the possibility of such like action being considered by the other professions." (See amendment below.)

Mr. Speaker, I move the adoption of this resolution as amended.

[*The motion was severally seconded.*]

The Speaker: The motion is open for discussion.

W. A. Hasty, M.D. [Oceana]: In this resolution there is no provision for financial status of the recipients of the beneficent activity.

J. D. Fryfogle, M.D.: Yes, sir. The Reference Committee considered whether we would designate whether these were low income. We figured that the Blue Shield in our particular organization had designated them as "Plan A," but we thought it rather unwise if we talked to lawyers or to some other people and told them, "Please get out a plan that will designate these folks." I am sure they know what we are talking about.

W. B. McIntyre, M.D.: I would like to suggest as an amendment to this motion that the Michigan Hospital Council also be included. I realize that the profession is giving a service, and I realize also that the members of the Michigan Hospital Council are giving a service. While there are very definite implications in this resolution that it is unnecessary to spell out, I think it certainly is time that the onus of the high cost of medical care be taken off the shoulders of the doctor, particularly with the soaring costs of hospital care. We are being saddled with the blame for that. I certainly feel that this is one method of directing attention to that.

[*The amendment was seconded, put to a vote and was carried unanimously.*]

J. B. Blodgett, M.D.: I suggest we have a division of the question. The reason is that I think the "Whereas" that reads, **"Whereas, this in effect represents a subsidy to be provided by members of a single profession"** is a very good one, and it is too bad to take it out. I move as an amendment that we keep it in.

[*The amendment was severally seconded.*]

The Speaker: It is moved and supported that the third "Whereas" be left in. Is there discussion? Those in favor, say "aye"; opposed, "no." It is carried.

Are you ready to vote on the main motion as amended? All those in favor, say "aye"; opposed, "no." The motion is carried.

J. D. Fryfogle, M.D.: I would now like to move that our report be adopted as a whole, as amended.

[*The motion was severally seconded.*]

J. A. Ferguson, M.D.: I would like to move for reconsideration of resolution No. 37. I have one small objection to the wording. We know what the "selling" of medicine means.

The Speaker: The motion is to approve the report as a whole, as amended. I think if you are going to want to reconsider, we will have to decide that matter first. Is there a second to the motion to reconsider?

J. D. Miller, M.D.: Second.

The Speaker: All those in favor of reconsidering resolution No. 37, say "aye"; opposed, "no." The motion is lost.

Are you now ready to vote on approval of the entire report as amended? All those in favor, say "aye"; opposed, "no." The motion is carried.

XVIII—8. REFERENCE COMMITTEE ON HYGIENE AND PUBLIC HEALTH

XVIII—8(a). PRENATAL HEALTH PROGRAM OF MICHIGAN DEPARTMENT OF HEALTH

[*Dr. Engelke read the "Resolved" portion of resolution No. 31.*]

O. K. Engelke, M.D.: After a review of the resolution and its history by Dr. Cosens, as well as pertinent material presented by Dr. Engelke and a general discussion by those present, the Reference Committee went into executive session and reached the following conclusion:

The Reference Committee unanimously recommends that this resolution be referred to the Michigan State Medical Society Maternal Health Committee for study, with the further request that other publications in this category intended for public distribution be reviewed by that Committee, and a report be made to the House of Delegates at the next Annual Session.

This was the unanimous action of the Reference Committee, Mr. Speaker, and I move its adoption.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

O. K. Engelke, M.D.: Mr. Speaker, this being the only resolution we considered, I move the adoption of the report of the Reference Committee as a whole.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: We shall adjourn until tomorrow morning.

(The meeting adjourned at 11:45 p.m.)

TUESDAY MORNING SESSION

September 29, 1959

The meeting reconvened at 9:15 a.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

The Speaker: I have a telegram I would like to read:

"Have just learned of designation of Dr. Archer A. Claytor as Foremost Family Physician of the Year. Please convey to Dr. Claytor my sincere best wishes

and to your membership my congratulations for recognizing his distinguished service to medicine and to humanity and his enbodiment of all we venerate in our family physicians."

s/ Charles E. Chamberlain
Member of Congress

(Applause)

XVIII—7(e). COUNTY MEDICAL SOCIETY MEDICAL STUDENT RECRUITMENT

You will recall that last evening Dr. Ferguson asked for reconsideration of a resolution. Due to the parliamentary situation we were in at the moment, we were rather upset about knowing what to do.

I think Dr. Ferguson has an excellent point, and I would like to have him present it to the group; we can then see whether you would like to go back and take up the matter in official parliamentary manner, or whether you would be willing to change one word in the resolution. Dr. Ferguson.

J. A. Ferguson, M.D.: Mr. Speaker, I very much appreciate this opportunity. This is a small, noncontroversial point.

Referring back to resolution No. 37, in the "Resolved" it states "that each individual member of this House of Delegates consider himself as a committee of one to sell medicine as a vocation to leading high school and college students."

I thought if that were taken out of context by a shrewd press representative it might represent us as selling marijuana or Ojibwa to high school students.

I would simply suggest that we change it to read:

"RESOLVED. That each individual member of this House of Delegates consider himself as a committee of one on stimulating interest in medicine as a vocation."

The Speaker: The question is this: Do you wish to go back and go through the whole procedure of having this resolution reconsidered, and so on, or are you willing to accept a motion that the word "sell" be changed to "stimulate interest in"? Make the motion and we will see how far we get with it.

J. A. Ferguson, M.D.: I so move .

W. C. Beets, M.D.: Support.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—(9). REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

XVIII—9(a). CREATION OF HOUSE OF DELEGATES SPECIAL COMMITTEE ON CONSTITUTION AND BYLAWS

J. W. Rice, M.D.: Resolution No. 11 concerned a Standing Committee on Constitution and Bylaws. After all the controversy we had last night on the Constitution and Bylaws, it seemed to me we might have some consideration of this matter this morning.

The Reference Committee, after discussing the resolution that was offered, proposes a substitute resolution. I will read the original resolution No. 11 and then I will read the substitute resolution and we can vote on it.

[*Dr. Rice read resolution No. 11.*]

J. W. Rice, M.D. [*continuing*]: The Reference Committee offers a substitute resolution because we were afraid if it were put in a standing committee, the standing committee would probably just stand and not act.

Secondly, most changes are made by the House of Delegates at this time, and we thought a committee appointed each year by the House of Delegates might keep things up-to-date.

We recognize the fact that there may be some changes that may be considered, and so we offer the following substitute resolution:

"RESOLVED: That a special committee of the House of Delegates be appointed by the Speaker to review the Constitution and Bylaws and make recommendations concerning any necessary changes to this House of Delegates at the next annual meeting."

Mr. Speaker, I move the adoption of this portion of the report.

F. L. Troost, M.D.: Second the motion.

[*The Vice Speaker assumed the Chair.*]

The Vice Speaker: You are now voting to approve the substitute resolution as recommended by the Reference Committee. Is there discussion of the motion?

Those in favor, say "aye"; opposed, "no." The motion is carried.

XVIII—9(b). HANDBOOK LISTING OF MSMS OFFICERS

[*Dr. Rice read resolution No. 43.*]

J. W. Rice, M.D. [*continuing*]: Your Reference Committee considered this, and since Article IX, Section 1 of the Constitution and Bylaws, on page 154 of the Handbook, lists the officers of the Society as the President, President-Elect, Secretary, Treasurer, Speaker and Vice Speaker, this resolution was approved.

Mr. Speaker, I move the adoption of this part of the report.

R. W. Teed, M.D.: Support.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—9(c). AAPS MEMBERSHIP

[*Dr. Rice read resolution No. 46.*]

J. W. Rice, M.D. [*continuing*]: The Reference Committee recommends that no action be taken on this resolution.

Mr. Speaker, I move the adoption of this portion of the report.

S. L. Loupee, M.D.: Support.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—9(d). MICHIGAN MEDICAL SERVICE REPORT

J. W. Rice, M.D.: Next we considered the annual report of Michigan Medical Service, appearing on page 140 of the Handbook.

Since the first part of our report concerns the financial condition of Michigan Medical Service, I think it would be well for you to look at the figures because I might get them mixed up.

While we realize that the tremendous amount of business done annually in an operation with the magnitude of Michigan Medical Service cannot be reflected in the 11-page report in the Handbook, this Reference Committee feels that some comments are in order.

First, our Reference Committee views with alarm the financial statement of Michigan Medical Service dated May 31, 1959. This statement shows that "reserves for contingencies" shrank to $1,141,364, a loss of $1,350,000 from May 31, 1958 to May 31, 1959.

The loss for the calendar year of 1958 (last year) was $2,998,274. For practical purposes a 3 million dollar deficit is shown on business done in 1958. We do note, however, that for the first five months of 1959 the loss is only $97,383, a noticeable improvement. It is stated that the loss comes from the operation of the old $2,500 and $5,000 policies now in force.

An April 30, 1959, approximately 60 per cent of the policyholders had the old $2,500 and $5,000 policies on which we are losing money, while only 40 per cent of the policyholders had the new M-75 policy.

One year ago we were promised that all policyholders would have M-75 policies by December 31. 1959. Since 33 per cent of the 40 per cent of M-75 policies are now held by automotive employees of the Big Three, it appears that only 7 per cent of the policyholders have converted to M-75, except for those in the Big Three.

We recognize that Michigan Medical Service has been beset by internal problems of the Michigan State Medical Society, as well as resistance to the higher premiums of the M-75 policies. However, we recommend a vigorous campaign to promptly convert all policies to M-75.

We note the deductible policy which is hoped to be the mechanism to accelerate this conversion.

We also are happy to note that Blue Shield now has a contract for those over age sixty-five. We hope that all MSMS members will be humanitarian enough to accept the reduced fees for these older people who are barely keeping off the welfare rolls. A prolonged illness with a large medical bill might push them into a welfare state.

This is the conclusion of our remarks on the financial condition of Michigan Medical Service, and I would like to move that this portion of the report be adopted.

C. W. Oakes, M.D.: Second the motion.

The Vice Speaker: Is there discussion? All those in favor, say "aye"; opposed, "no." The motion is carried.

J. W. Rice, M.D.: Next is the Professional Relations staff annual report.

We understand that the Professional Relations staff of Michigan Medical Service has a particularly difficult job because of the differences in attitudes among the physicians throughout the State.

Because of this, we feel that these representatives of Michigan Medical Service who are also representatives of the Michigan State Medical Society be carefully selected and continually receive in-service training as to the different attitudes and opinions of physicians before they contact either the public or the members of the State Medical Society.

Mr. Vice Speaker, I move the adoption of this portion of the report.

C. W. Oakes, M.D.: Support.

[*The motion was put to a vote and was carried unanimously.*]

J. W. Rice, M.D.: We next considered the Medicare program for dependents of service personnel. This program was revised on October 1, 1958, so as to restrict coverage for wives and children of military personnel. This was apparently due to budgetary limitations.

The Reference Committee believes strongly that the freedom of choice of medical facilities should be returned to these dependents.

The VA Hometown Care program: Most of the recent changes have been in the method of handling reports and payments for VA Hometown Care. The fee schedule has been improved in some instances.

Your Reference Committee believes that the Michigan State Medical Society should continue to work with Michigan Medical Service in developing a type of contract for VA Hometown Care which would provide services of doctors on the best possible basis.

Mr. Vice Speaker, I move the adoption of this portion of the report.

F. P. Rhoades, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

J. W. Rice, M.D.: Mr. Speaker, I move the adoption of the report as a whole.

W. C. Beets, M.D.: Second.

[*The motion was put to a vote and was carried unanimously.*]

J. W. Rice, M.D.: Aside from the report, the Reference Committee would like to state as follows:

Your Reference Committee feels that there is a definite lack of understanding of the Michigan Medical Service program by many of the delegates. We believe this has added to the differences of opinion of the members of the Michigan State Medical Society.

In an effort to correct this and to keep all the delegates informed on the problems of Michigan Medical Service, your Reference Committee moves that a quarterly report be sent to all delegates by the Michigan Medical Service, this report to contain:

1. A report on operating costs and current profit and loss statement.
2. A short description of all types of policies in force.
3. The number enrolled in each type of policy.
4. Some identification or breakdown of the groups enrolled in the various policies, such as automotive workers, clerical workers, teachers, and so on.
5. What income is received from which policies.
6. A breakdown of the disbursement to physicians, M.D.s and D.O.s and Miscellaneous Payments.

Mr. Vice Speaker, I move that this resolution be adopted.

[*The motion was severally seconded.*]

The Vice Speaker: This resolution contains recommendations from the Reference Committee. Is there any discussion of the motion?

C. I. Owen, M.D.: I think this last recommendation is very, very good, but I would like to add one thing, namely, the amount spent on public relations and advertising.

F. B. Levagood, M.D.: I would like to second this amendment.

The Vice Speaker: The amendment by Dr. Owen, seconded by Dr. Levagood, would include the amount spent on public relations and advertising. Is there discussion of the amendment?

[*The amendment was put to a vote and was carried unanimously.*]

The Vice Speaker: Are you ready to vote on the original motion as amended?

[*The motion as amended was put to a vote and was carried unanimously.*]

The Vice Speaker: We thank Dr. Rice and his Reference Committee very much for going through the reports as well as they have. This is the first time I can remember that a reference committee has really looked this thing over from beginning to end and has come to the House of Delegates with a good analytical report.

Thank you very much, Dr. Rice. *(Applause)*

XVIII—10. REFERENCE COMMITTEE ON NATIONAL DEFENSE AND DISASTER PLANNING

XVIII—10(a). CIVIL DEFENSE TRAINING PROGRAMS

[*Dr. Rhoades read resolution No. 36.*]

F. P. Rhoades, M.D. [*continuing*]: After considering this resolution, the Reference Committee added: ". . . and be it further

"RESOLVED: That each of the concerned county medical societies communicate with the nearest Civil Defense office in order to implement this program in their respective areas."

We also discussed at great length the various possibilities of reviving interest in this program in the various sections of the State, and the Reference Committee was of the unanimous opinion that it would be very difficult to whip up any enthusiasm. We felt that this resolution embodied the principal purposes of the Reference Committee, and at this time I would like to move the adoption of this resolution as amended.

J. G. Slevin, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—11. REFERENCE COMMITTEE ON REPORTS OF STANDING COMMITTEES

XVIII—11(a). POSTGRADUATE MEDICAL EDUCATION COMMITTEE

N. J. Hershey, M.D.: Your Reference Committee approved the report of the Postgraduate Medical Education Committee as printed in the Handbook.

Your Reference Committee moves the adoption of this portion of our report.

F. P. Rhoades, M.D.: Support.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—11(b). PREVENTIVE MEDICINE COMMITTEE

N. J. Hershey, M.D.: The report of the Committee on Preventive Medicine was approved, and we recommend the discontinuance of the Cancer Control Committee, with a comment that our physician-representatives on the Michigan Cancer Co-ordinating Committee maintain close scrutiny to preserve patient anonymity in reporting cancer cases.

Mr. Vice Speaker, I move the adoption of this part of our report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

N. J. Hershey, M.D.: The Reference Committee approves the report of the Rheumatic Fever Control Committee as printed.

The annual report of the Maternal Health Committee was approved as printed except for paragraph 4, item 3, referring to the composition of the Board of Michigan Medical Service to specifically include a psychiatrist, since this would establish a precedent for the composition of this Board relating to individual specialties. We disapprove this item in the report.

Mr. Vice Speaker, I move the adoption of this portion of our report as amended.

R. E. Wunsch, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—11(c). PUBLIC RELATIONS COMMITTEE

N. J. Hershey, M.D.: The report of the Public Relations Committee was approved as printed in the Handbook.

I move the adoption of this portion of the report.

R. W. Teed, M.D.: Support.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—11(d). LEGISLATIVE COMMITTEE

N. J. Hershey, M.D.: The report of the Legislative Committee was approved as printed in the Handbook.

Mr. Vice Speaker, I move the adoption of this portion of our report.

J. G. Slevin, M.D.: Second.

[*The motion was put to a vote and was carried unanimously.*]

N. J. Hershey, M.D.: This completes our report, and I now move adoption of the report as a whole, with the amendments as made and acted upon during the presentation of our report.

R. E. Wunsch, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

S. E. Chapin, M.D.: Before I forget it, I would like to thank my Reference Committee, Drs. Dillon, Ruedemann, Scovill and Stander, for getting up so early this morning and having breakfast and coming armed with a lot of "Whereases."

The Reference Committee would like to bring in a resolution entitled "Change in wording of Chapter 6, Section 6." This has to do with the change recommended by the Reference Committee on resolution No. 2, Request for Investigation.

This is a substitute for resolution No. 2, which was disapproved last night. You will remember there was a comment by the Reference Committee that since they had had an opportunity to study Chapter 6, Section 6 of the Bylaws, they had a recommendation. This resolution is the recommendation that came out of a study of resolution No. 2 by the Reference Committee; incidentally, this is resolution No. 48 that we present.

XII—48. BYLAWS (CHAP. 6, SEC. 6): INVESTIGATIVE PROCEDURES

"Whereas, the title of Chapter 6, Section 6 of the Bylaws is entitled, 'Request for Investigation,' and

"Whereas, this Chapter states that 'Disciplinary measures shall be initiated,' and

"Whereas, a request for investigation does not imply the initiation of disciplinary measures; therefore, be it

"RESOLVED: That in Chapter 6, Section 6, of the Bylaws a change of wording be accomplished so that it will read, 'Investigative procedures shall be initiated.'"

The Vice Speaker: This is really a new resolution, not a substitute resolution. Resolution No. 2 was disapproved, and this resolution before you now becomes a new resolution and will have to be put over for one meeting of the House, as it requires a change in the Bylaws. We will hold this in abeyance and will vote on it at our session this evening.

S. E. Chapin, M.D.: In the same connection it is necessary to introduce another resolution, as follows:

XII—49. BYLAWS (CHAP. 7, Sec. 3): INVESTIGATIVE PROCEDURES

"Whereas, it has been recommended that Chapter 6, Section 6, of the Bylaws be amended to read 'Investigative procedures shall be initiated,' and

"Whereas, it is desirable that the Bylaws be as clear and understandable as possible; be it

"RESOLVED: That Chapter 7, Section 3 be changed to read, 'Initiate investigative procedures' instead of 'Initiate disciplinary measures.'"

This is merely a change in wording. You can't change it in one place in the Bylaws without changing it in the other. They both mean the same thing.

The Vice Speaker: This also is a new resolution and would require a change in the Bylaws. We will have to hold it in abeyance until the session this evening. Both of these resolutions will be given back to the Reference Committee, and they will bring them back this evening.

XII—50. BYLAWS (CHAP. 11, SEC. 5): MEMBERSHIP ON ETHICS COMMITTEE

S. E. Chapin, M.D.: On resolution No. 47, part 5, no action was taken in the original report of this Reference Committee because we needed some clarification from the Secretary of the Society. Since we have received that clarification, the Reference Committee presents the following resolution concerning the Ethics Committee of the Michigan State Medical Society. This concerns Chapter 11, Section 5 of the Bylaws, on page 182 of the Handbook.

"Whereas, the report of the Committee on Committees has recommended to the Society that streamlining of the committee structure of the Society be accomplished; therefore, be it

"RESOLVED: That the following changes be made in Chapter 11, Section 5 of the Bylaws concerning the Ethics Committee, to wit:"

Now I will read the old resolution to you.

"The Committee on Ethics shall consist of eight members appointed by the President with the advice of The Council, each member to serve for a four-year term, so staggered that two members are selected annually."

This is the part that we would like to change, and it would read when changed as follows:

"The Committee on Ethics shall consist of five members including the Chairman, appointed by the President with the advice of The Council, each member to serve for a four-year term, so staggered that not more than two members are selected annually and so that no member shall serve more than two consecutive terms."

The Vice Speaker: This also requires a change in the Bylaws, and we will put it off until the meeting tonight.

S. E. Chapin, M.D.: The next resolution, and the last one, came as a result of action of The Council and the Executive Committee of The Council asking that this be done.

The next resolution concerns the Committee on Postgraduate Medical Education. This is Chapter 11, Section 2, page 180 of the Handbook.

XII—51. BYLAWS (CHAP. 11, SEC. 2): MEMBERSHIP ON POSTGRADUATE MEDICAL EDUCATION COMMITTEE

"Whereas, the report of the Committee on Committees has recommended to the Society that streamlining of the committee structure of the Society be accomplished; therefore, be it

"RESOLVED: That the following changes be made in Chapter 11, Section 2 of the Bylaws, concerning the Committee on Postgraduate Medical Education."

I will read it as it stands now:

"Section 2. The Committee on Postgraduate Medical Education shall consist of a Chairman and twelve members, four of whom shall be appointed each year to serve for a three-year term."

The "Resolved" would change this to read:

"RESOLVED: That the Committee on Postgraduate Medical Education shall consist of seven members, including the Chairman, with the deans of the two medical schools acting in an advisory capacity. Each member of this Committee is to serve for a four-year term, so staggered that not more than two members are selected annually, and so that no member shall serve more than two consecutive terms."

As you can see, we are attempting to give this a little more uniformity.

THE VICE SPEAKER: This also will have to be put off until the session this evening.

S. E. CHAPIN, M.D.: Just one more matter. It was the feeling of the Reference Committee that we should reconsider the problem brought up by resolutions Nos. 44 and 45 last night on election of the Michigan State Medical Society Secretary and Treasurer. We are proposing an amendment to the Constitution, and of necessity it will have to lie over for one year.

The Reference Committee presents the following amendment to the Constitution:

XII—52. CONSTITUTION (ARTICLE X, NEW SEC. 3): VOTING PRIVILEGES OF SECRETARY AND TREASURER

"Whereas, the nature of the positions of Secretary and Treasurer of the Michigan State Medical Society is such that continuity of service is desirable, and

"Whereas, it would be to the disadvantages of the Michigan State Medical Society to change this office so frequently, and

"Whereas, the Secretary and Treasurer of the Michigan State Medical Society are not directly elected by the members of the House of Delegates; therefore, be it

"RESOLVED: That the Constitution of the Michigan State Medical Society be amended by the addition of Section 3 to Article 10, reading: 'The Secretary and Treasurer shall not be entitled to vote while serving on The Council of the Medical Society or the Executive Committee of The Council.' "

Unless there is other business to come before us at this time, we will adjourn until 8 p.m. tonight.

(The meeting recessed at 10:20 a.m.)

TUESDAY EVENING SESSION

September 29, 1959

The meeting reconvened at 8:20 p.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

THE SPEAKER: I have some additional telegrams that I would like to read.

"On behalf of Congressman Bentley, who is out of the country on official business, I would like to commend the Michigan State Medical Society on their selection of Dr. Archer A. Claytor as Michigan's Foremost Family Physician for 1959. I am sure that the Congressman will be pleased to learn of Dr. Claytor's being accorded this high honor, and I know he was very proud to recommend Dr. Claytor for the Award."

s/ THOMAS B. JOSEPH,
Assistant to Alvin M. Bentley, Member of Congress

(Applause)

"Please convey to Dr. Archer A. Claytor my sincere congratulations upon his selection as Michigan's Foremost Family Physician. I am proud that my native State gives men like Dr. Claytor the opportunity to serve society and to receive the rewards and recognition to which they are entitled."

s/ JOHN A. HANNAH,
Chairman, Commission on Civil Rights

(Applause)

"Our congratulations to the Michigan Medical Society and its Foremost Family Physician for 1959, Dr. Archer Claytor. This honor to outstanding physician and representative of his group well deserved. His civic and medical contributions certainly merit this recognition. American Medical Association salutes its illustrious member, Dr. Claytor."

s/ LEONARD W. LARSON, M.D.,
Chairman of the Board of Trustees, American Medical Association.

(Applause)

XIX. MSMS PARTICIPATION IN STATE FAIR

S. E. CHAPIN, M.D.: I think it worthwhile to report to the House of Delegates on what we feel is an outstanding public relations effort on the part of some members of the State Medical Society.

Last June we were invited to take part in the Michigan State Fair. The public relations staff of the State Medical Society, particularly Jack Pardee and his secretary, Doris Jarrad, who did all of the detail work, organized a State Medical Society exhibit. This consisted of a replica of a doctor's office with all of the equipment. All of it was tagged with prices. The equipment was loaned by the Randolph Surgical Company.

In addition, those responsible for the exhibit were able to bring a number of the organizations interested in health careers, as well as many of the voluntary health agencies, to supplement this exhibit. We don't have an exact count but, believe me, on those hot afternoons between September 4 and 13, innumerable thousands of people went through Whitehall and stopped to see all of the exhibits, and particularly the State Medical Society's exhibit.

Why they didn't wear out the buttons on the exhibit, which shows organs in the body, I don't know. They pushed them all day and all night. We took something like 5,000 blood pressures. We did hundreds of electrocardiograms. We took heights and weights, and explained and answered innumerable very intelligent questions from many people on various aspects of medicine.

We are indebted to the Public Relations Committee of the Wayne County Medical Society, Dr. Gustafson, Chairman of the Public Relations Committee of Oakland County and his committee. Dr. Rousseau, President of the Macomb County Medical Society and his staff of doctors who helped to man the exhibit. In all, we had seventy-three doctors who spent anywhere from two to six hours on those hot afternoons and evenings helping to man the exhibit and to answer questions. *(Applause)*

From Wayne State University Medical College we had forty medical students at various times during the ten days. Eighty members of the Woman's Auxiliary spent anywhere from two to six hours each helping to man the exhibits, sometimes two and four at a time. *(Applause)*

Sixty-seven members of the Medical Assistants Society helped to man the exhibits. This was indeed, as you can see, a really co-operative venture. *(Applause)*

I believe, just as the experience was at the Saginaw Fair last year, that the trend toward the use of physicians in a program of public education is an extremely valuable one, and is something that we should put a little more effort into if possible.

The State Medical Society received the First Prize for the best health exhibit at the Fair. This is the Prize.

Mr. Speaker, **I move that the House of Delegates instruct the Secretary to write a letter of commendation to each of the organizations that took part in this co-operative public relations venture.**

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*] *(Applause)*

S. A. Fiegel, M.D.: This is in regard to a spring meeting.

XII—53. SPRING SESSION OF MSMS HOUSE OF DELEGATES

"Whereas, the amount of work required by the House of Delegates at the Annual Session has been gradually increasing, and

"Whereas, the number of meetings of the House of Delegates has been more and more, even extending into four days, and

"Whereas, the work of some of the reference committees has become of such magnitude that time has not allowed thorough discussion and resolution of the problems at hand; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society meet in a one-day session to resolve a portion of its functions the day prior to the meeting of the Michigan Clinical Institute in March of each year, for such work as is deemed necessary."

The Speaker: This resolution will be referred to the Reference Committee on Rules and Order of Business.

I should like to introduce to you Dr. O'Neal, from the Illinois State Medical Society. *(Applause)*

Also, Dr. Louis Hirschman, who is our oldest living Past President.

(The audience arose and applauded.)

XX. MICHIGAN MEDICAL SERVICE ELECTIONS, SEPTEMBER 29, 1959

C. I. Owen, M.D.: The report of the tellers in the election is as follows:

Mr. Gillen	155 votes
Dr. Novy	140 votes
Dr. Blodgett	139 votes
Dr. DeTar	85 votes
Dr. Cameron	83 votes
Dr. Rice	81 votes
Dr. Sweeny	81 votes
Dr. Cooper	79 votes
Dr. Thorup	78 votes
Dr. Kozonis	77 votes

Dr. Brink and Dr. Kozonis each had 77 votes and were tied for tenth place. A coin was tossed and Dr. Kozonis was elected.

Michigan Hospital Association representatives, two to be elected for three-year terms: Dr. Kerlikowski, 110 votes, and Mr. Schaefer, 101 votes.

XVIII—12. REFERENCE COMMITTEE ON REPORTS OF THE COUNCIL

Paul Ivkovich, M.D.: The Reference Committee on Reports of The Council met with all of the members present. The Reference Committee finds The Council very inspiring in following its scientific program.

In the report of the financial statement, The Council has shown good business acumen in maintaining a substantial balance.

The Journal is to be commended upon maintaining a high personal standing in diverse articles and editions. However, the editorials presented should be a representation of the majority of MSMS members in its policy discussions. In addition, a "Letters to the Editor" page should be incorporated in its editions.

In the report, the Reference Committee recommends that on page 52 of the Handbook the last two sentences in paragraph 1 be changed. As it reads now, speaking of editions, it states: "June has been devoted to Michigan Medical Service. Michigan is unique in that Michigan Medical Service is an integral part of the state Medical Society, members of the House of Delegates being the corporate body of Blue Shield and electing the Board of Directors."

We recommend the following change:

"June has been devoted to Michigan Medical Service, which is sponsored by the Michigan State Medical Society, members of its House of Delegates being the corporate body of Blue Shield and electing the Board of Directors."

The Council through its organization section has rewarded national medical leaders from Michigan who have performed outstanding service to their profession.

In the report on the contact with governmental agencies, it should be brought to the attention of the House of Delegates that The Council has accepted the modified Veterans Administration proposal for the year 1959-1960 with serious misgivings and the statement, "Unless the program for care of veterans is much improved for next year, that MSMS seriously consider discontinuing its participation."

The Reference Committee feels that commendation is due to the fine work of the many committees that have been appointed by The Council during the past year. There are many items in this report which the Reference Committee probably should mention; however, due to the limitations of time we can only recommend that this splendid report be read in its entirety and that it be called to the attention of the component county medical societies. To the various committees the Reference Committee extends its congratulations.

Much acclaim should be given to the Committee on Big Look and its Chairman, W. S. Jones, M.D., the "transplanted Southerner."

The Committee on Uniform Fee Schedule for Governmental Agencies must have received a transfusion to do such a noble job in revising the fee schedule.

Much discussion was raised in the report by the Committee to Study Feasibility of Greater Partcipation in Blue Shield, where in the second paragraph, page 72, in the second sentence, the word "ethically" was used. Your Reference Committee advises the Committee to Study Feasibility of Greater Participation in Blue Shield to change paragraph 2, page 72 to read:

"After two meetings, it was our conclusion that The Council should advise Blue Shield that, within the strict interpretation of the Enabling Act, Blue Shield is obligated to pay only the participating doctor of medicine directly."

The Reference Committee takes cognizance of the splendid program of the Woman's Auxiliary, and of Mrs. Robert E. Reagan for her leadership. Her outline of the long-term program of the Auxiliary should be wholeheartedly supported by MSMS, and a closer liaison between the Auxiliary and MSMS should be maintained.

The Public Relations Department of MSMS is a highly efficient and important part of your organization. Its achievements speak for themselves.

The supplemental annual report of the MSMS Medical Care Insurance Committee is recommended by your Reference Committee to be read very carefully. Usage of this report has been transferred to another reference committee.

The supplemental report of The Council was submitted to the Reference Committee for consideration. It wishes to commend the Michigan Cancer Co-ordinating Committee for its enlightening and educational program.

The Reference Committee is in favor of the program outlined by the Committee on Alcoholism, and believes The Council should have this committee continue its study.

Your Reference Committee, in viewing the report of the committee appointed by the Executive Committee to develop the history of matters pertaining to what the Michigan State Medical Society and its committees have done in connection with prepaid medical care coverage, has this to comment: Council members were given copies of new insurance contracts to approve, with a "deadline" of the next morning. A complex subject such as an insurance contract cannot be thoroughly familiarized with all its details in such a short time.

The Reference Committee feels that the action of The Council in approving the contracts is to be deplored, and that The Council should take adequate time to arrive at a proper decision. In the future, no vital subject should be voted upon until such time as members of The Council have had time to familiarize themselves with the problem.

The Reference Committee acted upon the recommendations of The Council as follows:

Recommendation 1. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1960 on the occasion of the Annual Michigan Day, as recommended for many years by the House of Delegates.

Mr. Speaker, the Reference Committee moves that this recommendation be adopted.

E. G. Krieg, M.D.: Support.

The motion is that we send representatives to Washington, D. C., again, as we have done for several years in the past, at the time of the Annual Michigan Day.

[*The motion was put to a vote and was carried unanimously.*]

Paul Ivkovich, M.D.: Recommendation 2. That The Council be authorized to arrange Councilor conferences, prior to the Annual Session, to continue communication with and to impart information to the membership, as has been done during the past two years.

Mr. Speaker, I move the adoption of this recommendation.

G. W. Slagle, M.D. [Calhoun]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

Paul Ivkovich, M.D.: Recommendation 3. That an evaluating team visit those county medical societies that request same. This team would review county medical society activity as compared with good organizational practice, and would make recommendations for improved organization, administration and services, with the end in mind of increasing the strength of county medical societies and improving their public relations potential. This survey would be made only on request of the county medical society. The evaluating team would consist of state and county officers plus state staff members and such other outside experts or advisers as the evaluating team deems necessary. Upon completion of the evaluation, concrete recommendation would be offered.

Mr. Speaker, I move the adoption of this recommendation.

E. J. Tallant, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

Paul Ivkovich, M.D: Recommendation 4. That during the months of October and November, 1959, a team of MSMS speakers arrange an itinerary whereby it may efficiently cover a major portion of the Lower Peninsula. Said team would report on the actions of the House of Delegates, the plans for the future of the Michigan State Medical Society, and would attempt to stimulate organizational and public relations awareness on the part of county medical societies and individual M.D.s. The Upper Peninsula would receive the same service in the spring of 1960.

Mr. Speaker, I move the adoption of this recommendation.

S. E. Chapin, M.D.: Second.

L. F. Hayes, M.D.: I would like to point out that it seems to me this is an appropriation of the delegates' responsibility. I don't see why it is necessary to go to the expense and trouble of getting a team from the Michigan State Medical Society headquarters to go out and tell the component medical societies what has happened. They have representatives here who are supposed to be doing that job. I don't think this particular action is necessary.

The public relations efforts might be very much needed, particularly in smaller county medical societies, but certainly not a report of what has happened here in the House of Delegates meeting, because that is our responsibility.

The Speaker: Further discussion? Those in favor, say "aye"; opposed, "no." [*The motion is lost.*]

Paul Ivkovich, M.D.: Recommendation 5—That the House of Delegates give favorable consideration to changing the Bylaws in Chapter 16, Section 2 to read: "Any member in arrears after June 30 of each official year shall stand suspended," and so on.

Your Reference Committee neither approves nor disapproves this recommendation, as this subject has been brought on the floor and acted upon by another committee.

Mr. Speaker, I move the adoption of this report in its entirety.

S. L. Loupee, M.D.: Support.

The Speaker: The motion is to approve the report of the Reference Committee as a whole.

[*The motion was put to a vote and was carried unanimously.*]

Dr. Chapin wishes to come back to the podium with a supplemental report of the Reference Committee on Constitution and Bylaws.

XVIII—6(m). BYLAWS: DELETE CHAPTER 7 RE GRIEVANCE COMMITTEE

[*Dr. Chapin read resolution No. 29*]

S. E. Chapin, M.D.: The Reference Committee on Constitution and Bylaws unanimously disapproves resolution No. 29, expressing the feeling that since a good mediation committee is an extremely important function of the medical society, Chapter 7 of the Bylaws should not be deleted.

Mr. Speaker, I so move.

L. F. Hayes, M.D.: Second.

M. R. Weed, M.D. [Wayne]: The recommendation of the Reference Committee is not contrary to the recommendations made in this resolution. I think there is no doubt that a mediation committee is an important function of any county medical society. Indeed, it is so important that county medical societies have two mediation committees that are going at a full head of steam all the time.

The reason for submitting this resolution is that here we have a constitutional anomaly. We have a situation in which the State Society directs the county society as to the establishment of a committee that does not refer back its actions in any way whatsoever to the state Society, and this is the only committee in which such constitutional provision is made.

From a practical standpoint it would appear that this particular Bylaw in the State Constitution unnecessarily complicates life for some of the county societies, particularly the two mediation committees, because in the development of the procedure outlined here, and subsequent reference to the Ethics Committee in those cases where some violation of ethics is suspected, a tremendous amount of correspondence and as many as five appearances for different parts of the procedure must be made by the individual who is accused.

For these reasons I move a substitute resolution, which is the original resolution No. 29.

[*The motion was severally seconded.*]

The Speaker: I don't want to quibble, but I don't

think we need another resolution. We can either support the Reference Committee's recommendation, or reject it.

G. S. Fisher, M.D.: No.

The Speaker: Beg pardon? The recommendation of the Reference Committee is to disapprove resolution No. 29. I see what you want to do. You want to approve it; is that it?

G. S. Fisher, M.D.: If we disapprove the Reference Committee's recommendation, we will not have voted on resolution No. 29.

The Speaker: Your motion, then, is to approve? Your motion is to substitute; that is correct. Again, as an amendment, you can do exactly the opposite to what you are trying to do. All you have to do is to vote this one down, and then make a new motion to approve resolution No. 29. You may do that. You can't make a substitute motion that is diametrically opposed.

The Chairman of the Reference Committee would like to answer.

S. E. Chapin, M.D.: We don't disagree with the discussion. The feeling of the Reference Committee was that if this part of the Bylaws were left as it was, then no component county medical society could avoid having a mediation committee. That was the only reason why we felt this should not be taken out of the State Medical Society Bylaws.

E. J. Tallant, M.D.: This is a highly technical problem, as we are all aware. It is a problem that has been gone into at great length by the Wayne County Medical Society, and the resolution was introduced upon the advice of the attorney of the Wayne County Medical Society. We sought legal advice before introducing the resolution. It is a highly technical resolution.

H. B. Zemmer, M.D.: I can see that this might be a bit cumbersome for a county society the size of Wayne. However, there are many smaller societies outstate where the mediation committee has to be composed pretty much of the whole membership. It becomes very hard for a such a group to decide. Perhaps the groups are thrown a little more closely together outstate than they are in Wayne County.

Therefore, I think this should be retained, because it is only fair to the individual being investigated that he still can appeal to the State Society, which might be further away from the situation.

T. J. Dillon, M.D.: I feel it should be left in. A member of the committee brought up this same matter. Medicine is under fire all the time to provide some extra policing, all the way from Senator Wayne Morse on down. Leaving this in the Bylaws of the State Medical Society is evidence and further proof that the Society is interested in policing its own efforts to maintain its own quality and provisions for further care of its own members, rather than giving someone a chance from the outside to step in and say, "Now they are doing away with their own policing," and any excuse would be grasped upon. I think it should be left in.

J. D. Miller, M.D.: Very quickly I would like to second Dr. Zemmer's statement. The reason this was put in the State Society structure a long time ago (and I happen to remember something about it) was to relieve small societies of the burden of trying to discipline their own friends under circumstances that might be quite embarrassing.

The doctor from Van Buren has added another fine point. Thank you.

E. M. Vardon, M.D.: Mr. Speaker and delegates, this matter is technical, and it is very confusing when you read it, but in actual working out I think it is a contradiction.

First, it says "grievances of nonmembers." How can they go to a State mediation without going through the county society? I would like to know how many times this grievance committee has been called upon and has met in the last two or three years. I can't see any function for it, because it seems to be contradictory.

M. R. Weed, M.D.: There isn't any contradiction as far as Dr. Vardon's remark is concerned, because this does not set up a State mediation committee. This directs the county societies to set up such mediation committees.

In answer to Dr. Zemmer's remark that it would be impossible to refer such cases from the county society without this procedure, there is nothing set up in Chapter 7 which indicates that mediation cases as such will be referred to the State Society under any circumstances.

If an individual chooses not to co-operate with the mediation committee of his county society, then provision is made so that he can be referred to the Ethics Committee for disciplinary investigation.

If an ethical violation is found by the mediation committee, they are empowered to refer to the ethics committee of the county society, which in turn will then refer the case to the State Society. This is merely a directive from the State Society to county societies as to how they shall operate in an area which does not refer directly back to them.

As far as the problem of the smaller county societies who have not established procedures other than those in the State Bylaws is concerned, that provision is taken care of in the original resolution, in that in that resolution it is suggested that this Chapter be referred to county societies as a guide for procedure, and they can either adopt it lock, stock and barrel or they can modify it to fit the peculiar situation that may exist in that county.

I want to emphasize again that there is no doubt that every county society, in our opinion, should have a mediation committee. Some should have more than one mediation committee. That is not the point. The point, as I see it, and this may be peculiar, is that this is the only committee of a county medical society that is specifically ordered by the State Society without any check on the committee subsequently or any reference back by the State Society.

The Speaker: The question is called for. I don't want to shut off discussion prematurely, but I believe the matter has been properly presented.

G. S. Fisher, M.D.: The vote is on the substitute motion?

The Speaker: No. Vote this down if you wish. Then, if you want to make another motion, do so. If you approve the Reference Committee's recommendation, then this motion will be lost. If you vote down the Reference Committee's recommendation you may propose a substitute motion to approve.

Voice: Please re-read the recommendation.

S. E. Chapin, M.D.: The Reference Committee disapproves resolution No. 29.

The Speaker: If you want to accomplish what you want to accomplish, Dr. Fisher, vote this down and then propose another motion. However, if the action of the Reference Committee is sustained, you are all done; right?

All those in favor of the Reference Committee's recommendation that this resolution be disapproved, say "aye"; opposed, "no." Do you have your glasses on, Mr. Secretary? All those in favor of the recommendation of the Reference Committee that this resolution be disapproved, raise your right hand. All those opposed to the recommendation of the Reference Committee, which was to disapprove the resolution, raise your right hand.

The vote is 74 for the Reference Committee's disapproval and 48 against the Reference Committee's disapproval. The Reference Committee's action, which was to disapprove the resolution, is so ordered.

R. J. Kokowicz, M.D. [Wayne]: Mr. Speaker, I call for a re-vote. There happens to be fifty-one Wayne delegates and only one voted against it. I counted them myself.

S. E. Chapin, M.D.: I am up here.

R. J. Kokowicz, M.D.: Forty-nine, then? *(Laughter)*

The Speaker: Do you want a recount?

R. J. Kokowicz, M.D.: I do.

G. S. Fisher, M.D.: I might mention that I happen to know another delegate who is voting for this. That would make fifty.

The Speaker: It seems to me the vote was very clear. If you want a recount—

[*Cries of "No!"*]

XVIII—6(n). BYLAWS, (CHAP. 6, SEC. 6): INVESTIGATIVE PROCEDURES

S. E. Chapin, M.D.: "Whereas, the title of Chapter 6, Section 6 of the Bylaws is entitled, 'Request for Investigations,' and

"Whereas, this Chapter states that 'Disciplinary measures shall be initiated,' and

"Whereas, a request for investigation does not imply the initiation of disciplinary measures; therefore, be it

"RESOLVED: That in Chapter 6, Section 6 of the Bylaws a change of wording be accomplished so that it will read, 'Investigative procedures shall be initiated.' "

I move the adoption of resolution No. 48 as read.

[*The motion was severally seconded.*]

R. R. Cooper, M.D.: Mr. Speaker, I would like to move that this matter be referred to the new committee of the House that will consider Bylaw changes; the committee that was ordered this morning. It seems to me it is proper business for them. We ordered the setting up of a committee to study all the changes so that there would be no haphazard changes in the Bylaws. It seems to me these changes could very justifiably be sent to that committee for study, instead of in a rather hurried Reference Committee report.

R. E. Wunsch, M.D.: Support.

The Speaker: All those in favor of the substitute motion, say "aye"; opposed, "no." The motion is lost.

Are you ready for the vote on the original motion? All in favor, say "aye"; opposed, "no." The motion is carried.

XVIII—6(o). BYLAWS (CHAP. 7, SEC. 3): INVESTIGATIVE PROCEDURES

S. E. Chapin, M.D.: Whereas, Chapter 6, Section 6 of the Bylaws has been amended to read, 'Investigative procedures shall be initiated,' and

"Whereas, it is desirable that the Bylaws be as clear and understandable as possible; therefore, be it

"RESOLVED: That Chapter 7, Section 3 be changed to read, 'Initiate investigative procedures' instead of 'Initiate disciplinary measures.' "

I move the adoption of this resolution.

F. P. Rhoades, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—6(p). BYLAWS (CHAP. 11, SEC. 5): MEMBERSHIP ON ETHICS COMMITTEE

S. E. Chapin, M. D.: "Whereas, the report of the Committee on Committees has recommended to the Society that streamlining of the committee structure of the Society be accomplished; therefore, be it

"RESOLVED: That the following changes be made in Chapter 11, Section 5, of the Bylaws concerning the Ethics Committee, to wit:

" 'The Committee on Ethics shall consist of five members including the Chairman, appointed by the President with the advice of The Council, each member to serve for a four-year term so staggered that not more than two members are selected annually, and so that no member shall serve more than two consecutive terms.' "

Mr. Speaker, I move the adoption of this resolution.

[*The motion was severally seconded, put to a vote and carried unanimously.*]

XVIII—6(q). BYLAWS (CHAP. 11, SEC. 2): MEMBERSHIP ON POSTGRADUATE MEDICAL EDUCATION COMMITTEE

S. E. Chapin, M.D.: "Whereas, the report of the Committee on Committees has recommended to the Society that streamlining of the committee structure of the Society be accomplished; therefore, be it

"RESOLVED: That the following changes be made in Chapter 11, Section 2 of the Bylaws concerning the Committee on Postgraduate Medical Education, to wit:

" 'The Committee on postgraduate Medical Education shall consist of seven members including the Chairman, with an invitation to the deans of the two medical schools to act in an advisory capacity. Each member of this Committee is to serve for a four-year term so staggered that not more than two members are selected annually and so that no member shall serve more than two consecutive terms.' "

Mr. Speaker, I move the adoption of this resolution.

[*The motion was severally seconded.*]

J. R. Heidenreich, M.D. [Menominee]: I think this Committee should have something to say about the recommendations made here because of the complexities of the postgraduate departments of the two universities. It would sort of hamstring and change the Committee considerably if we acted upon this tonight, and I would much rather see this laid over for one year so there can be consultation with the members of the Committee before any attempt is made to change the makeup of the Committee. I move that this resolution be tabled for a year.

F. P. Rhoades, M.D.: I support that.

Those in favor, say "aye"; those opposed, "no." The motion carried.

XVIII—6(r). CONSTITUTION (ARTICLE X, NEW SEC. 3) VOTING PRIVILEGES OF THE SECRETARY AND TREASURER

S. E. Chapin, M.D.: "Whereas, the nature of the positions of Secretary and Treasurer in the Michigan State Medical Society is such that continuity of service is desirable, and

"Whereas, it would be to the disadvantage of the Michigan State Medical Society to change these officers frequently, and

"Whereas, the Secretary and Treasurer of the Michigan State Medical Society are not directly elected by the members of the House of Delegates; therefore, be it

"RESOLVED: That the Constitution of the Michigan State Medical Society be amended by the addition of Section 3 to Article 10, reading, 'The Secretary and Treasurer shall not be entitled to vote while serving on The Council of the Medical Society or the Executive Committee of The Council.' "

The Speaker: This must be laid over for one year, as it is a constitutional amendment. It is so ordered.

S. E. Chapin, M.D.: Mr. Speaker, I would like to move the adoption of the complete report of the Reference Committee on Constitution and Bylaws.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*] *(Applause)*

The Speaker: May I introduce Dr. H. P. Hazeltine, President-elect of the Illinois State Medical Society *(Applause)*

XXI. ELECTIONS

XXI—1. COUNCILOR FOURTH DISTRICT

Councilor, Fourth District, to succeed Ralph W. Shook, M.D., of Kalamazoo, deceased.

N. J. Hershey, M.D.: With the unanimous approval of the delegates of the component medical societies, I have the honor and distinct pleasure to nominate William Scott, M.D., of Kalamazoo, for Councilor from the Fourth District.

F. C. Ryan, M.D.: I second Dr. Scott's nomination.

The Speaker: Are there further nominations?

W. K. Locklin, M.D. [Kalamazoo]: I move nominations be closed and that the Secretary be instructed to cast the unanimous ballot for Dr. Scott.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XXI—2. COUNCILOR 14TH DISTRICT

The Speaker: Nominations are in order for Councilor from the Fourteenth District. B. M. Harris, M.D., is the incumbent.

H. F. Falls, M.D.: It is a distinct pleasure for the Fourteenth District to recommend as a candidate for Councilor of the Fourteenth District Dr. Bradley M. Harris, the incumbent, who has served in this capacity in a most adequate and rewarding manner, and it is with gratification and also with gratitude for services well performed that we have the honor of recommending his candidacy.

S. T. Harris, M.D. [Washtenaw]: I wish to second the nomination.

V. M. Zerbi, M.D. [Washtenaw]: I would like to move that the Secretary cast the unanimous ballot in favor of Dr. Harris.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XXI—3. COUNCILOR 15TH DISTRICT

The Speaker: For the Fifteenth District, to succeed D. Bruce Wiley, M.D., resigned.

W. J. Zimmerman, M.D.: The Fifteenth District, Macomb and Oakland Counties, is privileged to nominate Dr. Robert J. Mason for Councilor for our District. Dr. Mason is a pediatrician in the city of Birmingham. He has served in the County Society for a long period of time, is a Past President, and has been a member of the Board of Directors for many years. Dr. Mason has recently retired from his post as chief of staff at St. Joseph Mercy Hospital in Pontiac.

The Speaker: Robert J. Mason, M.D., has been nominated for Councilor for the Fifteenth District.

E. G. Siegfried, M.D. [Macomb]: I second the nomination of Dr. Mason.

M. A. Haanes, M.D. [Oakland]: I move that the unanimous ballot be cast for Dr. Mason.

[*The motion was severally seconded, was put to a vote and was carried unanimously.*]

The Speaker: Dr. Mason is declared elected.

XXI—4. COUNCILOR EIGHTEENTH DISTRICT

E. J. Tallant, M.D.: It gives me great pleasure to place in nomination for Councilor of the Eighteenth District the name of Dr. William Bromme, the present incumbent, who has served us faithfully and well.

R. E. Wunsch, M.D.: Mr. Speaker, I move that nominations be closed and that the unanimous ballot be cast for Dr. William Bromme.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XXI—5. DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

L. F. Hayes, M.D.: It is my pleasant task to place in nomination for delegate to the AMA the name of Dr. O. J. Johnson. In supporting his nomination I would like to point out that he has been a member of this House of Delegates for nine years, and as evidence of his worth he was elected to The Council in 1957. He has also been an alternate delegate to the AMA for six years, and in that capacity has attended each meeting and has plenty of experience to back him up.

G. W. Slagle, M.D.: I wish to second the nomination of Dr. O. J. Johnson and state that he has served very well with our delegates and alternate delegates to the AMA.

J. G. Slevin, M.D.: I would like to place in nomination the name of Dr. C. I. Owen, the present incumbent, as delegate to the AMA. He has worked very diligently on various committees of the AMA to help us. He is a man whom we can depend upon to help us in all phases of private practice. He is well known to the members of the AMA delegation, having served as a delegate for many years.

G. S. Fisher, M.D.: Mr. Speaker, I would like to second the nomination of Dr. C. I. Owen. I support him. He needs no crutch, I am sure of that. I certainly certify to his ability of being able to walk up and down the corridors of the AMA.

F. C. Brace, M.D. [Kent]: For delegate to the AMA it is my privilege to nominate Dr. William A. Hyland of Grand Rapids. If I were to list his many services year after year I would take too much time. Moreover, it would not be necessary, because of his wide personal acquaintance. Dr. Hyland has been a delegate from this Society since 1946. He has held many offices in the State Society, being a Past President and a long-term Treasurer. He was Chairman of the recent Committee on Reorganization of the AMA, and was commended nationally for his splendid work.

In addition to these very practical services and achievements in behalf of the medical profession, his friendliness and unfailing courtesy continue to win him many friends for medicine. In these times, when medicine is being attacked from so many unfriendly borders, we need all the friends we can make.

It gives me great pleasure to represent Kent County Medical Society and nominate Dr. William A. Hyland as delegate to the AMA.

C. I. Owen, M.D.: It gives me great pleasure to second the nomination of Dr. Hyland. I have served with him for many years. He is one of the greatest men in medicine in Michigan, and one of the best known delegates to the AMA. He could have almost any office he might choose to have in that organization.

R. W. Teed, M.D.: Mr. Speaker, I would like to place in nomination the name of Dr. John S. DeTar, incumbent. All of you know Jack. He has been a member of this House of Delegates and served as its Vice Speaker and Speaker. He has been on several important committees in the House of Delegates, as well as a high office in the American Academy of General Practice. It gives me great pleasure to present his name in nomination.

H. A. Scovill, M.D. [Washtenaw]: I wish to second the nomination of Dr. Jack DeTar for delegate to the AMA. Dr. DeTar has served faithfully and well in this capacity, and this Society should continue to be represented in our national organization in the typically forceful manner of Jack DeTar.

D. I. Sugar, M.D.: Mr. Speaker, I move that nominations be closed.

[*The motion was severally seconded.*]

The Speaker: I believe four names have been submitted: is that right? Four is the number required, so if nominations are closed at this time it would mean that they would be unanimously elected.

D. I. Sugar, M.D.: I so move.

[*The motion was severally seconded.*]

[*The motion was put to a vote and was carried unanimously.*] *(Applause)*

XXI—6. ALTERNATE DELEGATES TO AMA

The Speaker: Next is nomination and election of alternate delegates to the AMA.

We will vote on a candidate to fill the unexpired term of Dr. Ralph Shook, which will be a one-year term. We will do that first, I believe, unless you want to do it all together, although I believe it would be better to do it first.

Then we will have nomination for four as alternates.

W. S. Jones, M.D.: Mr. Speaker, may I have the privilege of the floor?

The Speaker: You may.

W. S. Jones, M.D.: May I have the privilege of making a nomination?

W. S. Jones, M.D.: I asked for the privilege of the floor for the simple reason that the man I should like to nominate is from my own county, and he is the delegate. Nobody else in the county would nominate him. *(Laughter)*

Mr. Speaker, the man I should like to put in nomination is Dr. Heidenreich. He has been in this House for ten years. He has been very active and forthright in his work for the State for many years. I should like to nominate Dr. John R. Heidenreich, of Daggett, Michigan.

The Speaker: Do I understand that this is for the unexpired term of Dr. Ralph Shook? Thank you.

C. I. Owen, M.D.: Mr. Chairman, I would like to second that nomination and move that nominations be closed and that he be elected.

L. F. Hayes, M.D.: Support.

The Speaker: Are there further nominations?

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: **Dr. Heidenreich is declared elected.** *(Applause)*

G. W. Slagle, M.D.: In view of the fact that the Bylaws call for balloting and the individual receiving the highest number of votes having seniority. **I would like to move that Dr. Heidenreich assume the position of seniority that Dr. Shook had.**

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: The vote for alternate delegates must be by ballot, because we have to establish their seniority. Nominations are now open for alternate delegates, and four are to be elected.

F. H. Power, M.D. [Grand Traverse]: Mr. Speaker, I wish to place in nomination the name of Dr. E. F. Sladek of Traverse City. He served as President of our State Medical Society in 1948, and for years has been an alternate delegate to the AMA. He has taken considerable interest in the affairs of the AMA. Dr. Sladek very definitely would like to continue as an alternate delegate to the AMA. I seek your support of his nomination.

E. M. Vardon, M.D.: Mr. Speaker, I would like to place in nomination the name of a man who has been very well known and well thought of both on the local and State levels. He is known throughout the State. He has held many high positions of responsibility and trust not only in our local Society but in the State Society and also in many national societies.

It gives me great pleasure to nominate Dr. Warren Babcock.

R. R. Garneau, M.D. [Manistee]: It is with great pleasure that I second the nomination of Dr. Sladek of Traverse City for alternate delegate. He is well known to many of the members of the House and has been a tireless worker for the Michigan State Medical Society for years.

D. A. Bowman, M.D.: I would like to nominate a man who needs no introduction, our Past President, Dr. Gilbert Saltonstall, as alternate delegate to the AMA.

F. L. Troost, M.D.: Mr. Speaker, I would like to nominate for alternate delegate Dr. John Wellman, of Lansing. Dr. Wellman has been in Lansing for twenty-five years. He has been a member of this House for eleven years. He is a Past President of the Ingham County Medical Society. He is a Director of Blue Shield. He is Chairman of the Medical Advisory Committee of Blue Shield.

Not only does he have time to conduct his practice, but he takes a great deal of time in our affairs. I think his two outstanding qualities are his absolute integrity and his unfailing sense of fairness.

G. W. Slagle, M.D.: I would like to second the nomination of Dr. Gilbert Saltonstall, who was my successor and who has carried on an excellent career and has done a terrific job as President during the past year.

V. M. Zerbi, M.D.: I would like to place in nomination the name of Dr. Bradley Harris as alternate delegate to the AMA.

G. S. Fisher, M.D.: I would like to second the nomination of Dr. Warren Babcock as alternate delegate.

T. G. Kabza, M.D. [*Washtenaw*]: I would like to second the nomination of Dr. Babcock.

J. W. Rice, M.D.: I would like to move that nominations be closed.

H. W. Harris, M.D.: Before nominations are closed, I would like to second the nomination of Dr. Wellman.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: The nominees are Dr. Sladek, Dr. Babcock, Dr. Saltonstall, Dr. Wellman and Dr. Harris. You will vote for four and use the second ballot in the Handbook.

G. W. Slagle, M.D.: Mr. Speaker, I wonder if the delegates are fully cognizant of the fact that they should vote in the order of their preference, 1-2-3-4, in order to decide the seniority of the alternates. A few years ago that was not done and we had to do it all over again.

[*Balloting.*]

The Speaker: **The alternate delegates have been elected in this order of seniority: Dr. W. W. Babcock, Dr. Gilbert Saltonstall, Dr. John Wellman and Dr. B. M. Harris.** *(Applause)*

XXI—7. PRESIDENT-ELECT

J. M. Wellman, M. D.: Mr. Speaker, may I please ask that the Vice Speaker assume the Chair?

[*The Vice Speaker assumed the Chair.*]

J. M. Wellman, M.D.: It is my distinct honor and pleasure as representative of the Ingham County delegates to place in nomination for President-elect the name of Dr. K. H. Johnson.

Dr. Johnson is a general practitioner who is highly respected by his colleagues and beloved by his patients. He has served in many capacities in our County Society, including the Presidency. He has been a delegate to this House of Delegates for nine years, during which time he has served as Vice Speaker for two years and at the present time is completing his third term as Speaker.

We are all well aware of the very diligent and excellent manner in which he has conducted the proceedings of this House. By virtue of his position he is also a member of The Council and Executive Committee of The Council, to which he has devoted a great deal of time and effort.

Dr. Johnson's appreciation of the problems of organized medicine is very comprehensive, and those problems are close to his heart. We believe he has the qualifications that would make him an outstanding President of this State Medical Society.

Historically I would like to state that the last President from Ingham County was Dr. George Ranney in 1891. I repeat, we are proud to submit the nomination of Dr. Ken Johnson.

The Vice Speaker: Dr. Johnson has been nominated.

J. W. Rice, M.D.: I would like to second the nomination of Dr. Johnson.

The Vice Speaker: Are there further nominations for the office of President-elect?

F. D. Johnson, M.D. [Genesee]: It gives me great pleasure and I consider it a great privilege to place in nomination the name of Dr. Jackson Livesay, of Genesee County.

Able, clear-headed, conscientious, courageous, calm, fair-minded man, who has demonstrated his faithfulness and durability by serving in this House for sixteen years, and who has capably handled both the duties of Vice Speaker and Speaker of this House, he has left the House of Delegates only because he was asked to serve as President of the Genesee County Medical Society. His present term expires in one month.

We know that he will honor us from Genesee County by the services he will render as President-elect. We believe his conduct in this office will do much to heal

the wounds of this Society, and we know he will insist on the democratic conduct of the operation of same.

THE VICE SPEAKER: Dr. Jack Livesay has been nominated for President-elect.

W. S. CARPENTER, M.D.: I think it would be appropriate at this time to ask Dr. Livesay to stand so we can see him. Maybe some do not know him. *(Applause)*

THE VICE SPEAKER: Are there further nominations for President-elect?

L. F. HAYES, M.D.: Mr. Vice Speaker, I move that nominations be closed.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

[*Balloting.*]

THE VICE SPEAKER: The tellers report as follows: The President-elect is Dr. Kenneth H. Johnson.

[*The House arose and applauded.*]

THE VICE SPEAKER: It is the custom to have two or three delegates conduct the President-elect to the rostrum but since he is already here we will let him speak for himself.

SPEAKER JOHNSON: Gentlemen, I would be less than human if I were not deeply proud to be selected as your President-elect. While I did not personally seek this office, I am deeply grateful for those who supported my candidacy.

I accept the office in all humility, and I trust I shall fulfill the responsibilities with the same effort and courage and success that my predecessors have done.

Thank you very much. *(Applause)*

[*The Speaker resumed the Chair.*]

THE SPEAKER: Now I will put on my other hat. I believe it is proper for the Speaker to finish out the session.

XXI—8. SPEAKER OF THE HOUSE OF DELEGATES

L. A. DROLETT, M.D.: Mr. Speaker, I would like to place in nomination the name of a man who has done such an able job as Vice Speaker of this House for the past three years, my very good friend Jim Lightbody, from Wayne County. I think Jim has done an excellent job, and I certainly think he is a marvelous parliamentarian. I know he will conduct the business of this House as it has been done in the past several years.

I nominate Dr. James Lightbody as Speaker of the House.

W. B. MCINTYRE, M.D.: I would like to nominate for Speaker Dr. C. I. Owen. Dr. Owen has held many positions in the State Society. He is well known both at the local, State and national level. I heartily encourage his election as Speaker.

THE SPEAKER: Are there further nominations?

L. F. HAYES, M.D.: I move that nominations be closed.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

[*Balloting.*]

THE SPEAKER: Gentlemen, I should like to introduce to you the next Speaker of the House of Delegates, Dr. Jim Lightbody.

[*The House arose and applauded.*]

THE VICE SPEAKER: I too am a bit overwhelmed, but I do want to express my deep appreciation for this honor.

It was quite a number of years ago that Wayne County had the privilege of having a Speaker, and I am sure quite a number of you remember Pat Ledwidge. We have had a great many very fine Speakers and Vice Speakers in the House of Delegates. I hope I will be able to emulate those men and carry on the fine tradition of Speaker.

I want to express my deep appreciation to Ken Johnson because he has helped me a great deal. He has done a tremendous job in the years that he has been Vice Speaker and Speaker of the House. In spite of the fact that Ken Johnson was given a rousing ovation on being elected President-elect, I think we should give him another ovation for the tremendous job he has done as Vice Speaker and Speaker of the House.

(The House arose and applauded.)

(The Vice Speaker resumed the Chair.)

XXI—9. VICE SPEAKER OF THE HOUSE OF DELEGATES

S. A. FIEGEL, M.D.: It is my distinct honor and privilege to present the name of John W. Rice of Jackson. He is known to most of us. He was a member of this House for the first time some eleven years ago. He was out and then came back again. He has served this House in many capacities. He has been on reference committees, and we all remember the excellent report he gave this morning as Chairman of the Reference Committee on Miscellaneous Business.

He is a Past President of the American Academy of General Practice. He is now a delegate to the Congress of Delegates to the American Academy of General Practice. He is very cognizant of what is going on. He is very civic-minded. He is a past member of the School Board in his home town of Jackson. He is Past President of the Jackson Chamber of Commerce.

I would like to present the name of John W. Rice.

THE VICE SPEAKER: John Rice is nominated.

D. A. BOWMAN, M.D.: I would like to second the nomination of Dr. Rice.

H. A. SCOVILL, M.D.: I wish to place in nomination the name of Dr. Harold Falls of Ann Arbor as Vice Speaker of the House of Delegates. Dr. Falls has served the Society well both in the House of Delegates for several years and on various committees. He has demonstrated his administrative ability and his capacity to conduct the affairs of this Society in a calm and orderly fashion. Dr. Falls' knowledge and deep interest in this Society well qualifies him for this important office.

THE VICE SPEAKER: Dr. Falls has been nominated. Are there further nominations?

R. W. TEED, M.D.: Mr. Vice Speaker, it is a pleasure and honor to second the nomination of Dr. Harold Falls as Vice Speaker.

H. W. PORTER, M.D. [*Jackson*]: I should also like to second the nomination of my friend Dr. Rice.

J. A. FERGUSON: Mr. Vice Speaker, I would like to nominate for this office a man who has impressed all of us with his clear thinking. I would like to nominate Dr. L. F. Hayes, of Gaylord.

THE VICE SPEAKER: Are there further nominations?

F. L. TROOST, M.D.: I move that nominations be closed.

D. A. BOWMAN, M.D.: I would like to second the motion.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

[*Balloting.*]

THE VICE SPEAKER: The tellers have reported. The new Vice Speaker is Dr. Falls. *(Applause)* Will Dr. Falls please come to the rostrum? *(Applause)*

H. F. FALLS, M.D.: I am deeply honored to be elected to this position. I think it has been singularly important that I am honored by having as predecessors the two men who are our Speaker and our Vice Speaker, Dr. Johnson and Dr. Lightbody. They will give me an excellent example as to what I have to strive for in order to do an efficient job for you.

I want to take this opportunity to thank the men who sponsored me and who succeeded in giving me this position. I hope sincerely that as your duly elected representative I may be successful in aiding in the unity of this organization. I feel this deeply, and I want it understood that as your representative I will be here with the intent to serve you to the best of my capacity and ability.

Thank you. *(Applause)*

THE VICE SPEAKER: Is there any other business to come before the House at this time? Are there any further resolutions to be presented? This is your last opportunity.

If there is no further business, we will adjourn until 8 a.m. tomorrow morning.

[*The meeting adjourned at 11:30 p.m.*]

WEDNESDAY MORNING SESSION

September 30, 1959

The meeting reconvened at 8:30 a.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

XVIII—5(d). SPRING SESSION OF MSMS HOUSE OF DELEGATES

We have a supplemental report from the Reference Committee on Rules and Order of Business.

B. P. BROWN, M.D.: Mr. Speaker, the Reference Committee on Rules and Order of Business considered resolution No. 53.

"Whereas, the amount of work required by the House of Delegates at the Annual Session has been gradually increasing, and

"Whereas, the number of meetings of the House of Delegates has been more and more, even extending into four days, and

"Whereas, the work of some of the reference committees has become of such magnitude that time has not allowed thorough discussion and resolution of the problems at hand; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society meet in a one-day session to resolve a portion of its functions the day prior to the meeting of the Michigan Clinical Institute in March of each year, for such work as is deemed necessary."

The Reference Committee agrees with this resolution in principle, but wishes to change the resolution to read as follows:

"RESOLVED: That the House of Delegates of the Michigan State Medical Society meet in a spring session prior to the meeting of the Michigan Clinical Institute in March 1960, at which time consideration can be given to making this session an annual affair."

Mr. Speaker, I move the adoption of the substitute resolution.

E. G. KRIEG, M.D.: Second the motion.

A. D. RUEDEMANN, M.D.: Mr. Speaker, I would like to bring out the point that we have gathered here approximately 125 to 175 very valuable medical men who are sitting around listening to resolutions. Yesterday we had a luncheon and a cocktail party, and the certification of candidates, and so on, for Directors of Blue Shield-Blue Cross, which I think is all out of proportion to what it proposes to do.

I would like to recommend that we use that time for our committtes here, and do away with the necessity of a spring meeting. I think all the work that was done yesterday on Blue Shield-Blue Cross from luncheon on could have taken one hour. If we don't need two or three days to certify the men who come, and to elect our Speaker and President, we certainly don't need all that time to certify the Directors of Blue Shield and Blue Cross.

W. C. BEETS, M.D.: Mr. Speaker, I think for 150 men to get together one day in the spring is a rather costly business, too. I agree with Dr. Reudemann that perhaps we can step up the efficiency. I am definitely opposed to having a spring meeting.

J. D. MILLER, M.D.: How much would it cost?

W. C. BEETS, M.D.: $100 gross a day for surgeons, for example, is quite a little expense, plus traveling and meals.

W. B. MCINTYRE, M.D.: Could the meeting (provided the resolution is approved) be considered a regular meeting? In other words, would it be a regular meeting at which business would be taken care of? I think that point should be clarified.

THE SPEAKER: The House has the privilege of deciding when it will meet. I would consider that to be a regular meeting. It would not be an annual meeting but would be a regular meeting in the sense that it would not be a special meeting. In other words, it would not be called to consider some specific bit of business.

W. C. BEETS, M.D.: Mr. Speaker, getting back to the subject of economics, I forgot to say that it may be very costly to the Society's treasury, too. It costs money to hold this meeting, doesn't it?

THE SPEAKER: There is no doubt that it costs money to have a meeting.

J. W. RICE, M.D.: I am very much impressed by the people who desire to work. I don't feel I want to work every day in the year. There is one thing to be said for this substitute resolution. We have been complaining about not knowing what is going on and what is being done in some of our committees and Blue Shield. By having a meeting in the spring we would have more current reports and could handle more current business.

W. W. BABCOCK, M.D. [Wayne]: Mr. Speaker, may I have the privilege of the floor?

THE SPEAKER: You may.

W. W. BABCOCK, M.D.: If this resolution were passed, it would have to come as an amendment to the Constitution and Bylaws; is that true?

THE SPEAKER: No.

W. W. BABCOCK, M.D.: Then I am mistaken. The Speaker has a right to call a special meeting if the occasion should so demand.

THE SPEAKER: The only difference, Dr. Babcock, as a result of twenty-five members of the House or a two-thirds vote of The Council, is that a special meeting is required to consider only one particular item of business. The idea of having a spring meeting next year, as I understand it (and I think that is what the Reference Committee had in mind), would be to evaluate and see whether it would accomplish anything if we had such a meeting. We could try it and see. That is my opinion. It would be a regular meeting. I think if you will consult the Bylaws you will find that the House may decide at any time when it will meet.

M. A. DARLING, M.D.: Mr. Speaker, may I have the privilege of the floor?

THE SPEAKER: You may, Dr. Darling.

M. A. DARLING, M.D.: One of the criticisms that comes up constantly is the delay of business. If you go back over the proceedings of the House of Delegates for several years you will find that business has been referred to The Council because there was not sufficient time to discuss it at the House of Delegates meeting.

It would seem to me that the business of this House could be materially expedited with a semiannual meeting, if necessary, rather than an annual meeting. At the end of each session of the House of Delegates, there is a paucity of men left, particularly if we have an extra session and the meeting is held over.

Late in the evening there is not a full representation of the delegates of the House. They are in reference committee meetings and other places. It would seem to me, as the Speaker suggested, to be well worth while to at least try it out for one or two meetings. Then, instead of waiting twelve months to have a decision made, the decision could be made at the end of six months.

E. C. BAUMGARTEN, M.D.: Mr. Speaker, does this resolution refer particularly to just one meeting, or would it set a precedent from now on?

THE SPEAKER: The Reference Committee's resolution is to the effect that it be only one meeting and then a decision would be made, in which case I think you might very well require a change in the Bylaws if you were going to do it that way. This particular resolution calls for one such meeting.

G. S. WILSON, M.D.: I read an article recently on

"Purposeful Inactivity." Many of the things we discuss here at our annual meeting are not things that can be suddenly and radically changed, no matter how many meetings we have.

With all due respect to this House, I don't think much more would be accomplished by having an extra meeting. I think one day would only serve to let us get acquainted with one another.

F. L. Troost, M.D.: I don't believe we could legally hold such a meeting. Section 4, Chapter 9 of the Bylaws states:

"The House of Delegates shall meet annually at the time and place of the meeting of this State Society as a whole, as when it meets in general session, and may hold such number of meetings as the House may determine or its business require, recessing from day to day as may be necessary to complete its business and specifying its own time for the holding of its meetings. The House of Delegates may also be called into session at any time by the Speaker upon a two-thirds vote of The Council, or on petition of twenty-five per cent of the delegates. The purpose of such special sessions shall be stated in the notice to call."

I agree that it takes an amendment to the Bylaws to be able to hold such a meeting next March.

The Speaker: I suppose this is a matter of interpretation. When I read it I thought it meant we could have another meeting. When you read it, however, I'm not so sure.

The Chair will rule that this resolution is out of order. I think if you want a meeting of this type you will have to have a petition of 25 per cent of the delegates or a two-thirds vote of The Council. I will make that ruling and will be very glad to have a vote on it.

E. G. Krieg, M.D.: I would like to appeal from the ruling, Mr. Speaker. The effect of passing this resolution would be 100 per cent approval by this House, not 25 per cent approval.

J. A. Witter, M.D. [Wayne]: I would like to enter a plea to improve the time we spend in the House, rather than holding another meeting. I feel very much as Dr. Reudemann does—that our Tuesday afternoon could probably be better utilized. It does not seem we would actually have to devote an entire afternoon to hearing the report of the Blue Shield group. This House of Delegates could adjourn as the House of Delegates and immediately convene as the corporate body of Blue Shield, and have a meeting which perhaps might take half an hour. The election could be carried on by some other device, even by mail or by a more expedient method than having each man stand up to receive a ballot. The House could then reconvene and go on with its business.

As we are well aware, we have gradually extended our meetings, starting Sunday evening, tapering over into Wednesday, missing scientific meetings. I think we should be able to improve our techniques somehow.

The Speaker: The Chair has ruled this resolution out of order. Is there an appeal from the ruling of the Chair?

D. I. Sugar, M.D.: I think it would expedite matters greatly if Blue Shield would send us a financial statement and their speeches, and then we could read them. If they feel called upon to give the speeches, we can give them a room and they can speak to each other. *(Laughter)*

The Speaker: To get back to the ruling of the Chair, I think the only way this could be handled would be to have the resolution taken outside, and if you can get 25 per cent of the delegates here to sign it we will talk about it some more; otherwise I rule it out of order. *(Applause)*

I would only like to comment that after all, gentlemen, there has been a great deal of talk about what Blue Shield has done and hasn't done, and I think simply to cut them off without a drop of water is rather rough. That is just my opinion.

J. B. Blodgett, M.D.: Mr. Speaker, a point of personal privilege.

The Speaker: You have the floor.

J. B. Blodgett, M.D.: Gentlemen of the House, certain misconceptions may have arisen regarding the objectives of the delegates from Wayne, where nearly half of the service of the Blue Shield subscribers is provided. To clarify this situation to this House, I would like to read to you a statement that has been agreed to by the caucus of the Wayne delegates. This is the statement with which we agree:

"All of us believe in the concept of prepaid medical care. We also believe in the concept of medical service for certain low income groups, and are willing to give up certain prerogatives to accomplish this type of care for our patients.

"Believing in the service principle, we recognize the need for participation by as many doctors as possible. However, we believe that high participation should be accomplished by producing a type of contract which is so widely approved and flexible that it receives wide voluntary participation.

"We do not believe that participation should be obtained by any form of coercion, no matter how subtle, nor through a simple expedient of a fee schedule.

"It is to obtain a contract in which we can all participate that we are here today. We are here to exchange ideas with all the doctors of Michigan and to make necessary modifications and enlargements so that a truly satisfactory contract can be arrived at by a democratic process of continuing evolution." *(Applause)*

XVIII—13. ON MEDICAL SERVICE AND PREPAYMENT INSURANCE

D. N. Sweeny, M.D.: Mr. Speaker, your Reference Committee on Medical Service and Prepayment Insurance is prepared to present a complete report at this time. This Reference Committee is sorry to have been the cause of the inconvenience necessitating an added session of the House of Delegates, but the mass of information presented to it for review and the importance of unhurried proper consideration of these data have prolonged our deliberations.

First, I would like to thank the Speaker and those with whom he consulted for providing me, as Chairman of this Reference Committee, with Committeemen who are not only well versed in background material on prepayment problems but who were also untiring in their invaluable and wise assistance during our many meetings. I express my thanks to these men: Sidney Adler, M.D., Herbert W. Harris, M.D., John R. Heidenreich, M.D., Robert L. Novy, M.D., Don Marshall, M.D., Clarence Owen, M.D., and Don W. Thorup, M.D.

I would also like to express my appreciation to several gentlemen who were present by invitation for information. They are: Dr. Max L. Lichter, Dr. G. Thomas McKean, President of Michigan Medical Service; Mr. Gordon Goodrich and his staff of the Michigan Medical Service, Mr. William S. McNary, of Michigan Blue Cross, Mr. Lester P. Dodd, Counsel for the Michigan State Medical Society, Mr. Frederick Buesser, Counsel for the Wayne County Medical Society.

I would be remiss at this point if I failed to thank the members of Dr. D. Bruce Wiley's staff of this Society who cheerfully worked not only during the day but late last night typing, mimeographing, and helping me with my spelling. Most especially our thanks go to Miss Vesta Bracy, Mr. Richard Philleo and Mr. Herbert Auer.

This Reference Committee was presented with fifteen resolutions, two reports of special committees, and one report of a permanent standing committee, for consideration. This report will be presented by sections arrived at by arbitrarily grouping resolutions on related subjects.

The Reference Committee in its open sessions allowed all interested members of this Society and the several

invited guests mentioned above to participate in the discussions.

The first item of business had to do with a group of resolutions that concerned themselves with (1) income ceilings for service contracts, and (2) total family income versus wage-earner income as a basis for this service. These original resolutions will be read without comment but for clarity and completeness of this report.

XVIII—13(a). MODIFICATION OF M-75 TO $5000, (b). MODIFICATION OF M-75 INCOME LIMIT TO $6500, (c). MMS: FAMILY INCOME LIMIT DETERMINATION, (d). MMS: DETERMINING TOTAL ANNUAL FAMILY INCOME

[*Dr. Sweeny read resolutions Nos. 4, 5, 16 and 42 as originally presented.*]

D. N. Sweeny, M.D. [*continuing*]: This Reference Committee offers substitute resolution "A," of which you have a mimeographed copy and which I shall read. This resolution is offered as a substitute for the four resolutions that have just been read, namely, resolutions No. 4, 5, 16 and 42.

This is the substitute resolution "A":

"Whereas, it appears that the income level for service contracts as established by the MSMS two years ago was unrealistic in two directions—(1) the method of determination of income, and (2) the maximum income level to be covered by service, and

"Whereas, for two years the MSMS has been committed to its members and to the public by this action, and

"Whereas, the medical profession must honor its commitments, and

"Whereas, any change will require re-evaluation of fee schedules, actuarial contract adjustments, approval of the Insurance Commissioner of the State of Michigan, and public acceptance; therefore, be it

"RESOLVED: That the basis for service contracts be determined on total family income, and that any preceding action to the contrary is hereby rescinded; and be it further

"RESOLVED: That as soon as feasible, the maximum total family income for service contracts be established at $6,500; and be it further

"RESOLVED: That the present status of service contracts, including the sale of existing contracts, be continued until such time as these changes are satisfactorily implemented; and be it further

"RESOLVED: That the Board of Directors of Michigan Medical Service be informed of these changes in policy, and be requested to proceed with their implementation forthwith."

Mr. Speaker, I understand there will be a minority report on this majority report.

Mr. Speaker, I move the adoption of the substitute resolution.

W. C. Beets, M.D.: Second the motion.

R. L. Novy, M.D.: I have signed the report and I am a member of the Reference Committee. I wish to say something at this time.

I understand also that there is to be a substitute motion made for this motion of the Reference Committee. That came to my notice at ten minutes after eight this morning. I have just succeeded in having a copy of it and reading it. Last night at one o'clock there was no such thing in existence, and to the best of my knowledge it had not been discussed by the Reference Committee.

I am therefore commenting on the surprise setup with which we are confronted.

J. W. Rice, M.D.: Mr. Speaker, may I ask for a point of information? This substitute resolution embodies two distinct features. One is the total family income, and the other is the ceiling on policies to be sold.

May they be voted upon separately?

The Speaker: If there is no objection, it will be so ordered.

J. W. Rice, M.D.: Am I in order to make a motion that because of the serious nature and the great division of opinion on this matter, any voting that is done on the substitute resolution be done by ballot? May I make that motion now?

R. R. Cooper, M.D.: I object to a vote by ballot, and move that we present it to the House for decision.

The Speaker: All right. This will be a simple majority. The motion is that we vote by ballot.

R. W. Teed, M.D.: I second it.

The Speaker: All those in favor, say "aye"; opposed, "no." We will have a show of hands.

The vote is 40 for and 70 opposed. The motion is lost.

F. B. Levagood, M.D.: I would like to rise to a point of order, Mr. Speaker. I question the validity of a minority report when the Reference Committee has stated through one of the senior members that he did not even know of its existence until this morning.

The Speaker: The ruling of the Chair is that the Reference Committee had adjourned, and therefore the so-called minority report is out of order. He certainly has the privilege of the floor to speak as an individual. *(Applause)*

Now, I believe the only thing we have done so far has been to divide this resolution into two resolutions, the first two Resolveds in one motion and the second two Resolveds in another.

J. B. Blodgett, M.D.: Mr. Speaker, we have moved to divide the question. I move that we take action on the first "Resolved" at this time, and then we can discuss this portion as the first "Resolved."

[*The motion was severally seconded.*]

The Speaker: It is moved and seconded that we take up the first "Resolved," which is that the basis for service contracts be determined on total family income, and that any preceding action to the contrary is hereby rescinded.

Is there discussion on this portion?

G. S. Wilson, M.D.: Personally, I like that first portion, and I would like to know how it would be expedited if we voted on it. It is a matter of practicality, not a matter of being for or against. This would require expert opinion.

The Speaker: The only way I can see that this could be handled under the circumstances would be to decide whether or not you are going to accept or reject this particular portion. I would say that if you accept it, it would become law and would go into effect. If you reject it, then I would think it would be defeated.

The question is whether or not you come up with two substitute resolutions or whether you come up with one embodying both of them. That is the problem at hand.

R. L. Novy, M.D.: To answer the question (and I don't pose as an expert), it is necessary to look at the third "Resolved": "That the present status of service contracts including the sale of existing contracts be continued until such time as these changes are satisfactorily implemented."

The Speaker: As far as I am concerned, gentlemen, all you have done is to consider these two points separately. If you approve both of them, then I would think they could be incorporated into one resolution. If you disapprove, then you will end up with only one part of the resolution.

Are you ready for the question? The question is called for. All those in favor, say "aye"; all those opposed, "no."

J. W. Rice, M.D.: What are we voting on?

The Speaker: The motion is to approve the first "Resolved," which is "That the basis for service contracts be determined on total family income and that any preceding action to the contrary is hereby rescinded."

Dr. Novy called attention to the fact that the third "Resolved" says: "That the present status of service contracts including the sale of existing contracts be continued until such time as these changes are satisfactorily implemented." However, you are not voting

on this last "Resolved." You are voting only on the first "Resolved" because you asked for a split.

J. W. Rice, M.D.: That is correct, but I have heard no discussion of the first "Resolved."

The Speaker: The question was called for.

All those in favor, say "aye"; opposed, "no." The motion is carried.

H. W. Harris, M.D.: Mr. Speaker, I may have been denied the podium but I am still a member of this body, as far as I know, and I would suggest that maybe the things that are in our report would be of interest to this House. I think that should be decided now.

The Speaker: Dr. Harris, you have the privilege of the floor, I believe, if you want to speak as an individual. Please do so.

H. W. Harris, M.D.: Mr. Speaker, I am no longer on the Reference Committee; is that right?

Gentlemen, the innuendo has been inserted here that this was something done behind the backs of this Reference Committee. Perhaps the method by which this was done was wrong. I wouldn't be here to say that it was not wrong.

To begin with, I would like to say that the deliberations of this Reference Committee were carried on in the most quiet, dignified and gentlemanly manner due to its Chairman and the way in which he handled the business.

However, throughout our deliberations of this substitute resolution there was constant disagreement on some of the parts of this resolution. This was discussed for half a day in our many meetings, and it was indicated that had we stayed there last night and had brought it up, we wouldn't have been ruled out of order this morning.

To set the matter straight, and since we have more or less been pointed at, I would like to say that when we adjourned at 2 o'clock this morning I said, "Although the time is late, I would like to further consider this thing, which to me is unsettled." I hope the Chairman will bear me out in that.

I was told that the matter was settled and we agreed to it, and it was late and we ought to be in bed. I couldn't deny that. And so the meeting broke up.

However, due to the fact that three of us happen to be on the same floor in this hotel and walked down the hall together—I had a room at the end of the hall, and we walked in and talked further about this matter.

It should be no surprise to Dr. Novy or anybody else on the Reference Committee to know that I was unhappy about this resolution. It went through our total discussion, and where the thing was put on paper, I have explained, was in my room. Perhaps I was more responsible for it than anybody else.

What we have been pleased to call a majority report of this Reference Committee, I would like to point out to you, is signed by four members, which constitutes half of the Reference Committee. So, although the minority comes from those who spoke last, I guess, without further I would like to read, if I may—

J. W. Rice, M.D.: Mr. Speaker, is there a rule that a minority report is not acceptable? I ask you, Mr. Speaker, to rule on this.

The Speaker: My ruling is that as long as Dr. Harris is presenting this as an individual, he is all right. I don't think any reference should be made to "minority" any longer. We will leave it up to the men who wish to consider themselves a minority or not, in order to discuss the matter.

H. W. Harris, M.D.: Then may I be privileged to read what we said:

"We have carefully studied and indeed had a part in writing the above substitute resolution which was read by your Reference Committee Chairman—"

The Speaker: Just say "I," not "we," Dr. Harris. You are presenting this as a substitute resolution.

H. W. Harris, M.D.: My name is Harris, from Ingham. *(Laughter)*

"I believe the acceptance of this Reference Committee's report may ultimately be advisable—." Maybe I had better start over again.

"I have carefully studied and indeed had a part in writing the above substitute resolution. I believe the acceptance of this Reference Committee's report may ultimately be advisable; but in view of the pending study by a group from the National Blue Shield Medical Care Plans, and in view of recurrent study of health insurance presently being conducted by the University of Michigan, and in view of the drastic changes involved in altering the contract already being sold, and the possible repercussions affecting this sale, therefore I propose that no action be taken on this substitute resolution 'A' as submitted by the Reference Committee, until the results of these studies are available and may be used to further clarify this subject."

The Speaker: Are you making that in the form of a motion?

H. W. Harris, M.D.: I move this as an amendment.

The Speaker: It would be a new motion.

H. W. Harris, M.D.: I then move this as a substitute motion, Mr. Speaker.

R. R. Cooper, M.D.: A point of order, Mr. Speaker. I don't want to create a fight. That is the last thing I want to do. However, I was under the impression that there is no motion on the floor to make a substitute for. I believe we have passed on the first "Resolved."

The Speaker: The Chairman of the Reference Committee made a motion that this resolution be accepted, and it was seconded by Dr. Novy, who said he was a member of the Reference Committee. The thing we did vote on was the first "Resolved."

C. W. Colwell, M.D. [Genesee]: I think we have already passed that resolution.

The Speaker: You passed part 1 to be included in the resolution. You asked that it be considered twice, in separate motions.

C. W. Colwell, M.D.: We voted on it and passed it.

The Speaker: It is the ruling of the Chair that inasmuch as the House has passed the first part, that this resolution of Dr. Harris', which is in effect to postpone action, would only involve part 2 of the "Resolved."

C. W. Colwell, M.D.: Then the first part was passed?

The Speaker: That is correct.

J. M. Wellman, M.D.: I would like to support the substitute resolution made by Dr. Harris.

R. W. Teed, M.D.: Mr. Speaker, I would like to speak to the substitute motion.

The original resolution presented decreases the limit for service contracts from $7,500 to $6,500. This, I believe, is a step backward and should be considered very carefully.

I will not take the time of the House to go into all the discussions that were held in the House of Delegates and in the Reference Committee on this subject, both in 1957 and 1958. Those are matters of record and can be read.

However, I would point out that the subject of limits was very, very carefully considered, and it was concluded that the limits as they were set by the House of Delegates at that time adequately covered a proportion of approximately 80 to 85 per cent of the population of the State of Michigan in a similar way that the original $2,500 limit policy covered a similar percentage back in 1941.

Now, I don't believe we are talking about a principle here, because the resolution as stated accepts the principle of some income liability. We are therefore discussing only the amount.

There has been some intimation by some members of the House that these limits were arrived at in a devious manner, and were foisted upon the profession of Michigan by certain people who had some sort of axe to grind. I don't believe that is true. I think this was arrived at by a laborious, time-consuming study, and I believe the study was adequate.

There has also been the intimation that this was not done on the basis of reality. I believe this was done in response to a very definite public demand. If we say that we were not pressured into this, again we do not tell the truth. We were.

If you will go back to 1938 and 1939, when this was originally set up, we were under pressure by the Roosevelt Administration and the socializers in that Administration, and the Wagner-Murray-Dingell bill was a very definite threat; in fact, that was the thing that brought this out in the beginning.

Later, in the Truman Administration we were under pressure from Oscar Ewing, and we made further improvements in the contract. Still later we were under pressure from the standpoint of unions.

What does all this mean? It means simply that the public is demanding service coverage at a price that they can afford to pay, and under conditions which will allow them to budget this cost over a period of time, and not be saddled with an excessive, unexpected fee at the time illness strikes.

I do not believe we can sit here as a House of Delegates and arrive at conclusions which do not take into account the public demand and public interest. To say that this was not established in response to a definite public demand is certainly unrealistic.

If we believe that the politicians in Washington who are supporting the Forand type legislation are doing this of their own accord for political reasons, I think we are fooling ourselves.

If we think that the union—the UAW, to be specific—is not setting up CHA for its own selfish interests, I believe we are deluding ourselves.

These people are merely expressing a public demand. In August, I attended the Public Relations Institute of the AMA in Chicago, and I listened to the Vice President in charge of group insurance for the New York Life Insurance Company make the statement that the public is demanding service coverage at a price it can afford to pay. I don't believe anybody would accuse the New York Life Insurance Company of being a socialistic organization.

This I believe is something that the public demands and something they are going to get. If we don't provide it, someone else will.

The attacks that have been made against the Michigan Medical Service over the last year or more have caused not only a serious division in the Michigan State Medical Society but have also raised grave doubts on the part of the public as to whether our contracts will be honored. A clipping on the bulletin board is illustrative of this.

I have heard instances where salesmen for commercial insurance carriers have quoted this split as authority for the fact that Blue Shield was going under, and that if people want health insurance they had better buy it commercially.

I feel we are going backward in taking this step, and I feel that to keep up with the public demand and provide service the public will accept, we should accept the substitute resolution.

Thank you. *(Applause)*

F. B. Levagood, M.D.: I might remind you gentlemen that Wayne did not introduce the resolution you are discussing at the present time. This was introduced by one of the most competent sub-chairmen I have ever seen on this platform—Dr. Rice. He introduced the resolution for the $6,500 level.

Gentlemen, we do believe in service, and Dr. Blodgett gave a very brief résumé this morning of what the constituents of the Wayne County delegates usually do. They do believe in Blue Shield, and they do believe in service contracts. There is some difference of opinion regarding the level which they believe in. They are not willing to go along with high-level contracts, and I don't think most of you are, either.

I have been shocked, as many of you here have been, by the attacks that have been made on people who are trying to do things by a normal democratic process. They are not getting into attacks on Blue Shield. People have objected to the way things have been done. If Wayne County, with 50 per cent approximately (or a little less) of all the contracts that are serviced—if you add Oakland and Genesee, 82 per cent of the new M-75 service, the people are a little unhappy.

I don't think there is any danger of Blue Shield going under; but if you continue this wrangle, if you continue to ignore this type of thing, then you will be crushing the very individual doing 50 to 80 per cent of the work. Gentlemen, if you have read very much history you know that you can't do that with a very small minority. It sooner or later crops up.

We are pleading with you. We came in here with a resolution for $5,000, which is what most of our people in Wayne County wanted. We are willing to accept this $6,500 figure. But Dr. Stubbs, Dr. Carson and Mr. Castellucci came in here yesterday with a recommendation—and I don't think anybody in this room debates that these men are international authorities. They came in here with a recommendation of a $6,000 level, not a $6,500 level, not a $7,500 level, and not a $5,000 level. They came in with a figure of $6,000. recommending that this be controlled at the local level as far as the fees were concerned.

So, I think you should give a lot of consideration to this matter, and certainly out of this group of men there can be some reasonable compromise so that people will be happy. You have got to have a large participation of doctors in the State, and no one group can stand up and dictate the fees. If it does, the whole thing is going to fail, as the doctor just said.

D. I. Sugar, M.D.: We always hear, like small boys, that government or politics is going to do something to us. There is a new feeling abroad in the land, and I think medicine should take a stand on principle. You have big business having a showdown with labor. I am not worried about labor if we stand for principle. Let CHA or anybody start anything they want to.

I just want to say one thing. They say M-75 came as the response to a demand from the public. I dispute that. I believe in Blue Shield. The people want medical insurance.

Last year we had a deficit of 2 million dollars in Blue Shield. This year we have a deficit of 3 million dollars. M-75 was started because Blue Shield was going broke, according to their own financial statements, so they advised this procedure to give the public much more, and to charge them much more so they could get bigger fees. I don't think the public wanted it. I think Blue Shield wanted it.

As an accompanying gimmick, they have raised the fees to the doctor. What kind of a business organization increases its expenditures when its income is going down?

I spoke to two Directors of Blue Shield, and they admitted that that was part of the parcel, in order to sell it, to increase the doctor's fees.

I differ with Dr. Teed. I don't think it was put in because of pressure in Washington or labor or the legislature. I think it was put in as an expedient to keep Blue Shield from going broke.

Just one more thing. I believe in Blue Shield. I believe the public should be served first, but let's settle these things on principle and let's not be like small boys and think this is something we have got to do. Whatever the figure is that this group determines, I will go along with it—but I don't want it to be established under any misrepresentation.

J. W. Rice, M.D.: I would like to request the Speaker to put a three-minute time limit on individual debate on this motion.

The Speaker: That is something the House will have to vote on.

E. G. Krieg, M.D.: I so move.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

J. W. Rice, M.D.: Now I can't say much. *(Laughter)*

Gentlemen, I think we all came to this session hoping that we would be able to accomplish results on the question we have brought up. I know the Chairman of the Reference Committee has expressed his desire that we settle it at this session. I certainly hope it is settled, and I am sure every one of you would like to stop this bickering that we are having.

I think the Reference Committee could make a compromise resolution and most of us would go along with it. However, we heard yesterday about the financial difficulties of Blue Shield; you are all cognizant of that. The resolution that was presented this morning changes my resolution from an individual subscriber to a family subscriber. The only reason I am going to object to the $6,500 ceiling for the family is this:

I talked to the union organizer in Jackson because I wanted to find out what their attitude would be toward this. He said they have many married couples working in Jackson, and they sold two new contracts there this last year, and he was afraid that if there were a ceiling set on family incomes both of these plans would cancel their contracts because there would not be adequate coverage for family income, husband and wife.

I suggested we set an individual income of $6,500. When you set a family income of $6,500, you eliminate that family because certainly the husband is going to make between $4,000 and $5,000 and the wife should be making at least $3,000 or more. I think most of the families would be eliminated.

In an effort to compromise, I would like to suggest that the motion be amended to "That this House of Delegates—"

THE SPEAKER: Excuse me, Dr. Rice. We are talking now, you will remember, about Dr. Harris' motion, which was to postpone action until we got the results from the national.

J. W. RICE, M.D.: May I make my amendment to the substitute resolution offered by Dr. Sweeny?

THE SPEAKER: Not at this moment.

Let me think this thing through. Dr. Harris' motion in effect is the same type of motion as laying this on the table, except that as soon as you put a definite time into it it can be debated; and that is what we are actually debating at this particular moment.

F. L. TROOST, M.D.: Mr. Speaker, it is with deep regret that I have listened to this debate.

I would like to read a little excerpt from the *Journal of the American Medical Association,* dated September 12:

"Who Sets A Doctor's Fees?

" 'Not the individual physician,' says Dr. Lewis Overton. President of the New Mexico Medical Society. 'Whether you will admit it or not,' he told the assembled physicians at the Denver Regional Conference on Insurance and Prepayment Plans several weeks ago, 'the community in which you practice pretty much governs what your fees will be.'

"Dr. Overton made the observation during a discussion of relative value studies. He said, 'We must not feel that by accepting relative value schedules we are giving away a prerogative exclusively our own.' "

We hear so much about, "Nobody is going to tell *me* what to charge!" This is what Dr. Overton said. My regret comes from the fact that I must come to one of these meetings and hear nothing but dollars. After all, I am a doctor, such as I am. My services are available to people whether they have money or not. I am not out after the last dollar I can get out of them, and I think each one of us doctors should bear that in mind —that we are doctors first and business men second. *(Applause)*

R. L. NOVY, M.D.: I would like to call attention to something that we are unnecessarily concerned with, I believe, in being misunderstood.

The substitute resolution that has been presented is a delaying tactic. That is true. There may be virtue in it. So also is there a delaying tactic in this $6,500 "Resolved." Before you vote, may I call your attention to the fact that this House many years ago was up against a similar dilemma in which a resolution was brought in that Michigan Medical Service must divorce itself absolutely from Blue Cross, in every respect.

To that motion, which was ready to go through at that time because of the feeling present, Dr. Henry Luce made an addition, "as soon as it is actuarily sound."

That motion still stands on the books—that we must divorce ourselves, lock, stock and barrel, from Blue Cross as soon as it becomes actuarily sound to do so. That motion was passed. It is on the books.

Here also is a statement which, depending upon the attitude of this group, is not a mandatory thing. Read it. ". . . that as soon as feasible." Gentlemen, when is "feasible"? That is for you to decide.

"The maximum total family income for service contracts be established at $6,500." That does not mean it is going to be done today, unless you say so. When is "feasible"? That is for you to decide. This is put in here so that no hasty action will be taken and so you will be allowed to do just what is asked here, namely, delay.

As it stands, it carries with it—and it was understood and discussed at the Reference Committee meeting—that that was the purpose of it, and that it did not mean it would be made mandatory now. It meant "feasible" from the point of view of the consent and willingness of every one of you present.

THE SPEAKER: We are discussing Dr. Harris' motion.

D. W. THORUP, M.D.: With regard to the substitute motion, as it is now called, and the way in which it was arrived at, I believe the members of the Reference Committee will bear me out when I say that the Chairman of this Reference Committee requested us to convene this morning to review the written report at a certain hour, and if all of the members had been present at that hour they would have seen this report sooner than the time it was stated. That is an aside.

One of the reasons this substitute resolution was presented is that it was felt, and was discussed in the Reference Committee meeting, and was said in the open hearings, that one of the ways of arriving at a figure, whatever that figure may be—$5,000 or $6,500 or $7,500 or $10,000, and some plans have $10,000 service income limits—whatever figure is set, the question of what proportion or what segment of the population you choose to cover, what percentage of the people you want to cover with service benefits, we think is an important point, and one which may well be brought out by the studies by the National Blue Shield people and by the study that is being made at the University of Michigan.

THE SPEAKER: Are you ready for the question? The vote is on the substitute motion, which would delay action until reports are back from the National Blue Shield and the group at the University of Michigan.

J. B. BLODGETT, M.D.: The second "Resolved."

THE SPEAKER: This is in relation to the second "Resolved"; excuse me.

R. W. TEED, M.D.: I have a question. When we vote on the second "Resolved," does it also include the third and fourth "Resolveds"?

THE SPEAKER: I thought we would take care of this first. Your Reference Committee has separated the "Resolved" portions and I would say we have to act on them separately.

R. L. NOVY, M.D.: We are voting on Dr. Harris' resolution.

THE SPEAKER: Dr. Harris, will you read your substitute motion again, please?

H. W. HARRIS, M.D.: "In view of the pending study by a group of National Blue Shield Medical Care Plans, and in view of a current study of health insurance presently being conducted at the University of Michigan, and in view of the drastic changes involved in altering

the contracts already being sold, and the possible repercussion affecting their sale, therefore **I propose that no action be taken on substitute resolution "A," submitted by the Reference Committee, until the results of these studies are available and may be used to further clarify the subject."**

C. I. Owen, M.D.: Mr. Speaker, that is out of order. We are voting on the second "Resolved."

The Speaker: No, we are not, Dr. Owen. This is a substitute motion for the second "Resolved."

C. I. Owen, M.D.: He doesn't say that. He says "resolution 'A.'"

The Speaker: It is practically the same thing. All right, you can change it. **It is the second "Resolved" in resolution "A."**

H. W. Harris, M.D.: **That is correct.**

The Speaker: Those in favor, say "aye"; opposed, "no."

The "no's" have it, 73 to 48.

Now we are ready to consider the second "Resolved" in resolution "A." The motion is to approve.

J. W. Rice, M.D.: I have another three minutes, Mr. Speaker.

The amendment to the Chairman's substitute resolution that I am going to make is in an effort to keep the families, in which both husband and wife are working, in the service contract of Blue Shield.

I think you all understand that if we set a ceiling limit of $6,500 when the husband and wife are both working, you will automatically eliminate that family from holding a service contract of that type. I think a lot of us want to keep those families in.

This is my motion: **"That this House of Delegates directs the Executive Board of Michigan Medical Service to not sell medical service policies with guaranteed fee for service to any family with income above $7,500."**

That is just a difference of $1,000, but I think it will keep in about 75 per cent of the families who might be eliminated with the $6,500 level.

The Speaker: The Chair would like to know whether this is a substitute resolution to "Resolved" No. 2, or whether it is an addition in the form of an amendment. I don't quite understand it, myself.

H. W. Harris, M.D.: My interpretation—

The Speaker: In other words, if this is passed does it abrogate "Resolved" No. 2, or is it meant to simply amend?

H. W. Harris, M.D.: My interpretation of the substitute "Resolved" No. 2, which states "that as soon as possible the maximum total family income for service contracts be established at $6,500"—a family is a family, but you can have both husband and wife working, or you can have an individual subscriber working. If the individual subscriber is working, he is under the $6,500 ceiling. If both husband wife are working, then you have a $7,500 limit.

The Speaker: Just to be sure we understand it, you are putting this in as an amendment rather than a substitute motion?

H. W. Harris, M.D.: That is correct.

C. W. Colwell, M.D.: Did we not settle the family income plan? If we have settled it, it is out of order to talk about it any more. I think the resolution was passed that the family income be rescinded. About an hour ago we voted on that and passed it. If we did, we cannot talk about it again unless we pass a motion to reconsider it. Any amendment having to do with family income would be out of order.

The Speaker: In which case "Resolved" No. 2 then is also out of order, because this definitely sets the level.

C. W. Colwell, M.D.: I thought the first "Resolved" was that family income was settled, and the second was the level. We are back to the level only, and not the family income.

The Speaker: If I read it correctly, the second "Resolved" states "that as soon as feasible the maximum total family income for service contracts be established at $6,500."

C. W. Colwell, M.D.: The first "Resolved" that we voted on and passed was "that the basis for service contracts be determined on total family income, and that any preceding action to the contrary is hereby rescinded." That is what we passed.

The Speaker: I don't deny that fact, but there is a motion before the House on "Resolved" No. 2.

C. W. Colwell, M.D.: Which has to do with whether that family income will be $6,500 or $5,000 or whatever it might be.

R. L. Novy, M.D.: We have not taken up anything as to what level of family income will be decided upon. We have that now before us.

The motion that was made is to the effect that if husband and wife are working, then we will allow a $7,500 income; but if the husband alone is working, we will allow only a $6,500 income. Am I correct?

J. W. Rice, M.D.: That is correct.

R. L. Novy, M.D.: The maker of the motion agrees that I am correct. That is why I say there is misunderstanding, and I went over and spoke to the maker of the motion and I think he is in agreement. Will you say so?

J. W. Rice, M.D.: I agree with you entirely.

R. L. Novy, M.D.: When this problem came up I had occasion to look into it a little bit. When husband and wife are working, the usual picture is a childless family, or almost so. Particularly and specifically I got hold of the figures from the Board of Education in Detroit which show that on the order of 70 per cent of their teachers (I think it is even higher than that, but I will understate it) are married. Their figures are very explicit. They can tell you how many divorcees are teaching, how many widows are teaching, how many married women are teaching. Of the teachers in Detroit, 70-odd per cent are working and are married and living with their spouses.

This means, then, that every schoolteacher in Detroit whose income is in the neighborhood of $5,500 as an average, to $6,000, has a husband who is working; but she hasn't a child because she wouldn't be teaching school if she had. They are both working. Their total income, even if he is working at the Ford plant, where the average is close to $5,000, is a total of $10,000 or better.

That isn't the kind of family we want to give charity to or special consideration to. We want to give consideration to the family in which there are seven kids and the mother has to stay home and can't work. We don't want to give charity to the family that has a double setup. *(Applause)*

R. L. Novy, M.D.: I call for the question.

The Speaker: Dr. Falls, I am perfectly willing to do so if it is the wish of this House; but, after all, the Reference Committee has been going through this business for two or three days, and it seems to me the time for decision has come. If it is the wish of this House—raise your hands and we will see.

J. J. Coury, M.D.: I respect Dr. Novy, but I would like to take exception to one insinuation he made about married schoolteachers teaching with no kids at home. We have a little different situation at home, where we are short of teachers. We have some very respectable teachers who have from two to seven children, and those teachers have to work to support their families. Some of their husbands aren't making as much as they are.

THE SPEAKER: The question concerns Dr. Rice's motion, which is a $7,500 limit when both husband and wife are working.

H. W. HARRIS, M.D.: I too object to this motion, on a different ground—the same ground on which I spoke previously, although not to any great length—and that is that the thing is unworkable. That is why I was against the family income.

I don't see how Blue Shield can sell a policy to somebody and go out the next week and see whether his wife is working. It might be ideally and legalistically good, but practically it is impossible.

D. W. THORUP, M.D.: I have a great deal of respect for Dr. Novy's opinions, but it seems to me he missed the whole point of his comment about Dr. Rice's motion.

This couple he is talking about, that is making all this money, isn't eligible for service benefits. They would be clear out of the picture.

THE SPEAKER: **All those in favor of Dr. Rice's motion, say "aye"; opposed, "no." The motion is lost.**

We are back now to "Resolved" No. 2 of resolution "A".

L. F. HAYES, M.D.: Mr. Speaker, I would like to speak to the second "Resolved." I attended all of the Reference Committee meetings and I know that the $7,500 limit that we previously had was backed by valid statistics. These were quoted at the Reference Committee meetings.

However, the proposal for the $6,500 did not quote any statistics as to what proportion would be covered, or why the $6,500 was arrived at.

Dr. Blodgett quoted Dr. Stubbs as asking for a $6,000 level. My interpretation of Dr. Stubbs' remarks before this House was that the $6,000 is a specific contract for federal employees in which Michigan would participate, and it has nothing to do with the contract that we offer to the people of Michigan.

We have already gone on record as being in favor of family income determination. I think we all agree, and it was quite definite in the Reference Committee meetings, that normally this is right. The people who objected did so only because it is impractical; but now we are on record as stating, impractical or not, this is what we want and the Michigan Medical Service must implement it.

Now, if we are now on record as being in favor of family income determination, I think this makes a difference in our level. Since we now have family income determination, I think our level should be higher and we should keep it at $7,500.

Inasmuch as there are no statistics to back up why the $6,500 was picked, I don't think this motion should be passed.

G. S. WILSON, M.D.: I think we should give credence to the wisdom of members of the Reference Committee rather than carry on too much. I don't believe there are any small boys here who are afraid of anything for themselves. Consequently, why are we afraid to trust in the wisdom of those whom we elect to represent us on a larger scale?

The wisdom in this "as soon as feasible" should be apparent, and the facts cannot be ignored, and I doubt that anyone at a higher level in The Council or who has to work out what is meant by "as soon as feasible" would do anything to hurt anyone. Consequently, I see no reason for not passing "Resolved" No. 2.

F. B. LEVAGOOD, M.D.: Mr. Speaker, the question has been called for, and if the Chair does not wish to shut off discussion I would formally ask for the question. Then you can take a vote to see whether we want to shut off discussion.

THE SPEAKER: Gentlemen, we have listened to everybody here on both sides of this thing to the best of our ability. This calling for the question all the time is ridiculous. I haven't prolonged this meeting unduly. If you want to take a vote on the question in a formal way, if you make that in the form of a motion, I can do nothing except ask for a second and take a vote as to whether you want to stop debate right here. I am trying to run this meeting carefully. *(Applause)*

W. A. HASTY, M.D.: Am I to understand that if they set this maximum at $6,500, no one with income in a family above $6,500 can buy a noncertified income policy? Are they going to discontinue noncertified income policies?

[*Cries of "No."*]

D. N. SWEENY, M.D.: Mr. Speaker, it was not the intent of this motion to discontinue the sale of noncertified income policies, and there are specific resolutions in that regard further on in the report of the Reference Committee.

D. W. THORUP, M.D.: Mr. Speaker, I hope all the members of the House are aware, in considering this new income level, that it means of course a revision of fees downward.

THE SPEAKER: Is there further discussion? Are you ready for the question? **The question is to approve "Resolved" No. 2, setting the family income level at $6,500. All those in favor, raise your hand. All those opposed. The vote is 84 to 27 for approval.**

J. B. BLODGETT, M.D.: **Mr. Speaker, I move the acceptance of the whole resolution.**

(The motion was severally seconded.)

THE SPEAKER: All those in favor, raise your right hand. The reason I am calling for this show of hands is because it was specifically requested that the vote be counted and recorded. All opposed, raise your right hand. **The vote is 110 to 4 in favor. The motion is carried.**

XI. MICHIGAN FOREMOST FAMILY PHYSICIAN

THE SPEAKER: May I interrupt the deliberations of this assembly for a moment to read a telegram addressed to the Speaker of the House:

"Through Congressman Alvin M. Bentley I have learned that your delegates have elected Dr. Archer A. Claytor as Michigan's Foremost Family Physician. This honor is a tribute to the career of a distinguished physician and public servant. The choice of Dr. Claytor reflects the high standards of your profession. Please give him my congratulations, and my best wishes to all his colleagues. s/ Dwight D. Eisenhower." *(Applause)*

XVIII—13(e). FREEDOM OF CHOICE OF CONTRACT IN MMS

(Dr. Sweeny read resolution No. 3.)

D. N. SWEENY, M.D. *(continuing):* The Reference Committee recommends approval of this resolution by amending it to read as follows in the second "Resolved." Words should be inserted and proper deletions made so that it would read:

"RESOLVED: That the House of Delegates request Directors of Michigan Medical Service to give each purchaser or group purchaser of its contract, as the case may be, the option of choice of plans currently offered for sale, and that the eligibility for service benefits under income-not-certified contracts be determined by mutual agreement between the physician and the patient."

The Reference Committee recommends deletion of the third and final "Resolved" in the original resolution.

Mr. Speaker, I move the adoption of this resolution as amended.

E. G. KRIEG, M.D.: Second.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—13(f). MMS: PROMOTE SALE OF DEDUCTIBLE AND LIMITED SERVICE CONTRACTS

[*Dr. Sweeny read resolution No. 14.*]

D. N. SWEENY, M.D. [*continuing*]: Your reference

Committee has been advised that such contracts mentioned in the resoltuion are already available, but that only 2 to 3 per cent of the subscribers have availed themselves of these opportunities. Your Reference Committee recommends that no action be taken on this resolution.

Mr. Speaker, I move the adoption of this part of the report.

R. W. Teed, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—13(g). ITEMIZATION OF BLUE CROSS-BLUE SHIELD PREMIUM NOTICES

[*Dr. Sweeny read resolution No. 30.*]

D. N. Sweeny, M.D. [*continuing*]: This Reference Committee approved the sense of this resolution, but it notes that only 15 per cent of subscribers are billed individually. The Reference Committee recommends wider distribution of information differentiating between hospital and medical costs.

We therefore recommend the following added "Resolved" as an amendment.

"RESOLVED: That wider distribution by Michigan Medical Service of information differentiating between hospital and medical costs be encouraged."

Mr. Speaker, I move adoption of this resolution as amended.

C. L. Weston, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—13(h). MMS: CHANGES IN PUBLIC ADVERTISING

[*Dr. Sweeny read resolution No. 40.*]

D. N. Sweeny, M.D. [*continuing*]: The Reference Committee recommends disapproval of this resolution.

Mr. Speaker, I move adoption of this part of the report.

[*The motion was severally seconded.*]

Louis Jaffe, M.D.: I would like to ask Dr. Baumgarten what the sense was. I would guess what he had in mind was that Michigan Medical Service include Blue Cross as well as Blue Shield, and that a high percentage of the expense is hospital expense, and therefore this is not entirely the Doctors' Plan.

Dr. Baumgarten, was that what you had in mind?

E. C. Baumgarten, M.D.: Mr. Speaker, the original resolution as I presented it was turned over to the Resolutions Committee. The phrase "The Doctors' Plan" was not included in my resolution. That was not in it. My intent was merely to delete from advertising that Blue Shield pays the doctor, without "The Doctors' Plan" being in there.

The reason for the resolution was this: For many years Blue Shield and Blue Cross—and incidentally, Dr. Jaffe, the advertising of Blue Cross and Blue Shield is a joint operation, not a separate thing; it is a joint deal. In my opinion there have been many arguments by patients, regardless of which contract they have and whether they are eligible for service or not, who have come up with the argument that "The advertising says Blue Shield pays the doctor." They infer that under any circumstances whatever the bill is paid in full. That was my idea.

I have no objection whatsoever to this. My only feeling was that "The Doctors' Plan" should be deleted, and that the advertising should be confined to facts, which in this particular instance it does not do.

J. D. Fryfogle, M.D.: Mr. Speaker, if the assembly continues to move under the momentum it is going, I think disapproval would be very worthwhile, because we may well all be working for a Doctors' Plan.

The Speaker: The motion is to disapprove resolution No. 40. Are you ready to vote? Those in favor, say "aye"; those opposed, "no." The motion is carried.

XVIII—13(i). HOUSE OF DELEGATES PERMANENT ADVISORY COMMITTEE ON FEES

D. N. Sweeny, M.D.: The next item considered by the Reference Committee was the annual report of the Permanent Advisory Committee on Fees, 1958-1959, found on page 97 of the Handbook for Delegates. The Reference Committee recommends the approval of this report.

Mr. Speaker, I move the adoption of this part of the report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—13(j, k, and l). MMS: PARTICIPATING AND NONPARTICIPATING PHYSICIANS TO BE PAID IN SAME MANNER (Three Resolutions)

D. N. Sweeny, M.D.: Next, the Reference Committee considered resolutions Nos. 10, 17 and 20, which I will read in order—in that order. These resolutions have to do with the problem of nonparticipating and participating physician designation. I will read them and then the Reference Committee will propose a substitute resolution.

[*Dr. Sweeny read resolutions Nos. 10, 17 and 20.*]

D. N. Sweeny, M.D. [*continuing*]: The Reference Committee proposes substitute resolution "C," which I will read and of which you have a mimeographed copy. This is substitute resolution "C," a substitution for resolutions Nos. 10, 17 and 20 just read.

"Whereas, there has been much discontent created by the present method of payment for services rendered by the nonparticipating physician; be it

"RESOLVED: That to avoid this distinction between participating and nonparticipating physicians, it is recommended that Michigan Medical Service incorporate on the Doctor Service Report form a statement of assignment to be signed by the subscriber when payment is to be made to a nonparticipant."

Mr. Speaker, I move the adoption of this substitute resolution.

[*The motion was severally seconded.*]

R. R. Cooper, M.D.: Mr. Speaker, as a delegate from the County which has probably been the loudest, and I being one of the loudest voices in that community, I rise to say that I think this is a nice way of doing it. I will have to recognize the tenor of the group here, feeling that this differential should be made, and I speak in favor of this resolution.

However—and correct me if I am wrong—I understand that the National Board of Blue Shield recommended that two more squares be added to this, one of which would say that the service had been given, and the other to say that they were not over the specified income level. I am sure this was considered, but it seems to me these are valuable things, and I therefore move their addition to this very fine motion.

D. N. Sweeny, M.D.: Dr. Cooper, you are entirely correct. In discussion before the Reference Committee's open hearing, and also in discussion for information which your Reference Committee had with the members of the National Blue Shield Commission, the subject was considered.

It was not a part of the original motion, as you have noted. The Blue Shield Commissioners told us that in other parts of the country a box was placed on the Doctor Service Report which made mention of the fact that a subscriber was either over or under income

and had received the service. It was suggested that a further line might be added—but that is not the sense of the motion as it comes from the Reference Committee except by your amendment.

THE SPEAKER: Dr. Cooper, will you state your amendment again? It is an amendment, is it not? Would you move it again?

R. R. COOPER, M.D.: **I move that this resolution be amended to include, in the assignment, the following:**

". . . and be it further

"RESOLVED: That this assignment includes designation of (1) whether the service has been received, and (2) whether the subscriber is above income level or not."

E. C. BAUMGARTEN, M.D.: I am entirely in favor of this resolution, but the Doctor Service Report as it is today is rather a large, bulky document. This may not be necessary.

Many of us have been using assignment forms which we have had printed and carry in our pocket very easily. I think in order that there be no mistake, it would not be a bad idea to add to the last sentence, "and that any other form of proper or valid assignment be acceptable."

I make that as an amendment.

R. L. NOVY, M.D.: I think we are wasting quite a little time. In the first place, in regard to Dr. Cooper's amendment, that was a form that was suggested, and they used it in Washington. D. C. We had a copy of it. It involved a checking of six or eight different slots that were used in their method. This allows, simply, handling of the immediate problem.

The consideration of the use of slots and what was used in Washington, D. C., was one of the problems we expected and turned over to the Blue Shield Commission in their look at the relation between Medical Service and the doctor.

The same in regard to Dr. Baumgarten's statement. An assignment is always legal, whether it is written on toilet paper or not. *(Laughter)*

C. W. COLWELL, M.D.: Mr. Speaker, although I am very much in favor of this, I would bring to your attention the fact that it does not answer the question that was in the original resolution. The original resolution said we would make no distinction between participating and nonparticipating. The substitute resolution has nothing to do with participating and nonparticipating. It merely defines a way of paying a nonparticipating physician.

I also would like to put in the record that this will not handle the problem that it was attempted to handle in the House of Delegates meeting a year ago, when it was passed that no information would be disseminated whereby lists of participating or nonparticipating physicians would be produced.

However, in our county it was printed in a newspaper showing the list of the participating physicians. I think that is a thing we are trying to get away from, so there will be no distinction between the two and no stigma attached to either a participating or a nonparticipating physician, depending on how the patient or the physician feels.

I don't know how to do it, but I would like to add some sort of an amendment to this that would answer our original resolution.

D. N. SWEENY, M.D.: Dr. Colwell, the Reference Committee was cognizant of this difficulty, and we compromised at this level. I think you can recognize it as a compromise, because we have been told that any great resignation from the participating physician rolls would make the action of the Michigan Medical Service a fraud on the public.

We are trying very hard, and I recognize that some of these statements you may take exception to, but we have recognized that showing of a distinction between the participating and nonparticipating physician. We feel, after spending three hours on this subject, that this is the least onerous method of distinguishing between one class and the other.

We recognize that if you do not feel this resolution is an adequate substitute for resolution No. 20, you may in some way reintroduce that resolution, according to how the Speaker wants it done. We tried very hard to reach a compromise in this way.

F. P. RHOADES, M.D.: Mr. Speaker, I think we are crossing this matter with the department by how the statement appears on the Medical Service Report. As long as it does not say that this assignment is necessary because the physician is nonparticipating, as long as it is a noxious statement saying that they hereby assign payment to the physician who rendered the service, without any comment, I don't think there would be any difficulty about that.

L. F. HAYES, M.D.: Speaking to Dr. Cooper's proposed amendment, I am quite certain that the present Doctor Service Report includes a space where the patient says that the service has been received.

[*Cries of "No."*]

D. N. SWEENY, M.D.: May I correct Dr. Hayes. The Doctor Service Report (and that is a poor term)—there are two of them. The Class 1 benefit does not include that. The Class 2 benefit reports do.

THE SPEAKER: Gentlemen, I have allowed you to discuss the main motion, but actually we should be discussing the amendments first.

E. C. BAUMGARTEN, M.D.: Mr. Speaker, as far as Dr. Novy's statement is concerned regarding toilet paper, I will be glad to withdraw my amendment.

[*The seconder also withdrew.*]

THE SPEAKER: The second amendment is withdrawn. We still have Dr. Cooper's amendment. Do you want a vote on it, Dr. Cooper?

R. R. COOPER, M.D.: I think it might be worthy of consideration, so I would like to hear it discussed.

C. W. COLWELL, M.D.: I don't believe there should be any mention in the paper of an income level. Let's settle that. Why do we want to put the income level in it?

R. R. COOPER, M.D.: May I attempt to answer that? That was pointed out to me. I must admit I haven't had any experience with these forms. I have been taking the reports of the National Board. But it does seem to me we have had a lot of discussion here about whether a doctor is too embarrassed to ask his patient how much he makes, and just how one would get a credit rating on a doctor, and I think this is probably a way that would cause no embarrassment to anybody.

You could have your patient check that when he comes into the office. I don't think the patient would object, and it might give some information in a very simple and easy way. I think it has value along that line. That may not be germane to participating and nonparticipating, but I think it should be included in the amendment.

THE SPEAKER: Is there further discussion? **You are now voting on the amendment made by Dr. Cooper.** Those in favor, say "aye"; those opposed, "no." **The amendment is lost.**

We are back to resolution "C," presented by the Reference Committee, which is a substitute resolution for Nos. 10, 17 and 20.

J. J. COURY, M.D.: I see no trouble in passing this resolution, since the smoke screens have been cleared away. "Participating" and "nonparticipating" should go too, without any difficulty.

A. M. LARGE, M.D.: Why does the "Resolved" say "subscriber" rather than "patient?". It is customary to have the patient sign. Why is it changed from "patient" to "subscriber?"

D. N. SWEENY, M.D.: Your point is well taken, Dr. Large.

R. L. NOVY, M.D.: Would Dr. Large expect the infant child to sign?

A. M. LARGE, M.D.: "Patient" means an adult—a person of age. *(Laughter)*

E. J. TALLANT, M.D.: I would like to amend it to read "patient or subscriber." I so move.

[*The amendment was severally seconded.*]

A. M. Large, M.D.: Mr. Speaker, may I comment again? This of course applies to people who are legally able to sign. It is simply a matter of convenience for the doctor taking care of them.

E. G. Krieg, M.D.: Mr. Speaker, the subscriber is the one who pays the premiums, not the family. He is the one who has to sign this form.

The Speaker: The amendment is to use the words "patient or subscriber." Further discussion?

R. L. Novy, M.D.: I think you are muddying up the waters and you are going to have to go into legal setups, because the patient isn't the one who pays the bill or receives the contract. A baby is the one you are talking about. A baby can't sign its name, and neither can an illiterate, but all that is needed is a scratch and a witness, and that is its signature.

D. W. Thorup, M.D.: Mr. Speaker, Michigan Medical Service now accepts the signature of a responsible, legally competent member of the family.

The Speaker: It does not make a difference?

D. W. Thorup, M.D.: Not as far as Michigan Medical Service is concerned.

The Speaker: It is a legal dependent, of age?

D. W. Thorup, M.D.: That's right.

The Speaker: Mr. Dodd, do you have any comment to make on that?

Mr. Dodd: No sir.

The Speaker: Are you ready to vote on the amendment? **All those in favor of the amendment, say "aye"; opposed, "no."** We will have a show of hands. All those in favor, raise your right hand. **The amendment is to include the words "patient or" before the word "subscriber."** If I understand correctly, the amendment would insert two words, "patient or."

Those in favor, raise your right hand. Those opposed raise your right hand. **The official count is 100 for it and 13 against. The amendment is carried.**

Now we are back to the substitute resolution "C" as amended. All those in favor, say "aye"; opposed, "no." **It is carried.**

XVIII—13(m). MCIC's STUDY ON ALTERNATE METHODS OF PAYMENT TO NON-PARTICIPATING PHYSICIANS

D. N. Sweeny, M.D.: The next item of business before the Reference Committee was consideration of the Report On Alternative Methods Of Payment To Nonparticipating Physicians, from the Medical Care Insurance Committee of the Michigan State Medical Society.

This report was carefully considered. The intent of this report has been carried out in the substitute resolution "C" just discussed and passed.

The Reference Committee commends Dr. Max Lichter and his Medical Care Insurance Committee for the amount of work expended on this extensive study. The preliminary report of the special committee of Blue Shield Medical Care Plans to Study Certain Current Problems of Michigan Medical Service, presented by Dr. Stubbs to the House of Delegates, substantiates much of the MCIC report.

Mr. Speaker, I move the adoption of this part of this report.

L. F. Hayes, M.D.: Support.

[*The motion was put to a vote and was carried unanimously.*]

XVIII—13(n). PRESENTATION MADE BY CHAIRMAN, NATIONAL BLUE SHIELD PLANS

D. N. Sweeny, M.D.: The next portion of the material presented to your Reference Committee for consideration was the preliminary report of the Special Committee of Blue Shield Medical Care Plans to Study Certain Current Problems of Michigan Medical Service, presented by Dr. Stubbs.

We were very much impressed by this report of Dr. Donald Stubbs, Dr. Russell Carson and Mr. John Castellucci. We note that they are prepared to make "a study of management, administration and corporate structure of Michigan Medical Service" at the request of Michigan Medical Service. This is a study which we believe is urgently needed.

We are also pleased that this group is willing to study the entire problem of the relationship of Michigan Medical Service and the Michigan State Medical Society. We recommend that this study be undertaken. We further recommend the appointment of a special committee of the House of Delegates to co-operate with the National Blue Shield Commission Committee. This committee should be not less than five nor more than seven members, appointed by the Speaker of the House of Delegates. This committee should report to the House of Delegates at its next meeting, if that be March 1960, or otherwise to The Council if its recommendations need implementation before the next regular meeting of the House of Delegates, at which time this committee should otherwise report.

Mr. Speaker, I move the adoption of this part of this report.

[*The motion was severally seconded.*]

W. S. Carpenter, M.D.: Do I understand we are approving all of Dr. Stubbs' report, or just one part of it? I would like to know specifically whether we are approving paragraph 5 on page 7.

D. N. Sweeny, M.D.: That should be so stated. We are not, because that is the next item I would like to bring up.

I will amend my motion to exclude item 5, page 7 of the report from the present matter under discussion.

[*The amendment was severally seconded.*]

The Speaker: Is there discussion on the amendment?

G. S. Fisher, M.D.: I am sorry I don't have that material with me. Could you tell us what it is about?

D. N. Sweeny, M.D.: Dr. Fisher, do you request that the entire report be read?

G. S. Fisher, M.D.: No.

D. N. Sweeny, M.D.: The excluded item on page 7, paragraph 5, is as follows:

"Because so-called national accounts represent an increasingly important source of subscribers to Blue Shield, and because the Federal Employe Health Benefits Act recently enacted into law represents a potential source of enrollment of real significance, it is imperative that we lose no time in getting 100 per cent Plan participation in our Blue Shield National Account Agreement. Therefore, we recommend that Michigan Medical Service adopt the National Account Agreement featuring a uniform scope of benefits under which Service Plans provide a $6,000 family income level contract. The fee schedules are determined locally and are to be related to a $6,000 income level program for the area concerned.

"It is imperative that we have the National Account program available for employes of the Federal Government. Michigan's participation is indispensable to us in this effort. We urge the Board of Michigan Medical Service to approve participation of the Plan in our National Account Agreement in addition to contracts currently offered."

The Speaker: This is being excluded. Do I understand you have a resolution concerning this particular item?

D. N. Sweeny, M.D.: Yes, sir.

The Speaker: The amendment is to exclude this portion from the matter you are now voting on, which is Dr. Stubbs' entire report. Any further discussion?

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: The amendment is carried unanimously. **Now we will vote on Dr. Stubbs' report, which has been approved by the Reference Committee with this exception.** Any discussion?

[*The motion as amended was put to a vote and was carried unanimously.*]

NATIONAL ACCOUNT AGREEMENT

D. N. Sweeny, M.D.: Further comment concerning the report given this House of Delegates by Dr. Stubbs stimulates **a recommendation from this Reference Committee that Michigan Medical Service adopt the National Account Agreement urged by Dr. Stubbs in item 5, page 7 of his report, and that this recommendation be made by the House of Delegates**, any prior actions to the contrary notwithstanding.

Mr. Speaker, I move the adoption of this portion of the report.

[*The motion was severally seconded.*]

R. E. Wunsch, M.D.: Mr. Speaker, I would like to draw the attention of the House of Delegates to the fact that although I am sure all of us listened to Dr. Stubbs' report with great interest, and I am sure we are very interested in the possibility of this, I wonder if perhaps a little more detailed information might well be made available to us, since this is again a rather blanket and somewhat long-range action.

I therefore would ask whether we could have more information made available.

The Speaker: The Chairman of the Reference Committee, anticipating this request, asked the Speaker for the privilege of having Mr. Jay Ketchum come in and talk about this matter. Would you like to give him three minutes? *(Applause)*

Mr. Jay Ketchum: I will have to decline the three minutes. Mr. Castellucci is here and is better equipped to speak.

Mr. John Castellucci: Mr. Speaker and gentlemen, our National Account Agreement is an agreement signed by most Plans and was arrived at to take care of National Accounts, to get away from some of the difficulties of the various Blue Shield Plans mostly in underwriting. We have uniformity in the underwriting process where it concerns age limits on dependents, the number of days of in-hospital medical, whether you start with the first day or the second day. I will describe the whole program.

The scope of benefits is uniform, and in the scope of benefits we provide surgery in and out of the hospital; in-hospital medical care; all of the ancillary services such as x-ray, pathology, physiatry and anesthesia when performed and billed by a doctor who customarily bills for his services.

This is pretty much a standard program of Blue Shield. The income level is the mean income level across the country, a $6,000 family income. This is being asked for by the federal employes, as we understand about three-fourths of the federal employes fall within that income bracket.

The scope of benefits is not in variance with programs that have existed heretofore. It was not our intention that this would change any of the existing programs in any given area. There are a number of states that have income levels considerably higher—up to $10,000. It is our intention to be able to offer one that is uniform so that the national employer can buy something that will be the same for all employes.

If you have any questions I will be happy to try to answer them.

R. L. Novy, M.D.: I have two questions. In the first place, where is the fee schedule determined?

Mr. Castellucci: The fee schedules are determined locally. You apply your own fee schedules to the income level.

R. L. Novy, M.D.: Secondly, is there any change in the present income level that Michigan has? Would it necessitate a separate arrangement as far as income limits are concerned?

Mr. Castellucci: It would.

R. L. Novy, M.D.: To what extent?

Mr. Castellucci: $6,000 family income level.

R. L. Novy, M.D.: The present one is $7,500. Do you have to go down or can you use the one that is in Michigan?

Mr. Castellucci: In this particular case, particularly with federal employes, I believe you would have to go down to $6,000.

The Speaker: Thank you, Mr. Castellucci.

E. C. Baumgarten, M.D.: May I ask Mr. Castellucci a question. He said 100 per cent participation throughout the country. Is this participation meant only as far as Plans are concerned, or in order to validate these National contracts do you have to have 100 per cent participation of the physicians?

Mr. Castellucci: Of the Plans.

W. J. Fuller, M.D.: I would like to bring up one point. Dr. Stubbs said we should do this because it represents an increase in business that is obtainable. That is not our principle. Our principle has been that we would provide medical care to more people who deserve it. That should be considered.

The Speaker: Further discussion? Are you ready for the question?

[*The motion was put to a vote and was carried unanimously.*]

XVIII—13(o). MMS: STUDY OF REMUNERATION FOR PROLONGED AND/OR COMPLICATED CASES

D. N. Sweeny, M.D.: The next item of business before this Reference Committee was the consideration of resolution No. 38, which I will read.

[*Dr. Sweeny read resolution No. 38.*]

D. N. Sweeny, M.D. [continuing]: Your Reference Committee approves this resolution in principle, but recommends that this problem of prolonged and/or complicated care be referred to that committee of the House of Delegates of the Michigan State Medical Society appointed to work in co-operation with the advisers from the National Blue Shield Commission for review of Michigan Medical Service problems.

In support of this, your Reference Committee offers substitute resolution "B," as follows:

"Whereas, the Michigan Medical Service Fee Schedule does not take into consideration the need for additional remuneration in cases where the care is prolonged and/or complicated; therefore, be it

"RESOLVED: That the committee of the House of Delegates of the Michigan State Medical Society appointed to work in co-operation with the advisers from the National Blue Shield Committee for review of Michigan Medical Service problems be instructed to include in its study the remuneration for the care of prolonged and/or complicated cases; and be it further

"RESOLVED: That this committee shall report its findings and recommendations to the House of Delegates at the next meeting."

Mr. Speaker, I move the adoption of this substitute resolution.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—13(p). REAFFIRMING 1957 STATEMENT OF PRINCIPLES

D. N. Sweeny, M.D.: The next item of business before the Reference Committee was resolution No. 8, which I will read.

[*Dr. Sweeny read resolution No. 8.*]

D. N. Sweeny, M.D. [*continuing*]: The Reference Committee feels that at this time no action should be taken on this resolution, but in lieu thereof this Reference Committee recommends the following substitute resolution "D":

"RESOLVED: That the Statement of Principles of Prepayment Medical Care Insurance, as approved by the House of Delegates in September 1957, be referred for review and revision to the special committee of the House of Delegates of the Michigan State Medical

Society to be appointed to co-operate with the National Blue Shield Commission."

Mr. Speaker: I move the adoption of this part of our report.

[*The motion was severally seconded.*]

D. N. SWEENY, M.D.: The Speaker has called my attention to the fact that I read the resolution differently from the way it was stated in the mimeographed copy. The words "for review and revision" should be placed after the words "be referred."

A. C. STANDER, M.D.: Does this motion imply that after revision this will be returned to the House of Delegates for their approval?

D. N. SWEENY, M.D.: It implies it but does not state it. You might wish to so amend it.

A. C. STANDER, M.D.: I wish to amend this motion to state that after it has been reviewed and revised it be returned to the House of Delegates for approval.

F. P. RHOADES, M.D.: Support.

G. S. FISHER, M.D.: Does a special committee of the House have to report to the House?

THE SPEAKER: The special committee of the House reports back to the House, yes. There is nothing in this resolution that says when it shall report. I am not sure if it so stated in the previous resolution.

The point of order is that it is not necessary, because special committees automatically report to the House, Dr. Stander. Do you still want to tack that on?

A. C. STANDER, M.D.: That was why I originally asked the question before I made the amendment. If it is unnecessary, I will withdraw my amendment.

THE SPEAKER: It is not necessary.

W. J. FULLER, M.D.: This asks for approval, not only for information but also for approval.

THE SPEAKER: Dr. Stander's amendment asked for approval, but the word "approval" actually connotes that it may be disapproved, too. I think we are perfectly safe if we leave it as it is.

C. I. OWEN, M.D.: I think from the hubbub here the feeling is that this is just a little incomplete, and **it ought to read ". . . and report back to the House of Delegates at its next meeting." I move that amendment to the resolution.**

THE SPEAKER: This is in the form of an amendment, that it be reported back at the next meeting. If it is an interim report it will be an interim report.

[*The amendment was severally seconded.*]

E. M. VARDON, M.D.: I have been told that this committee as set up has already been instructed to report to our next meeting; isn't that correct. If so, it seems to me this amendment is hardly necessary. I may be misinformed.

C. I. OWEN, M.D.: Just one point. This motion as it now stands gives the committee the power to review and revise, when they should not have that power. Anything they do should be brought back to the House of Delegates, even referring to this specific item. If we are not careful, that committee could revise it on their own. That is the reason why I made the amendment.

J. D. MILLER, M.D.: Would Dr. Owen accept "review and recommend revisions?"

R. L. NOVY, M.D.: In order to expedite it, Mr. Speaker, let's act on the resolution. It is redundant, but let's act on it.

C. I. OWEN, M.D.: A point of order.

THE SPEAKER: **The amendment is to report back to the House of Delegates at its next meeting.** That is an official amendment. All those in favor, say "aye"; opposed, "no." **It is carried.**

Are you ready to vote on the main motion as amended?

[*The motion as amended was put to a vote and was carried unanimously.*]

XVIII—13(q). MSMS SPONSORSHIP OF A PREPAID MEDICAL CARE INSURANCE PLAN

D. N. SWEENY, M.D.: Your attention is directed to resolution No. 12, which I will read.

[*Dr. Sweeny read resolution No. 12.*]

D. N. SWEENY, M.D. [*continuing*]: The Reference Committee recommends that this resolution be approved.

Mr. Speaker, I move the adoption of this part of the report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII—13(r). HOUSE OF DELEGATES TO APPROVE PREPAYMENT PLAN CONTRACTS

D. N. SWEENY, M.D.: The next and last item on the agenda of our Reference Committee was resolution No. 21, which I will read.

[*Dr. Sweeny read resolution No. 21.*]

D. N. SWEENY, M.D. [*continuing*]: Careful consideration was given to this resolution. Your Reference Committee recommends that no action be taken on it at this time, but recommends that this problem be specifically referred to the committee of the House of Delegates appointed to work in co-operation with the advisers from the National Blue Shield Commission for review of Michigan Medical Service problems.

Mr. Speaker, I move the adoption of this part of the report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

D. N. SWEENY, M.D.: Mr. Speaker, I move the adoption of the entire report as amended.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

S. E. CHAPIN, M.D.: Mr. Speaker, I move a rising vote of thanks to Dr. Sweeny and his Reference Committee for the excellent job they have done.

(The House arose and applauded.)

THE SPEAKER: Gentlemen, we will be through very shortly. I certainly do not want to create any further discussion, and I hope there will be none. If you want to do something about it, somebody can make a motion and then we vote and get it over with.

Your Speaker ruled this morning that a resolution concerning a meeting in March was out of order. There is another way you might accomplish this. If you want to know how to do it, I'll tell you.

You may recess this meeting. I have checked with legal counsel about it, and you do not have to have any unfinished business in order to recess a meeting. You may recess this meeting to a specified time, which could be set at the time of the MCI meeting in March, if you wish.

Let's settle it quickly if we can.

G. S. WILSON, M.D.: I move that this meeting adjourn.

[*The motion was severally seconded.*]

THE SPEAKER: I cannot possibly express to the chairmen and members of the various reference committees and to the people who have participated in the deliberations of this House how grateful I am to you for the time, effort, energy and wisdom you have used to settle some of these problems. I am sure that not only should we accord Dr. Sweeny's Reference Committee a rising vote of thanks, but that we should do so for all of the reference committees. Will you do that at this time, please?

(The House arose and applauded.)

THE SPEAKER: Dr. Stander has a note to add.

A. C. STANDER, M.D.: Mr. Speaker, in the last two years our deliberations have been less confused and have been considerably accelerated and clarified by having had copies of the resolutions and other information made available to us.

The dissemination of this information to the House of Delegates has been considerably improved this year over last year, and therefore I formally move that the entire administrative staff of the State Society be com-

mended; that Mr. Philleo and his staff particularly be commended, and if possible and if he is able at this time, that they brought before the House for a rising vote of thanks.

G. S. Wilson, M.D.: I think he is out of order, but let's do it. *(Laughter)*

The Speaker: It won't be the first time we have been out of order. *(Laughter)*

[*The House gave a rising vote of thanks to the staff.*]

XXII. ADJOURNMENT

[*The motion to adjourn was put to a vote and was carried unanimously.*]

(The House adjourned sine die at 12 o'clock noon.)

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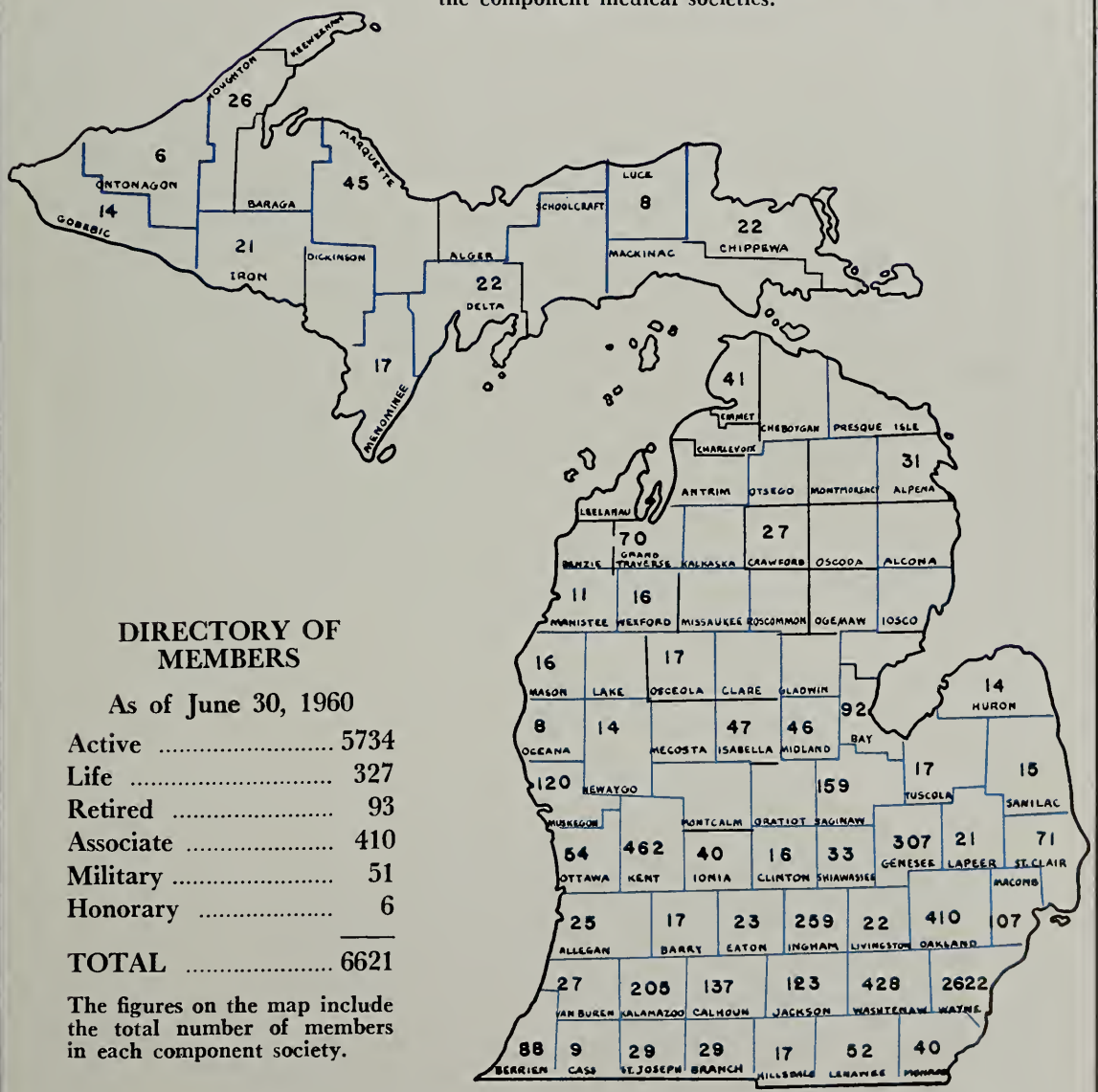
The Journal
Michigan
STATE MEDICAL SOCIETY

August, 1960
Volume 59
Number 8

(This number is composed of two sections, of which this is Section 2)

Directory of Members—1960

The blue lines on the map indicate the boundaries for the component medical societies.



DIRECTORY OF MEMBERS

As of June 30, 1960

Active	5734
Life	327
Retired	93
Associate	410
Military	51
Honorary	6
TOTAL	6621

The figures on the map include the total number of members in each component society.

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Hartford (Van Buren)	34
Hastings (Barry)	5
Hazel Park (Oakland)	28
Highland Park (Wayne)	37
Hillsdale (Hillsdale)	13
Holland (Ottawa)	31
Holly (Oakland)	28
Homer (Calhoun)	7
Houghton (Houghton)	13
Howell (Livingston)	23
Hubbell (Houghton)	13
Hudson (Lenawee)	23
Hudsonville (Ottawa)	31
Huntington Woods (Oakland)	28
Imlay City (Lapeer)	22
Inkster (Wayne)	37
Ionia (Ionia)	15
Iron Mountain (Dickinson)	9
Iron River (Iron)	9
Ironwood (Gogebic)	12
Ishpeming (Marquette)	24
Ithaca (Gratiot)	12
Jackson (Jackson)	16
Jonesville (Hillsdale)	13
Kalamazoo (Kalamazoo)	17
Kalkaska (Kalkaska)	27
Kingsford (Dickinson)	9
Lake Linden (Houghton)	13
Lake Odessa (Ionia)	15
Lake Orion (Oakland)	28
Lakeview (Calhoun)	7
L'Anse (Baraga)	13
Lansing (Ingham)	13
Lapeer (Lapeer)	22
Laurium (Houghton)	13
Lawton (Van Buren)	34
Leslie (Ingham)	13
Lincoln Park (Wayne)	37
Livonia (Wayne)	37
Ludington (Mason)	25
Mancelona (Antrim)	27
Manchester (Washtenaw)	34
Manistee (Manistee)	24
Manistique (Schoolcraft)	9
Manton (Wexford)	56
Marcellus (Cass)	8
Marine City (St. Clair)	32
Marlette (Sanilac)	33
Marquette (Marquette)	24
Marshall (Calhoun)	7
Marysville (St. Clair)	32
Mason (Ingham)	13
Melvindale (Wayne)	37
Menominee (Menominee)	25
Michigan Center (Jackson)	16
Middleville (Barry)	5
Midland (Midland)	25
Milan (Monroe & Washtenaw)	26, 34
Milford (Oakland)	28
Millington (Tuscola)	34
Monroe (Monroe)	26
Montague (Muskegon)	26
Morenci (Lenawee)	23
Mount Clemens (Macomb)	23
Mount Morris (Genesee)	10
Mount Pleasant (Isabella)	12
Munising (Alger)	24
Muskegon (Muskegon)	25
Muskegon Heights (Muskegon)	26
Nashville (Barry)	5
Negaunee (Marquette)	24
Newaygo (Newaygo)	27
New Baltimore (Macomb & St. Clair)	23, 32
Newberry (Luce)	23
New Buffalo (Berrien)	6
Niles (Berrien)	6
North Muskegon (Muskegon)	26
Northville (Wayne & Oakland)	28, 37
Norway (Dickinson)	9
Oak Park (Oakland)	28
Onaway (Presque Isle)	5
Ontonagon (Ontonagon)	31
Otsego (Allegan)	5
Ovid (Clinton)	9
Owosso (Shiawasee)	33
Oxford (Oakland)	28
Painesdale (Houghton)	13
Parchment (Kalamazoo)	17
Paw Paw (Van Buren)	34
Pentwater (Oceana)	31
Perry (Shiawasee)	33
Petersburg (Monroe)	26
Petoskey (Emmet)	27
Pigeon (Huron)	13
Pinconning (Bay)	6
Plainwell (Allegan)	5
Pleasant Ridge (Oakland)	28
Plymouth (Wayne)	37
Pontiac (Oakland)	28
Port Huron (St. Clair)	32
Portland (Ionia)	15

CITY and COUNTY	PAGE
Quincy (Branch)	7
Reading (Hillsdale)	13
Reed City (Osceola)	25
Richmond (Macomb)	23
River Rouge (Wayne)	37
Riverview (Wayne)	37
Rochester (Oakland)	28
Rockford (Kent)	18
Rockwood (Wayne)	37
Rogers City (Presque Isle)	5
Romeo (Macomb)	23
Roseville (Macomb)	23
Royal Oak (Oakland)	28
Saginaw (Saginaw)	31
Saint Clair (St. Clair)	32
Saint Clair Shores (Macomb)	23
Saint Ignace (Mackinac)	8
Saint Johns (Clinton)	9
Saint Joseph (Berrien)	6
Saint Louis (Gratiot)	12
Saline (Washtenaw)	34
Sandusky (Sanilac)	33
Saugetuck (Allegan)	5
Sault Sainte Marie (Chippewa)	8
Schoolcraft (Kalamazoo)	17
Scottville (Mason)	25
Sebewaing (Huron)	13
Shelby (Oceana)	31
Southfield (Wayne)	37
South Haven (Van Buren)	34
South Lyon (Oakland)	28
Sparta (Kent)	18
Spring Lake (Ottawa)	31
Stambaugh (Iron)	9
Standish (Arenac)	6
Stanton (Montcalm)	15
Stockbridge (Ingham)	13
Sturgis (St. Joseph)	13
Sylvan Lake (Oakland)	28
Tawas City (Iosco)	6
Tecumseh (Lenawee)	23
Three Rivers (St. Joseph)	33
Traverse City (Grand Traverse)	12
Trenton (Wayne)	37
Union City (Branch & Calhoun)	7
Utica (Macomb)	23
Vandercook Lake (Jackson)	16
Van Dyke (Macomb)	23
Vassar (Tuscola)	34
Vicksburg (Kalamazoo)	17
Wakefield (Gogebic)	12
Walled Lake (Oakland)	28
Warren (Macomb)	23
Watervliet (Berrien)	6
Wayland (Allegan)	5
Wayne (Wayne)	37
West Branch (Ogenaw)	27
Whitehall (Muskegon)	26
White Pigeon (St. Joseph)	33
Wyandotte (Wayne)	37
Wyoming (Kent)	18
Yale (St. Clair)	32
Ypsilanti (Washtenaw)	34
Zeeland (Ottawa)	31

Michigan State Medical Society

Directory of Members, 1960

Listed by Component Medical Societies

(Special Memberships are indicated as follows: "L" for Life Members; "M" for Military Members; "R" for Retired Members; "A" for Associate Members; all others are Active Members.)

Numbers in parentheses indicate County Society Code Numbers used in Alphabetical Roster.

ALLEGAN COUNTY MEDICAL SOCIETY (10)

Brachman, A. Peter, Jr.....222 Trowbridge St., Allegan
Brown, Lewis F.....133 E. Allegan St., Otsego
Burt, Emma G.....Allegan Co. Health Dept., Allegan
Chase, Walter E.....890 Riverview Rd., Plainwell
Clark, James I.....Box B, Fennville
Dickinson, Clyde A.....Wayland
Everett, D. W.....Plainwell Sanitarium, Plainwell
Goddard, G. B.....218 E. Orleans, Otsego
Goude, Albert G. (A).....Hopkins
Hays, James D.....Saugatuck
Johnson, Elwin B.....144 Brady St., Allegan
Johnson, Harrison H. (L).....Wayland
Keeler, Van O.....Otsego
Kromer, Robt. A.....Wayland
Mahan, James E.....402 Trowbridge St., Allegan
Medill, Wilbur C.....139 N. Main St., Plainwell
Miller, Kenneth C.....Saugatuck
Pone, Janis.....Martin
Ramseyer, Gladwin E.....130 N. Main St., Plainwell
Schneiter, Harry E.....425 Cutler, Allegan
Topp, Elwin W.....502 N. Main St., Plainwell
Van Der Kolk, Bert.....Hopkins
Vander Voord, Gerald.....Moline
Vaughan, Willard R.....Plainwell
Wiseman, Bertha A.....Box 177, Allegan

ALPENA-ALCONA-PRESQUE ISLE COUNTY MEDICAL SOCIETY (14)

Arscott, Edward F.....Rogers City
Brown, Donald C.....312 E. Chisholm St., Alpena
Bunting, John W.....110 N. 1st Ave., Alpena
Burkholder, H. J. (L).....122 N. Second Ave., Alpena
Cohn, Stuart L.....1253 W. Washington, Alpena
Constantine, Aeneas.....Harrisville
Finch, Donald E.....Onaway
Foley, Arthur L.....Rogers City
Foley, Richard.....Rogers City
Grause, Thomas J.....312 E. Chisholm St., Alpena
Henderson, D. G.....Alpena General Hosp., Alpena
Hier, Edward A.....125 N. Second Ave., Alpena
Jackson, Wm. F.....Rogers City
Kessler, Harold.....312 E. Chisholm St., Alpena
Kutsche, W. F.....208 Lake St., Oscoda
Leopard, J. M.....312 E. Chisholm St., Alpena
Lipski, John G.....Posen
Nesbitt, Wm. E.....123 N. 2nd Ave., Alpena
O'Dell, F. C., Jr.....110 W. Chisholm St., Alpena
O'Donnell, Francis J.....153 State St., Alpena
Parmenter, Elbert S.....Box 192, Alpena
Py, Raymond J.....115 N. First St., Alpena
Ramsey, J. Allen.....312 E. Chisholm St., Alpena
Ries, Robt. C.....Rogers City
Riker, John L.....126 Hitchcock Ave., Alpena
Rowell, Wilfred J.....Alpena Gen. Hosp., Alpena
Spens, James E.....123 N. Second Ave., Alpena
Town, Floyd.....Hillman
Wagoner, Darwin E.....6515 Loud Drive, Oscoda
Wienczewski, T. W.....811 Chisholm St., Alpena
Wilson, Chas. S. (L).....730 State St., Alpena

BARRY COUNTY MEDICAL SOCIETY (18)

Birk, Wilbur R.....146 State St., Hastings
Castleman, Douglas H.....146 E. State St., Hastings
Clark, Daniel M. (R).....2035 Lycoming Creek, Williamsport, Pa.
Finnie, Raymond G.....118 E. Walnut St., Hastings
France, Lloyd C. (A).....7610 Kipling, Detroit 2
Gwinn, Alexander B.....102 E. State St., Hastings
Heaslip, Jos. D.....Barry Co. Hlth. Center, Hastings
Huebner, R. J.....234 E. State St., Hastings
Logan, Wesley G.....City Bank Bldg., Hastings
Lofdahl, Stewart (R).....N. Main St., Nashville
Millard, James A.....303 Main St., Middleville
Morris, Edgar T. (L).....Nashville
Myers, Thos. W.....307 N. Main St., Nashville
Noah, Melvin L.....118 W. Main, Caledonia
Phelps, Everett L.....118 E. Walnut St., Hastings
Pryor, Robt. B.....234 E. State St., Hastings
Volkel, James.....303 Main St., Middleville
Wedel, Herbert S.....234 E. State St., Hastings

BAY-ARENAC-IOSCO COUNTY MEDICAL SOCIETY (22)

Alcorn, Kent A.....1420 Center Ave., Bay City
Alcorn, Marshall W.....1420 Center Ave., Bay City
Allen, Arthur D.....101 W. John St., Bay City
Asbury, Richard B.....2nd & Johnson Sts., Bay City
Asline, John N.....207 N. Walnut St., Bay City
Austin, Justus J.....Tawas City

Boatwright, D. C. (A).....4357 Mt. Foster Ave., San Diego 17, Calif.
Bowman, David A.....101 W. John, Bay City
Brinkman, Harvey H.....116 W. State St., East Tawas
Brown, Geo. M.....207 N. Walnut St., Bay City

Campbell, Donald A.....1109 N. Johnson, Bay City
Campbell, John S.....1838 McKinley Ave., Bay City
Chapin, Frdk. J.....2121 Center Ave., Bay City
Connelly, C. J.....1104 S. Madison Ave., Bay City
Cook, Hugh K.....101 W. John St., Bay City
Cook, Raymond R.....1115 Fifth Street, Bay City
Cooper, James C.....102 Woodside, Essexville
Cosens, Stanley A.....101 W. John St., Bay City
Crissey, Robt. R.....101 W. John St., Bay City
Criswell, Robt. H.....721 Washington Ave., Bay City

Dardas, Michael J.....605 5th Ave., Bay City
De Waele, Paul L.....1106 N. Johnson St., Bay City
Dolbee, Malcolm K.....Box 435, Standish

Ellison, Alfred, Jr.....101 John St., Bay City

Follis, Wm. M.....101 W. John St., Bay City

Gamble, Wm. G., Jr.....2010 5th Ave., Bay City
Gehman, J. R.....Standish
Geneczko, John T.....1102 Columbus Ave., Bay City
Grigg, John W. (A).....Harper Hospital, Detroit
Gunn, Robt. P.....200 Lafayette, Bay City

Hafford, Robert C.....101 W. John St., Bay City
Hagelshaw, Gayland L.....101 W. John St., Bay City
Hess, Chas. L. (R)....110 E. Coronado Rd., Phoenix, Ariz.
Heuser, Harold H.....916 Washington Ave., Bay City
Hickner, Lawrence P.....101 W. John St., Bay City
Horowitz, Saml. F.....1415 Center Ave., Bay City
Howland, Walter L.....P.O. Box 633, Pinconning
Huckins, Rodger S.....1802 Broadway, Bay City

Jacoby, Abraham H.....2202 Ninth St., Bay City
Jacques, J. E.....Tawas City
Jaffe, Martin D.....304 Davidson Bldg., Bay City
Jens, Otto F.....1506 Prairie St., Essexville
Johnson, Orlen J.....207 N. Walnut St., Bay City
Jones, M. Culver.....900 N. Jackson, Bay City

Kelly, Larry Stanley.....East Tawas
Kershul, Victor W. (A).....1128 W. Washington St., Ann Arbor
Kessler, Mana.....311 Center Ave., Bay City
Kessler, Sabina.....311 Center Ave., Bay City
Knobloch, Howard T.....1102 Columbus, Bay City
Kulinski, Eugene J.....601 Ames Ct., Bay City

Langin, John L.....100 15th St., Bay City
LaPorte, L. A.....308 Newman St., East Tawas

MacRae, Leonard D.....813 Sherman St., Bay City
Mayne, John C.....101 W. John St., Bay City
McDonnell, Walter R.....Pinconning
McGee, Harry B.....101 W. John St., Bay City
McGee, Peter L.....Davidson Bldg. Bay City
McSherry, Leo B., Jr.....1102 Columbus Ave., Bay City
Medvezky, Michael J.....1106 S. Madison Ave., Bay City
Miller, Edwin C.....101 W. John St., Bay City
Moeller, Arlyn.....102 Woodside, Essexville
Moore, Neal R.....704 N. Jackson, Bay City
Mosier, Dwight J.....101 W. John St., Bay City

Payea, Norman P.....217 Newman St., East Tawas
Pearson, Stanley M.....101 W. John St., Bay City
Pelczar, Walter E.....321 N. Johnson St., Bay City
Prophater, Robt. C.....2696 Westgate Dr., Bay City

Reddick, C. E.....Court House, Bay City
Reed, Wm. S.....1407 Center, Bay City
Reuter, Clarence W.....101 W. John St., Bay City
Rodda, E. R.....101 W. John St., Bay City
Rogers, Charles S.....101 W. John St., Bay City

Schmelzer, Wm. J.....602 Mercer St., P.O. 746, Pinconning
Shafer, Harold C. .....101 W. John St., Bay City
Shields, Hubert L.....101 W. John St., Bay City
Smith, J. Campbell.....R.R. 2, Tekonsha
Staley, Hugh O.....Omer
Standiford, David.....101 W. John St., Bay City
Stankey, Robt. M.....310 Pine St., Essexville
Stroia, Livius N.....101 W. John St., Bay City
Suter, Don E.....307 Davidson Bldg., Bay City
Sutton, R. L., Jr.....116 W. State St., East Tawas

Taheri, Zia E.....1411 Center Avenue, Bay City
Tarter, Clyde S.....1712 Center Ave., Bay City
Tompkins, Dana A.....Pinconning
Treadway, Gaylord.....900 N. Jackson, Bay City

Urmston, Paul R. (L)....916 Washington Ave., Bay City

Vail, Harry F.....812 N. Grant St., Bay City

Wilson, Thos. G. (R).....Venice, Florida
Woodburne, Harris L.....1420 Center St., Bay City
Wright, Thomas B.....101 W. John St., Bay City

Zaremba, Aloysius J. (L)....108 S. Madison Ave., Bay City
Ziliak, Alois L., Jr.....3393 Kiesel Rd., Bay City

BERRIEN COUNTY MEDICAL SOCIETY (26)

Bailey, John H.....2150 Samuel Ave., Benton Harbor
Beal, Gerald N.....Sheperd Benning Bldg., St. Joseph
Benner, Wm. H.....700 Empire Rd., Benton Harbor
Bliesmer, August F.....505 Pleasant St., St. Joseph
Bronfenbrenner, Jack.....687 E. Empire Ave., Benton Harbor
Bruni, John R.....1 South Fifth St., Niles
Butler, Wm. J.....Henry Ford Hospital, Detroit 2

Camp, Donald C.....8 N. St. Joseph Ave., Niles
Cawthorne, Harold J. (R).....239 Pipestone St., Benton Harbor
Chickering, Wm. A.....205 E. Delaware St., Benton Harbor
Cilella, S. G.....Pawating Hospital, Niles
Conway, Jos.....Watervliet
Conybeare, Robt. C.....756 Pipestone, Benton Harbor
Cooper, Wm. L.....Rt. 1, Paw Paw Island, Coloma
Crowell, Richard C.....519 Ship St., St. Joseph

Dalgleish, Archie J.....460 N. Main St., Watervliet

Eidson, Hazel D.....Berrien Springs
Elghammer, Richard M.....1106 Highland Ave., St. Joseph
Elliott, J. Colin.....802 E. Front St., Buchanan
Emery, Clayton S.....1020 Niles Ave., St. Joseph
Emery, Wm. K.....1020 Niles Ave., St. Joseph

Faber, Michael.....44 Elm St., Benton Harbor
Fattic, Grover R. Jr.....Box 427, Niles
Feeley, Marshall J.....2516 Niles Ave., St. Joseph
Feldmann, Robt. J.....2101 Chestnut, Philadelphia, Pa.
Friedman, Morris E.....Barton St., New Buffalo

Galles, James O.....Rte. 1, Paw Paw Island, Coloma
Garrett, Evan L.....P.O. Box 427, Niles
Gillette, Clarence (L).....R.F.D. No. 4, M-60W, Niles
Gould, Samuel.....127 E. Napier Ave., Benton Harbor
Grayson, Chas. J.....4 Maple St., Three Oaks
Green, Barbara G.....2600 Morton Street, St. Joseph
Green, Robt. L.....2600 Morton Street, St. Joseph
Grundset, Harold M.....Route 1, Box 265, Coloma
Gustin, Ralph D.....100½ Ferry St., Berrien Springs

Harrison, L. L.....304 Main Street, Niles

Hassan, D. Kent.....802 E. Front St., Buchanan
Hayes, Thos. P.....922 Main St., St. Joseph
Henderson, Fred C.....703 E. Main, Niles
Hershey, Noel J.....P.O. Box 222, Niles
Holt, Robt. E.....P.O. Box 222, Niles
Howard, Frank W.....756 Pipestone, Benton Harbor
Hudnutt, Dean.....811 Myrtle St., St. Joseph
Huff, Harold D.....126 Main St., Niles

Irgens, Edwin R.....910 Kingsley Ave., St. Joseph

Johnston, Wm. H.....2522 Niles Avenue, St. Joseph

Kelsall, Harvey I.....1600 Niles Ave., St. Joseph
Kenfield, W. J.....756 Pipestone, Benton Harbor
Kennedy, F. Alan.....239 Pipestone, Benton Harbor
King, Byron B.....687 Empire, Benton Harbor
King, Frank A., Jr.....169 Michigan St., Benton Harbor
Klos, Henry J.....2700 Highland Ct., St. Joseph

Landgraf, Robt. L.....P.O. Box 222, Niles
Leva, John B.....1122 Salem Ave., Benton Harbor
Lindenfeld, Fredk. H.....8 N. St. Joseph Ave., Niles
Lininger, Richard E.....2712 Highland Ct., St. Joseph

Manning, John T.....1611 Forres Ave., St. Joseph
May, A. J.....925 Pipestone St., Benton Harbor
McLelland, J. T.....Mercy Hosp. X-Ray Dept., Benton Harbor
McNabb, Arthur A.....469 Main St., Watervliet
Mesirow, Stanley M.....687 E. Empire Ave., Benton Harbor
Miller, Edward A. (R)....420 Kimmel St., Berrien Springs
Moore, T. Scott.....P.O. Box 416, Niles

Ozeran, Chas. J.....127 E. Napier, Benton Harbor
Padelford, Wm. J.....South Lyon
Peshka, David K.....P. O. Box 427, Niles
Polansky, Sanford.....84 W. Main St., Benton Harbor
Porter, Chas. B.....1589 Colfax Ave., Benton Harbor
Pritchard, Harold M.....502 Broadway, Niles
Rague, Paul O.....960 Agard, Benton Harbor
Ray, Dean K.....2522 Niles, St. Joseph
Reagan, Robt. E.....232 Windsor, Benton Harbor
Rice, Franklyn G.....324 N. Fourth St., Niles
Richmond, Dean M.....314 State St., St. Joseph
Ruth, J. Griswold.....507 Britain Ave., Benton Harbor

Skinner, James W.....460 Ridgeway St., St. Joseph
Smith, W. B.....239 Pipestone St., Benton Harbor
Sowers, Bouton F.....756 Pipestone, Benton Harbor
Strayer, John W.....P.O. Box 222, Niles
Stulik, Chas. K.....Town Line Rd., P.O. Box 98 Union Pier

Thorup, D. W.....756 Pipestone St., Benton Harbor

Urist, Maurice D.....454 Pipestone St., Benton Harbor

Valantiejus, John A.....R.R. 2, Cedar Lane Farm, New Buffalo
Vastine, Russell J., Jr.....430 W. Chicago, Buchanan

Westervelt, H. O.....539 Pearl St., Benton Harbor
Wilson, Clinton W.....925 Pipestone St., Benton Harbor
Winegar, Alvon C.....1531 E. Sunshine, Springfield, Missouri
Woodford, Hackley E.....191 Michigan St., Benton Harbor
Zick, Luther H.....2522 Niles Ave., St. Joseph

BRANCH COUNTY MEDICAL SOCIETY (30)

Aldrich, Napier S.....162 Marshall St., Coldwater
Andrews, Frank A.....R.R. 1, Anten Mills Ontario, Canada

Bacon, Chas.....300 E. Chicago, Coldwater
Bailey, James E., Jr. .....300 E. Chicago, Coldwater
Beck, Perry C.....Box 25, Bronson
Bien, Walter W. J. (L).....4 W. Chicago St., Coldwater

Coates, Carl A.....135 Stringtown, R.F.D. 1, Quincy
Culver, Bert W. (L).....72 Division St., Coldwater
Culver, Dean T.....173 E. Chicago St., Coldwater

Fraser, Robt. J.....22 W. Pearl St., Coldwater

Gomley, Henry C.....108 E. Chicago St., Bronson

Hamilton, Earl D.....St. Home Trng. Sch., Coldwater
Harris, Donald M.....35 S. Sprague St., Coldwater
Heffelfinger, John C.....292 E. Chicago Ave., Coldwater

Leitch, Robt. M.....304 N. Broadway, Union City
McLain, Richard W. (L)....37 Janoah Ave., Battle Creek
Meier, Harold J.....87 W. Pearl St., Coldwater
Mooi, Henry R.....20 Fairfield Dr., Coldwater
Moss, Harvey L.....86 W. Clarke, Coldwater
Nettleman, Wm. E.....136 E. Pearl St., Coldwater

Olmsted, Kenneth L.....70 Marshall St., Coldwater

Rennell, Edwin J.....Coldwater State Home, Coldwater
Rick, John J.....61 E. Chicago St., Coldwater

Southworth, Robt.....50 Division St., Coldwater

Thomas, James A.....390 E. Chicago St., Coldwater

Walton, Nathaniel J.....Quincy
Weidner, Harold R.....50 Division St., Coldwater
Wise, Robert.....St. Home Trng. Sch., Coldwater

CALHOUN COUNTY MEDICAL SOCIETY (34)

Albright, Arnold A.....401 Security Tower, Battle Creek
Allen, R. H.....191 College, Battle Creek
Amos, Norman H.....1708 Wolverine Tower, Battle Creek
Anderson, Harold E.....65 W. Michigan Ave., Battle Creek

Bakken, Richard L.....113 N. McCamly, Battle Creek
Barden, Stuart P.....Leila Hosp., Battle Creek
Baribeau, Roy H.....65 W. Michigan Ave., Battle Creek
Becker, Harry F.....Route 3, Box 303A, Battle Creek
Berghorst, John (A).....VA Hospital, Battle Creek
Bodine, Harold R.....1 W. Michigan Ave., Battle Creek
Bonifer, Philip P.....231 North Ave., Battle Creek
Boswell, David E.....105 N. Jefferson Ave., Marshall
Brainard, C. W...148 Wah Wah Tay Seeway, Battle Creek
Braverman, A. H. (A).....VA Hospital, Ft. Custer
Brown, Robt. W.....203 Capital Ave. N.E., Battle Creek

Campbell, Alice F.....103 E. Mulberry St., Albion
Campbell, Jack S.....1018 North Ave., Battle Creek
Campbell, Richard J.....140 Capital Ave. N.E., Battle Creek
Capron, M. J., Jr.....806 Security Bk. Bldg., Battle Creek
Caviness, L. Harold.....185 N. Washington, Battle Creek

Chandler, Edward M.....411 Mich. Nat. Bk. Bldg., Battle Creek
Chynoweth, Wm. R. (L).....207 Post Bldg., Battle Creek
Coakes, Jack E.....112 W. Mansion, Marshall
Colquhoun, Graham F.....25 W. Michigan Ave., Battle Creek
Cram, Ralph A.....Albion
Curry, Robt. K.....Homer

Daly, Harold L., Jr.....318 S. Superior St., Albion
Daly, Miriam I.....318 S. Superior, Albion
D'Aversa, Generoso.....705 Orchard Dr., Albion
Diamante, Paul J.....70 W. Michigan Ave., Battle Creek
Dickson, Albert R. (L)....250 Champion St., Battle Creek
Dodge, Warren M., Jr.....1207 Wolverine Tower, Battle Creek

Fairbanks, Stephen.....306 S. Superior, Albion
Ferazzi, Patrick S.....1018 North Ave., Battle Creek
Finch, Duward L.....719 Capital Ave. S.W., Battle Creek
Fisher, Robt. E.....1501 W. Michigan Ave., Battle Creek
Fraser, Robt. H.....25 W. Michigan Ave., Battle Creek
Funk, L. D.....Athens

Giddings, A. M. (L).....Battle Creek San., Battle Creek

Gilfillan, Margery J. (L).....Route No. 1, Richland
Girardot, J. J.....25 W. Michigan, Battle Creek
Graubner, Franklin L.....Bogar Theater Bldg., Marshall
Gray, J. Allan.....309 Mich. Nat'l. Bank, Battle Creek
Griffith, Jack C.....616 Mich. Nat. Bnk. Bldg., Battle Creek
Hamady, Alfred.....1018 North Ave., Battle Creek
Hansen, Edwin L.....216 North Ave., Battle Creek
Hansen, Harvey C.....65 W. Michigan Ave., Battle Creek
Haughey, Wilfrid (L).....610 Post Bldg., Battle Creek
Henderson, Philip M.....109 W. Erie, Albion
Henriksen, J. D.....236 Beckwith Dr., Battle Creek
Herman, Louis (A).....VA Hospital, Battle Creek
Hibbs, Donald K.....623 Post Bldg., Battle Creek
Holtom, Benj. G.....815 Security Tower, Battle Creek
Hubly, James W.....25 W. Michigan Ave., Battle Creek
Humphrey, Archie E.....864 E. Michigan St., Marshall
Humphrey, Arthur A.....175 College St., Battle Creek
Humphrey, Herbert E.....122 N. Madison St., Marshall
Jeffrey, James R. (L).....179 N. Washington Ave., Battle Creek
Jones, Ernest F. (A).....VA Hospital, Battle Creek
Jones, Tyre K.....118 W. Green, Marshall
Kavanagh, Thomas W.....513 Mich. Natl. Bk. Bldg., Battle Creek
Keagle, Leland R. (A).....196 North Ave., Battle Creek
Keeler, Kenneth B. (R)....Commercial Bk. Bldg., Albion
Kelleher, Geo. T.....235 North Ave., Battle Creek
Kimball, Arthur S., Jr.....1150 E. Michigan, Battle Creek
Kinde, Matthew R.....250 Champion, Battle Creek
Kingsley, Paul C.....191 College, Battle Creek
Klopp, Edward J.....173 College, Battle Creek
Knode, Robert.....407 Mich. Nat'l. Bank, Battle Creek
LaFrance, N. F. (A).....VA Hospital, Fort Custer
Lam, Francis L.....408 Capital Ave. S.W., Battle Creek
Lancaster, Vance B.....231 North Ave., Battle Creek
Lentz, Carlisle S. (A).....27 Orchard Place, Battle Creek
Levine, S. L. (A).....VA Hospital, Battle Creek
Levy, Jos., Jr.....231 North Ave., Battle Creek
Lewis, Welcome B. (L).....196 Irving Park Drive, Battle Creek
Long, Walter B.....Homer
Lowe, Kenneth H.....231 North Ave., Battle Creek
Lowe, Stanley T.....231 North Ave., Battle Creek
Lund, C. A. E.....96 E. Jackson Street, Battle Creek
Lynk, Stanley M. (A).....4589 Lippincott, Lapeer
Marino, Salvatore G. (A).....VA Hospital, Lebanon
McCuaig, Alfred G.....719 Capitol St. S.W., Battle Creek
Meister, Franklin O.....5450 El Jardin, Long Beach 15, Calif.
Melges, Fredk. J.....25 W. Michigan Ave., Battle Creek
Mitton, Orland W. (R).....1408 Arizona N.E., Albuquerque, N. Mex.
Morrison, Donald B.....719 Capitol S.W., Battle Creek
Mullenmeister, H. F.....275 Capital, N.E., Battle Creek
Mustard, Russell L.....25 W. Michigan Ave., Battle Creek
Norgan, Anne F.....719 Capital Ave. S.W., Battle Creek
Orr, Eli H. (A).....VA Hospital, Battle Creek
Parkinson, Chas. E.....Leila Hospital, Battle Creek
Parsons, Richard C.....513 Mich. Nat. Bnk. Bldg., Battle Creek
Patrick, Gilbert T.....25 W. Michigan Ave., Battle Creek
Pearson, Donald J.....255 North Ave., Battle Creek
Pier, Clarence T. (A).....VA Hospital, Battle Creek
Powell, C. E.....37 Capital Ave. N.E., Battle Creek
Power, John R.....140 Capital Ave. N.E., Battle Creek
Reizner, Bernard Z.....Sheldon Memorial Hosp., Albion
Robbert, John.....191 College, Battle Creek
Rorich, Wilma C. W.....166 N.E. Capitol, Battle Creek
Rowan, Russell C.....205 S. Superior St., Albion
Royer, Clark W.....1331 W. Michigan Ave., Battle Creek
Ryan, Chas. J.....Leila Hosp., Battle Creek
Sharp, Ara D. (R).....502 Irwin Ave., Albion
Shellenberger, H. M.....Box 168, Marshall
Shipp, Leland P.....25 W. Michigan Ave., Battle Creek
Sibilsky, A. Clark (A).....Veterans Administration, Battle Creek
Simpson, Robt. S.....700 Capital Ave. S.W., Battle Creek
Slagle, Geo. W.....203 Capital Ave., N.E., Battle Creek
Sleight, James D.....25 W. Michigan Ave., Battle Creek
Smith, Dunbar W.....138 Oaklawn Ave., Battle Creek
Smith, Joseph S. (A).....VA Hospital, Battle Creek
Spencer, Collis M.....308 S. Superior St., Albion
Stadle, Wendall H. (R).....607 Jennings Landing Gougac Lake, Battle Creek
Stephenson, C. D.....140 Capital Ave. N.E., Battle Creek
Stiefel, Richard A.....25 W. Michigan Ave., Battle Creek
Strohmenger, Frank J.....400 S. Superior St., Albion
Taylor, Clifford B.....308 S. Superior St., Albion
Tazelaar, Myron A.....219 N. Madison St., Marshall
Vander Kamp, Harry (A).....VA Hospital, Battle Creek
Vander Voort, Wm. V. (L).....179 N. Washington Ave., Battle Creek
Van Sandt, M. M. (A)....Fed. Civil Defense, Battle Creek
Verity, Lloyd E.....1002 Security Tower, Battle Creek
Vetne, Gunnar.....298 W. Van Buren St., Battle Creek
Walker, Chas. S.....709 W. Van Buren St., Battle Creek
Walters, John F.....41 N. Washington, Battle Creek
Walters, Wm. D.....175 College St., Battle Creek
Way, Kenneth E. (A).....2996 Meadowbrook Blvd., Cleveland Hts., Ohio
Wemmer, Keith S.....1472 W. Michigan Ave., Battle Creek
Wencke, Carl G.....1009 Security Tower, Battle Creek
Winslow, Sherwood B.....25 W. Michigan, Battle Creek
Worgess, Duane R...165 Capital Ave., N.E., Battle Creek
Yannitelli, S. A.....1331 W. Michigan, Battle Creek
Zaplitny, R. B.....1704 Wolverine Fed. Tr., Battle Creek
Zaplitny, Sophia.....34 Ardmoor, Battle Creek
Zheutlin, Bertram.....50 Adams St., Battle Creek
Zindler, Geo. A.....1201 Security Bnk. Bldg., Battle Creek

CASS COUNTY MEDICAL SOCIETY (38)

Adams, Uriah M.....Marcellus
Clary, Rudolph I.....216 S. Front St., Dowagiac
Comstock, L. David, Jr.....216 S. Front, Dowagiac
Hickman, John K.....108 W. Division St., Dowagiac
Loupee, Geo. E.....110 W. Division St., Dowagiac
Loupee, Sherman L. (L)....110 W. Division St., Dowagiac
Nakas, Osvaldes.....R.R. 1, Cassopolis
Pierce, Frank L. (L).....142 S. Front Street, Dowagiac
Pierce, Kenneth C.....414 McPhil St., Dowagiac

CHIPPEWA-MACKINAC COUNTY MEDICAL SOCIETY (42)

Allott, Hugh R.....816 Ashmun St., Sault Ste. Marie
Bandy, Festus C. (R)....2431 Hamlin Lane, Sarasota, Fla.
Blair, H. Milton.....300 Court St., Sault Ste. Marie
Cantwell, Earl K.....300-306 Court St., Sault Ste. Marie
Clausen, Claire H.....300 Court St., Sault Ste. Marie
Duvall, Dorothy V.....520 Division, Sault Ste. Marie
Finlayson, Donald D.....301 E. Spruce St., Sault Ste. Marie
Futterer, LeRoy A. (A).....538 U.S. 10, Sanford
Gates, Irene.....Cedar Pointe, Mackinac Island

Goldberg, Abraham H.....310 Ashmun, Sault Ste. Marie
Hagele, Marie A.....126 Park Pl., Sault Ste. Marie
Hamel, Herbert E.....St. Ignace
Harrington, Harvey M. (L).....816 Ashmun St., Sault Ste. Marie
Howe, Donnell C., Jr.....300 Court St., Sault Ste. Marie
Howe, Gertrude E.....Box 273, Fish Creek, Wisconsin
Mackie, Thos. B.....300 Court St., Sault Ste. Marie
Mertaugh, Wm. F.....104 W. Spruce St., Sault Ste. Marie
Montgomery, Benj. T.....812 Ashmun St., Sault Ste. Marie
Rhind, Earl S.....Sault Polyclinic, Sault Ste. Marie
Solomon, Joseph A.....Mackinac Island
Thompson, Chas. F.....Drummond Island
Trapasso, Tony J.....816 Ashmun St., Sault Ste. Marie
Venier, Anton G.....816 Ashmun St., Sault Ste. Marie
Yale, Ira V. (L).....200 Ashmun St., Sault Ste. Marie

CLINTON COUNTY MEDICAL SOCIETY (46)

Bennett, Geo. W.....203 W. Main St., Elsie
Cook, Bruno C.....Westphalia
Elliott, Bruce R.....Box 369, Ovid
Fillinger, Wells B. (L).....Ovid
Foo, Chas. T. (L).....108 E. McConnell, St. Johns
Grost, James M.....110 Oakland Street, St. Johns
Henthorn, Arthur C. (L).....4611 N. U.S. 27, St. Johns
Luton, Frank E. (L).....Beaver Island, St. James
McWilliams, Wm. B.....Maple Rapids
Russell, Sherwood R.....104 N. Oakland, St. Johns
Scott, James S.....Dewitt
Sheline, Victor L.....Medical Center, Ithaca
Slagh, Earl M.....Elsie
Smith, Franklin W.....105 S. Ottawa, St. Johns
Stephenson, Wesley F.....510 Walker St., St. Johns
Stoller, Paul F.....St. Johns

DELTA-SCHOOLCRAFT COUNTY MEDICAL SOCIETY (50)

Anderson, Francis C.....218 S. 10th St., Escanaba
Benson, Gilbert W. (A).....Ludington St., Escanaba
Bernier, A. Barroso.....547 Michigan Ave., Manistique
Boyce, Donald H.....1107 Ludington St., Escanaba
Dehlin, James R.....8 S. 11th St., Gladstone
Fyvie, James H.....202 S. Cedar St., Manistique
Groos, Harold Q.....1015 S. 1st Ave., Escanaba
Groos, Louis P.....1015 S. 1st Ave., Escanaba
Hult, Otto S.....1005 Delta Ave., Gladstone
Jenke, Albert.....738 Lake Shore Dr., Escanaba
LeMire, Donald F.....1104 S. First Ave., Escanaba
LeMire, William A.....1106 First Ave. S., Escanaba
Lindquist, Norman L.....205 S. Tenth St., Escanaba
Maniaci, Geo.....8 South 11th St., Gladstone
McInerney, Thos. A.....1221 Ludington St., Escanaba
Miller, Albert H. (L).....904 Wisconsin, Gladstone
Nagy, Chas. J.....Bark River
Olson, Carl J.....8 S. 11th St., Gladstone
Ryde, Robt. E.....1221 Ludington, Escanaba
Waters, Duane L.....200 S. Cedar St., Manistique
Wehner, Merle E.....131 River St., Manistique
Whipple, Arno.....117 North 22nd St., Escanaba

DICKINSON-IRON COUNTY MEDICAL SOCIETY (54)

Addison, Earl R.....412 Superior Ave., Crystal Falls
Alexander, Wm. H.....411 East C St., Iron Mountain
Anderson, Donald T.....408 Hamilton Ave., Kingsford
Boyce, George H. (L).....First Natl Bank Bldg., Iron Mountain
Carlson, Ralph E.....500 Stephenson Ave., Iron Mountain
Cecconi, R. D.....Commercial Bank Bldg., Iron Mountain
Cooper, Chas. A.....Box 542, Stambaugh
Dittrich, Raymond J.....Commercial Bnk. Bldg., Iron Mountain
Gladstone, Wm. R., Jr.....804 Main St., Norway
Hayes, Willard N.....720 N. Main St., Norway
Huron, Willis H.....106 West B St., Iron Mountain
Irvine, Lionel E.....Box 438, Iron River
Klaus, Cyril D. (A).....208 E. Hugitt, Iron Mountain
Kofmehl, Wm. J.....Stambaugh
McEachran, Hugh D.....500 Stephenson Ave., Iron Mountain
Nora, James C.....15 Eighth Avenue, Iron River
Palm, E. Theodore.....412 Superior Ave., Crystal Falls
Retallack, Russell C.....326 W. Genesee St., Iron River
Schmutzler, Walter A.....373 Woodward St., Iron Mountain
Schroeder, John M.....Khoury Bldg., Iron Mountain
Smith, Donald R.....Box 471, Iron Mountain
Steinke, Chas. G.....517 Stephenson Ave., Iron Mountain

EATON COUNTY MEDICAL SOCIETY (58)

Arner, Fred L.....Bellevue
Berden, Eleanor A.....2630 Libbie Drive, Lansing 17
Brown, Byron P.....339 S. Cochran, Charlotte
Carothers, Danl. J.....315 S. Cochran, Charlotte
Cook, J. Maxwell.....144 S. Cochran St., Charlotte
DeLand, C. LeRoy.....Olivet
Engle, Paul H. (A).....Olivet
Garlock, Fred C.....406 E. Jefferson St., Grand Ledge
Hannah, Harry W.....R.F.D. 3, Charlotte
Harrod, Gordon R.....Grand Ledge
Imthun, Edgar F.....113 E. Jefferson, Grand Ledge
Landick, Robt. E., Jr.....111 S. Cochran St., Charlotte
Matthews, R. W.....236 S. Main Street, Charlotte
Meinke, Albert H., Jr.....702 S. Main, Eaton Rapids
Myers, Albert W.....Potterville
Riley, Jos. L.....201 S. Cochran St., Charlotte
Robinson, S. R.....1140 Willow St., Grand Ledge
Sevener, Lester G.....236 S. Main St., Charlotte
Sherman, Eber B.....210 Broad St., Eaton Rapids
Van Ark, Bert.....123 N. East St., Eaton Rapids
Van Ark, Herman F.....Eaton Rapids
Whitlock Stanley C.....Dimondale
Willits, Clayton O.....127 Upland, Charlotte

GENESEE COUNTY MEDICAL SOCIETY (62)

Adams, Burnell H.....609 S. Lynch St., Flint 3
Adams, Chester H.....1114 Beach St., Flint 3
Allard, Pierre Paul (A).....90 Main Street, Alymer, Quebec, Canada
Anderson, Harley H.....11280 N. Saginaw, Mt. Morris
Anderson, John L.....2765 Flushing Rd., Flint 4
Anderson, Robt. E.....3002 Mason St., Flint
Andrews, Nelson A. C.....310 E. Main St., Flushing
Anthony, Geo. E. R.....1015 Detroit St., Flint 4
Baird, W. Claire.....2765 Flushing Rd., Flint
Bald, Fredk. W.....503 S. Saginaw St., Flint 3
Barbour, David A.....17071 Marlowe Dr., Flint 4
Barbour, Fleming A.....2015 Lincoln Dr., Flint 3
Baske, Franklin W.....923 Maxine St., Flint 3
Batdorf, John W. (A).....1925 Park Forest Dr., Flint
Batdorf, Joseph T.....Goodrich Hospital, Goodrich
Bateman, Lawrence G.....1928 Lewis St., Flint 6
Beck, Douglass R.....1450 Country View Ln., Flint 7
Becker, Eugene B.....2765 Flushing Rd., Flint 4
Benkert, Jack.....6211 Lake Forest Dr., Grand Blanc
Benson, John C., Jr.....402 W. 2nd St., Flint 3
Bentley, Robert H. (A).....314 W. Paterson, Flint 3
Berman, Harry.....3309 Fenton Rd., Flint 7
Bernstein, Eli N.....108 E. Kearsley St., Flint 3,
Best, J. A.....3801 Clio Road, Flint 4
Beyer, Geo. D.....145 W. Vienna St., Clio
Bishop, Don L.....2226 Detroit St., Flint 5
Blain, Claude (A).....125 N. Marlborough, Cornwall, Ontario 9, Canada
Bogart, Leon M. (L).....503 National Bldg., Flint
Boles, Wm. P.....714 Beach St., Flint 3
Bradley, Robt. M.....1112 Mott Fnd. Bldg., Flint 2
Brain, Roy G.....460 S. Saginaw St., Flint 3
Branch, Hira E.,.....1014 Woodside Dr., Flint 3
Brasie, Donald R.....310 Josephine St., Flint 4
Briggs, Guy D. (L).....224 E. Court St., Flint 3
Brown, Clarence A.....3805 Greenbrook Lane, Flint 7
Bruce, Wm. W. (A)..Jackson Memorial Hosp, Miami, Fla.
Bryant, Donald R.....621 Mott Fdn. Bldg., Flint
Buchanan, Gerald S.....211 S. Saginaw St., Holly
Buchanan, Wm. F.....238 W. Caroline, Fenton
Burkett, Leslie V.....202 County Office Bldg., Flint 3
Campbell, Wm. R. (A).....1006 Prospect St., Flint
Caster, Elisha W. (L).....19354 James Couzens Hwy., Detroit 35
Chambers, Myrton S.....3402 Westwood Pkwy., Flint 3
Chase, Wm. D.....1318 N. Ballenger Hwy., Flint 4
Clark, Clifford P. (L).....11111 S.W. 62nd Ave., Miami 43, Fla.
Clark, Robt. L.....1301 Flushing Rd., Flint 4
Collins, James I.....G 1128 N Dye Road, Flint
Colwell, Clifford W.....328 S. Saginaw St., Flint 3
Conover, Geo. V.....207 Genesee Bank Bldg., Flint 2
Conover, McClellan B.....724 East Street, Flint 3
Conover, Thaddeus S.....724 East St., Flint 3
Cook, Henry (L).....709 Genesee Bank Bldg., Flint 2
Coriasso, Louis B.....614 Odette, Flint 4
Covert, Floyd L. (L).....116 Lord St., Gaines
Cox, J. Bruce (A).....432 Grenfell Ave., Montreal, Canada
Coyne, K. M.....2765 Flushing Rd., Flint
Craig, William G.....3026 Beecher Rd., Flint
Credille, Barney A.....346 S. Saginaw St., Flint 3
Cross, Robert L. (A).....401 S. Ballenger Rd., Flint
Curry, Geo. J.....346 Saginaw St., Flint 3
Curtin, John H.....1300 N. Dort Hwy., Flint 2
Cutler, G. Campbell.....2415 Detroit St., Flint
Davis, Robt. C.....G 3029 Flushing Rd., Flint 4
Dawson, Ralph E.....111 Med. Arts Bldg., Flint 4
Day, John Murray.....2765 Flushing Rd., Flint 4
Delzingro, Nicholas.....328 Main St., Davison
Dettman, Carlton K.....Nanita Dr., Montrose
Dickstein, Bernard.....460 S. Saginaw St., Flint 3
Dimond, Edwin G. (L).....346 S. Saginaw St., Flint 3
Dodds, Fredk. E.....1336 Lewis St., Flint 6
Dodds, Max E.....460-464 S. Saginaw St., Flint 3
Dooley, James F.....2019 Gold Avenue, Flint
Dorsey, Philip W.....2765 Flushing Rd., Flint 4
Drewyer, Glenn E.....5327 W. Reid St., Swartz Creek
Drouin, J. E. (A).....P.O. Box 940 Buckingham, Quebec, Can.
Dykewicz, Richard A.....2765 Flushing Rd., Flint 4
Eaton, Wayne L.....2765 Flushing Rd., Flint
Eichhorn, Ernest M.....2765 Flushing Rd., Flint 4
Eickhorst, Thos. N.....1604 Mott Fdn. Bldg., Flint 2
Elliott, Hardie B., Jr.....503 S. Saginaw St., Flint 3
Engelman, Raymond M.....112 Medical Arts Bldg., Flint 4
Ettinger, Ralph D.....111 Walnut St., Fenton
Fan, Q. C.....2002 E. Court St., Flint
Farah, Ben S.....2765 Flushing Rd., Flint 4
Farhat, Maynard M.....505 W. Court St., Flint
Fee, Manson G.....108 E. Kearsley St., Flint 3
Ferris, James W.....426 N. State St., Davison
Finkelstein, Theo.....1415 Broadway Blvd., Flint 6
Forrer, Graydon R.....307 E. Court St., Flint 3
Fuller, Harvey T.....820 Genesee St., Mt. Morris
Gelenger, Stephen M.....2125 Detroit St., Flint 5
Goering, George R. (L).....519 Dryden Bldg., Flint
Goetz, Margarete M. (A).....420 Genesee Bank Bldg. Flint
Goetz, Rudolph.....1221 Church St., Flint
Golden, Evelyn.....218 E. Court St., Flint
Golden, H. Maxwell.....218 E. Court St., Flint 3
Goodfellow, Benj. T. (L).....506 Page St., Flint 5
Gorne, Saul S.....619 Clifford St., Flint 3
Gould, David (A).....461 P. Renwood, Euclid 23, Ohio
Grady, Donald R.....1515 Woodslee Dr., Flint 3
Griffin, Ernest P., Jr.....1505 Arrow Lane, Flint 7
Grover, Harold F.....601 S. Saginaw St., Flint 3
Gumpper, C. R.....4430 Morrish Rd., Swartz Creek
Gundry, Geo. L.....Grand Blanc
Gutow, Isadore H.....2765 Flushing Rd., Flint 4
Gutow, Julius J.....726 Church Street, Flint
Guyon, Jos. F.....302 W. Pierson Rd., Flint 5
Guyon, Mary A. W.....302 W. Pierson Rd., Flint 5
Hackley, Richard D.....3942 Western Rd., Flint
Hague, Robt. F.....210 E. Court St., Flint 3
Hallitt, John A.....366 Bradley, Flint
Hamady, Ruth B.....228 Welch Blvd., Flint
Hanley, William J. (A)..Ridge Crest Dr., Beaver Dam, Ky.
Harper, Robt. H.....703 Thomson St., Flint 3
Harris, Bernard J.....4021 Greenbrook, Flint
Hauser, Fredk. V.....1015 Mott Fndn. Bldg., Flint 2
Hawkins, James E.....4618 Roberts St., Flint
Heinemann, Herman H.....1809 Greenbriar Lane, Flint 7
Hennessy, Charles R.....517 Mott Fndn. Bldg., Flint
Herrington, K. B. (A)....5274 Durwood Drive, Swartz Creek
Hiscock, Harold H.....503 S. Saginaw St., Flint 3
Hockman, Thomas A.....1513 Winona, Flint
Hodges, Frank V.....Hurley Hospital, Flint 2
Hoffman, John Wm. (A).....1505 Bent Drive, Flint
Homeister, E. A.....18721 Koester, Riverview
House, Robert J.....3133 Mackin Rd., Flint
Hubbard, Wm. B.....1205 Maxine St., Flint 3
Hufton, Wilfrid L.....2765 Flushing Rd., Flint 4
Hurd, Clayton E.....300 Roberts St., Fenton
Irish, Lawrence R.....348 Sheffield Street, Flint
Iung, Omero S. (A).....2018 Castle Lane, Flint
Jaarsma, Raymond A.....Flint Med. Arts Bldg., Flint 4
James, Robt. E.....3001 S. Saginaw St., Flint
Johnson, A. H., Jr.....3219 North St., Flint 5
Johnson, Frank D.....653 S. Saginaw, Flint 3
Johnson, Raymond E.....5173 W. Reid Rd., Swartz Creek
Judd, Alvin E.....2315 Davison Rd., Flint 6
Kaufman, Lewis D.....4002 N. Saginaw St., Flint 5
Kimbrough, C. B.....1402 S. Saginaw St., Flint 3

Kitto, Harold J.....902 Stockdale, Flint
Kline, O. F.....2765 Flushing Rd., Flint 4
Knapp, Wm. D.....503 S. Saginaw St., Flint 3
Knights, Edwin M., Jr.....Hurley Hosp., Flint
Koop, Chester S.....2503 Detroit St., Flint 5
Kretchmar, Arthur H.....460 S. Saginaw, Flint 10
Kurtz, John J. (L).....601 S. Saginaw St., Flint 3
Laird, James I.....10114 Main St., Goodrich
Larose, Claude (A).....McLaren Gen. Hosp., Flint 2
Leber, Stanley M. (A)....2605 Century, Houston 5, Texas
Leach, J. Leonidas.....3007 Industrial Ave., Flint
Le Mieux, Leslie L.....701 W. Dayton St., Flint 4
Lewis, Thos. E.....3520 Richfield Rd., Flint 6
Lightfoot, Arthur S.....101½ E. Flint Pk. Blvd., Flint
Limbach, David R.....900 Begole St., Flint 2
Lindman, Thomas C.....508 Fremont St., Flint
Livesay, Jackson E.....503 S. Saginaw, Flint 3
Longfield, Gordon M. (A).....1918 Castle Lane, Flint
Lundeen, Richard M.....3046 Canterbury Lane, Flint
Lusk, John A.....10114 Hegel Road, Goodrich
Lyttle, Sydney N.....503 S. Saginaw St., Flint 3
MacGregor, Delbert M.....701 W. Dayton St., Flint 4
MacKenzie, J. W., Jr.....5397 Miller Road, Swartz Creek
Macksood, Jos. A.....2501 N. Saginaw St., Flint 5
Mangelsdorf, C. H.....4122 Brownsell, Flint
Manwaring, John T.....565 Welch Blvd., Flint 3
Markunas, Paul J.....4002 N. Saginaw St., Flint
Martin, James A.....822 S. Leroy, Fenton
Mason, Donald V. (A).....Hurley Hospital, Flint
Mathias, Berton J.....1301 Flushing Rd., Flint 4
Matthews, W. N. (A).....1220 Welton St., London, Ontario, Canada
McAlindon, J. D.....1612 Seminole St., Flint
McClellan, Junius W.....Buick Motor Division, Flint 7
McGarry, Burton G. (L).....Burns St., Howell
McGarry, Roy A. (L).....601 S. Saginaw St., Flint 3
McKenna, Oscar W. (L).....520 E. Third St., Flint 3
McLeod, Kenneth W. A.....2765 Flushing Road, Flint 4
McMurray, Richard J.....2765 Flushing Rd., Flint
McTaggart, David.....312 Patterson Bldg., Flint
Mendrek, H. H.....1634 Mott Fndt. Bldg., Flint 2
Merchun, Frank A. (A).....916 W. 8th Ave., Flint
Michael, Sidney R.....907 Welch Blvd.. Flint 4
Michels, Robt. M.....409 McKinley Rd., Flushing
Michelson, Richard B.....5001 N. Saginaw St., Flint
Miller, Edwin E. (L).....5903 48 Street N.E., St. Petersburg, Fla.
Miller, Loren E.....2645 Corunna Rd., Flint 3
Miltich, Anthony J.....915 S. Grand Traverse, Flint 3
Moore, Glenn E.....323 W. Second, Flint 3
Moore, Wesley P.....802 Tilden, Flint 5
Morrison, Wm. H.....205 Perry Rd., Grand Blanc
Morrissey, Vaughn H.....101 Stockdale St., Flint 4
Mosier, Edward C.....115 Lake St., Otisville
Murphy, E. Grant.....1825 Chelsea Circle, Flint 3
Murphy, Thomas W. (A).....631 E. Davenport St., Iowa City, Iowa
Neiswander, Paul L.....Fisher Body Div. GMC, Grand Blanc
Nicholls, Wm. W.....1301 Flushing Rd., Flint 4
Nitz, Donald A.....3337 W. Vienna Road, Clio
Odle, Ira D. (L).....201 Welch Blvd., Flint 4
O'Meara, Bernard B. (A).....1374 Boseline Rd., Ottawa, Ontario, Canada
Orr, John W. (L).....Orrs Pt. Lk. Fenton, Fenton
Osher, Seymour L.....2113 E. Second St., Flint 3
Parliament, Burt A.....314 Ferndale Pl., Flint 3
Paul, Joseph E.....1650 Miller Rd., Flint 3
Pfeifer, Archibald C. (L).....12205 N. Saginaw, Mt. Morris
Phelps, Lynn A.....Goodrich Genl. Hosp., Goodrich
Phillips, Robt. L. (L).....Bay View Pkwy., Nokomis, Fla.
Pickering, Woodrow H.....1602 Ballenger Hwy., Flint 4
Pike, Wallace W.....7514 Miller Rd., Swartz Creek
Polich, John J.....1010 W. Pasadena, Flint
Portney, Jack E.....428 Stevens St., Flint 3
Pratz, Oliver C.....1303 Detroit St., Flint 4
Preston, Otto J.....300 N. Chevrolet Ave., Flint 2
Prior, Richard W.....707 Park St., Fenton
Purcell, F. L.....Ternstedt Plant, Flint 5
Quin, John, Jr. .....2765 Flushing Rd., Flint 4
Ragan, Russell M.....McLaren Gen. Hosp., Flint
Rapport, Richard L.....503 S. Saginaw, Flint 3
Rathburn, Robert J. (A).....1501 Flushing Rd., Flint 4
Rawling, John C.....115 Med. Arts Bldg., Flint 4
Rawlings, J. Mott.....1601 Neome Dr., Flint 3
Reed, James E. (A).....Apt. 28, 1226 Vincent, Flint
Reid, John H.....627 Campbell St., Flint
Rice, Alan K. (A).....7610 Kipling Ave., Flint 6
Rieth, Geo. F.....1406 Davison St., Flint 6
Roberts, Floyd A. (L).....428 Thompson St., Flint
Rowe, John B.....653 Saginaw St., Flint 3
Rulney, Max.....2765 Flushing Road, Flint 4
Rundles, Walter Z., Jr.....500 Grand Traverse St., Flint 3
Rundles, Walter Z.....500 Grand Traverse St., Flint 3
Sandberg, Russell G.....2030 Pierce St., Flint 3
Sandy, Kenneth R.....2701 Detroit St., Flint 5
Scavarda, Chas. J.....2101 E. Court St., Flint 3
Schiff, Benton A.....323 W. 2nd St., Flint 3
Schmidlin, Robt. W.....3710 Davison Rd., Flint 6
Schreiber, E. Oskar.....2765 Flushing Road, Flint 4
Schroeder, Paul E.....907 Welch Blvd., Flint 4
Schultz, J. Stanley.....3327 Fleming Rd., Flint 4
Schwartz, John M.....4300 S. Saginaw St., Flint 2
Schwarz, Heinz H.....1430 Eldorado, Flint
Scott, Robt. D. (L).....1215 Detroit St., Flint 4
Seven, Phillip G.....2301 Cummings, Flint
Seymour, Geo. D.....Professional Bldg., Clio
Shantz, Leighton O.....2026 Calumet St., Flint 3
Sheeran, Danl. H.....346 S. Saginaw St., Flint 3
Sherwood, Frederick.....610 Mott Foundation Bldg., Flint
Shipman, Chas. W.....325 E. 1st St., Flint 3
Simoni, Lewis E.....3210 S. Dort Hghwy., Flint 7
Sirna, Anthony R.....2709 Thomas St., Flint 4
Smith, Eugene C.....503 S. Saginaw St., Flint 3
Smith, Harold O.....1952 Miller Rd., Flint 3
Smith, Maurice J.....2801 N. Saginaw St., Flint 5
Sniderman, Benj. F.....727 Beach St., Flint 3
Snyder, Chas. E.....Swartz Creek
Sorkin, Morris L.....718 Beach St., Flint 2
Sorkin, Saml. S.....718 Beach St., Flint 2
Sparks, Harvey V.....2765 Flushing Rd., Flint 4
Steffe, Ralph S.....2765 Flushing Rd., Flint 4
Steinman, Floyd H.....503 S. Saginaw St., Flint 2
Stevens, Philip K.....1626 S. Saginaw, Flint 3
Stevenson, B. M., Jr. (A).....1010 W. 6th Ave., Flint
Stevenson, Wm. W. (L).....108 E. Kearsley St., Flint 3
Streat, Rudolph W.....218 E. 8th St., Flint 3
Stroup, Clayton K.....2002 E. Court St., Flint 3
Sullivan, M. R.....1510 Forest Hill, Flint
Sutherland, James K.....402 E. 3rd St., Flint 3
Sutton, Geo. D. (L).....303 W. Court St., Flint 3
Tauscher, John W. (A).....809 Patrick Street, Flint
Theuerle, Walter I.....3101 N. Saginaw St., Flint 5
Thompson, Charles A.....4034 Donnelly, Flint 4
Thompson, Jack W.....2702 Flushing Rd., Flint 4
Thorburn, Grant (L).....1602 W. Genesee St., Flint 4
Tofteland, Elmer H.....2765 Flushing Rd., Flint 4
Tower, Rita B.....702 Ballinger Rd., Flint 7
Trewin, Merle L. (A).....2725 Fielding, Flint 3
Turcke, Allen F.....5717 Maria, Flint 5
Turner, Merald G.....601 S. Saginaw St., Flint 2
Tuuri, Arthur L.....Mott Children Clinic, Flint
Van Alst, Dennis E. (A).....2408 Missouri Ave., Flint
Van Harn, Raymond S.....1651 Detroit St., Flint 5
Varney, Howard L.....1415 Broadway, Flint 6
Vaughan, Edgar J.....Linden
Wade, Franklin V.....1303 Mott Fndt. Bldg., Flint 2
Walcott, Carver G.....201 E. Carolina St., Fenton
Ward, Nell M. (L).....503 S. Saginaw St., Flint 3
Ware, Frank A.....2765 Flushing Rd., Flint 4
Wark, David R.....1315 Detroit St., Flint 4
Weber, Robt. M.....3710 Davison Rd., Flint 6
Webster, Robt. M.....Hurley Hosp., Flint
Wentworth, John E.....1651 Chevrolet Ave. N., Flint 4
Weresh, John D. (M).....409 Crombie, Atlantic, Iowa

Werness, Inga W. (L).....205 Paterson Bldg., Flint
Wheeler, J. D.....2470 Nolen, Flint
White, Carl H.....106 River St., Fenton
White, Herbert T. (L).....1620 Mason St., Flint
White, Frank T.....227 Juniper Drive, Davison
Willard, Robt. H.....718 Beach St., Flint 3
Williams, T. Wendell.....5003 N. Saginaw, Flint
Williams, Wm. S.....G 3398 S. Saginaw St., Flint 7
Willis, Robert E.....5003 N. Saginaw, Flint
Willoughby, L. L. (L).....1127 S. Water St., Marine City
Wills, Thos. N.....Chicaugoan Lake, Crystal Falls
Winchester, Walter H. (L).....515 Genesee Bank Bldg., Flint
Wolcott, Nan D.....7506 Lapeer Rd., Davison
Woughter, Harold W.....503 S. Saginaw St., Flint 3
Wright, Donald R.....326 W. Court St., Flint
Wynia, Robert E. (A).....910 Cottage Grove Ave., Flint
Young, Charles R. (A).....816 Frazier, Topeka, Kansas
Zeis, Myron G.....718 Beach St., Flint 2

GOGEBIC COUNTY MEDICAL SOCIETY (66)

Albert, Saml. G.....103 Suffolk St., Ironwood
Benetti, Arthur F.....3211 Lindla Vista, Des Moines, Ia.
Davidson, Donald L.....200 S. Sophie St., Bessemer
Franck, John R., Jr.....401 Sunday Lake, Wakefield
Gertz, Michael A.....109 E. Aurora St., Ironwood
Gingrich, Wayne A.....109 E. Aurora St., Ironwood
Gorilla, Allen C.....210 Suffolk St., Ironwood
Harrington, Rex R., Jr.....104 E. Ridge St., Ironwood
Keskey, Theodore J.....205 West Coolidge, Ironwood
Lieberthal, M. J.....P.O. Box 632, Ironwood
Lieberthal, Paul R.....Box 632, Ironwood
Medford, Lester .....306 Sunday Lake, Wakefield
Murphy, Percy J.....Seaman Bldg., Ironwood
Santini, Florian J.....109 E. Aurora St., Ironwood
Wacek, William H.....809 Sunset Road, Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE COUNTY MEDICAL SOCIETY (70)

Beall, John G.....118 E. Front, Traverse City
Behan, Gerald W.....Box C, Traverse City
Benjamin, Mac B.....Traverse City St. Hosp., Traverse City
Bolan, Ellis J.....Suttons Bay
Brownson, Kneale M.....116 Cass St., Traverse City
Brunk, Clifford F.....Rt. 1, Box 279, Traverse City
Bushong, Benj. B.....116 Cass St., Traverse City
Cajigas, Tomas R.....J. D. Munson Hospital, Traverse City
Campbell, Thomas D.....Box C, Traverse City
Christie, Joseph.....Northport
Cline, Theodore N.....436 W. Front St., Traverse City
Cline, Warren W.....436 W. Front, Traverse City
Curran, Cyril J.....Box C, Traverse City
Dundon, Arthur F.....Box C, Traverse City
Edmonds, W. T.....Munson Hosp., Traverse City
Ellis, Claude I.....Suttons Bay
Ferguson, John T.....Box C, Traverse City
Fishbeck, Wm. A.....1021 E. Eighth, Traverse City
Goodrich, Dwight (R)....601 W. Front St., Traverse City
Haberlein, Chas. R.....1100 Sixth St., Traverse City
Hall, James W.....1100 Sixth St., Traverse City
Hamilton, Earl E.....530 S. Union St., Traverse City
Herkner, Mildred L.....119 Barlow St., Traverse City
Hubacker, Allan S.....112 Second St., Frankfort
Hubbell, Reader J.....228 S. Madison, Traverse City
Huene, Nevin.....110 E. Front St., Traverse City
Huston, R. R.....Elk Rapids
Jerome, Jerome T.....217 S. Madison St., Traverse City
Kamp, Robt. L.....Beulah
Kitti, Wm. W.....Kalkaska
Lemen, Charles E.....110 S. Madison, Traverse City
Lieding, Keith G.....7844 Peninsula Dr., Traverse City
Lossman, Robt. T.....J. Decker Munson Hosp., Traverse City
Magill, Arthur L .....Box C, Traverse City
McClay, Adam C.....215 S. Madison, Traverse City
Michael, Stanley L.....Box 518, Elk Rapids
Milliken, John G.....224 Circle Dr., Traverse City
Nickels, Mervyn M.....Box C, Traverse City
Norconk, Alonzo A.....Empire
Osterhagen, Harold F.....12818 S. Manitou Trail, Traverse City
Otto, Donald.....Munson Hosp., Traverse City
Peterson, Wm. D.....124 Cochlin Street, Traverse City
Pike, Donald G.....876 E. Front St., Traverse City
Power, Frank H.....116 Cass St., Traverse City
Ramzy, Carl O., Jr.....Box C, Traverse City
Randazzo, Salvatore.....Box C, Traverse City
Salon, Dayton D.....108 E. Front St., Traverse City
Schroeder, Dwight M.....Northport
Scott, John E.....536 Washington St., Traverse City
Sheffer, Marcus B. (A).....228 West St., Brighton
Sladek, Edward F.....123 E. Front St., Traverse City
Sommerness, M. Duane.....Box C, Traverse City
Sorum, F. T.....Box C, Traverse City
Spencer, John R.....1124 E. Front, Traverse City
Steele, Wm.....210 S. Monroe, Traverse City
Steffey, Jos. C.....116 Cass Street, Traverse City
Stokes, G. Edward.....1100 Sixth St., Traverse City
Swartz, Fred G.....612 Sixth St., Traverse City
Sweeney, Bernard J.....1100 Sixth St., Traverse City
Thacker, Fredk. R.....Front St., Frankfort
Thirlby, Edwin L. (L).....116 Cass St., Traverse City
Thirlby, Richard L.....228 S. Madison, Traverse City
Trautman, Fredk. D.....Frankfort
Wagener, Creighton A.....1100 Sixth St., Traverse City
Weih, Jack E.....118 E. Front St., Traverse City
Weitz, Harry L.....Munson Hosp., Traverse City
Wilcox, Paul H.....333 Sixth St., Traverse City
Wiley, Philip K.....116 Cass St., Traverse City
Wright, J. K., Jr.....Anderson Bldg., Traverse City
Young, John Roger.....Box C, Traverse City
Zielke, Irwin H.....212 E. Front St., Traverse City
Zimmerman, Jos. G.....102 W. Front St., Traverse City

GRATIOT-ISABELLA-CLARE COUNTY MEDICAL SOCIETY (74)

Aldrich, Alfred L.....Ithaca
Barstow, Donald K.....215 W. Saginaw, St. Louis
Becker, Myron G.....Edmore
Bedo, Andrew V.....802 Gordon, Mt. Pleasant
Bergin, Jos. H.....112 E. Superior, Alma
Brenner, E. J.....610 S. College, Mt. Pleasant
Budge, Melvin J.....1035 Jefferson, Ithaca
Burt, Clarence E.....110 S. Pine River, Ithaca
Burt, Loren G.....510 Prospect St., Alma
Chamberlain, Ray W.....608 E. Chippewa, Mt. Pleasant

Chamichian, Souren L.....117 S. College, Mt. Pleasant
Davis, Lionel L.....314 S. Brown St., Mt. Pleasant
Drake, Wilkie M. (L).....Breckenridge
Dunlop, Donald.....301 East Fourth St., Clare
Gervin, Irfan S.....231 East End St., Alma
Graham, Bernard J.....510 Prospect Ave., Alma
Haddad, T. E.....207 N. Franklin St., Mt. Pleasant
Hall, Robt. F.....805 Douglas St., Mt. Pleasant
Hammerberg, Kuno.....622 McEwan, Clare
Harrigan, Wm. L.....412 E. Broadway, Mt. Pleasant
Hedges, Frank W.....Post Office, Edmore
Hersee, Wm. E.....306 S. College, Mt. Pleasant
Hobbs, A. Deane.....120 N. Center St., St. Louis
Hoogerland, C. L.....236 N. State St., Alma
Hyslop, Leland F.....205 S. College Ave., Mt. Pleasant
Johnson, Frank D.....412 E. Broadway St., Mt. Pleasant
Johnson, Philip R.....206 S. College Ave., Mt. Pleasant
Juhnke, LeRoy W.....314 S. Brown St., Mt. Pleasant
Kilborn, Herbert F.....Mich. Masonic Home, Alma
Linn, Michael R.....215 W. Saginaw Ave., St. Louis
Lusis, Alexsandrs....State Home Trng. Sch., Mt. Pleasant
McArthur, Stewart C.....104 W. 6th St., Clare
McCoy, F. E.....611 S. Kinney St., Mt. Pleasant
Meyer, Edwin G.....510 Prospect, Alma
Oldham, Earle S.....Breckenridge
Pease, H. B.....Health Unit, CMU, Mt. Pleasant
Putzig, L. W.....Blanchard
Ratzlaff, Alvin J.....P.O. Box 218, Onsted
Ringer, Paul H., Jr.....314 S. Brown St., Mt. Pleasant
Rottschaefer, John L.....715 Center St., Alma
Sanders, J. F.....Mich. Masonic Home, Alma
Silvert, Pasche P.....Vestaburg
Veldhuis, Andrew H.....417 S. College St., Mt. Pleasant
Von Lackum, L. F.....535 Prospect Blvd., Waterloo, Iowa
Waggoner, Richard L.....120 N. Center St., St. Louis
Wallman, C. Harry.....901 State St., Alma
Wickert, Leo R.....1001 Watson Rd., Mt. Pleasant
Wilcox, Rex A.....525 State St., Alma
Wilson, Earl C.....Harrison
Wolfe, Kenneth P.....510 Prospect Ave., Alma
Wood, Cornelius B.....207 N. Franklin St., Mt. Pleasant
Wood, John M.....815 E. Maple St., Mt. Pleasant

HILLSDALE COUNTY MEDICAL SOCIETY (78)

Bates, Morton P.....110 S. Manning, Hillsdale
Davis, Lloyd A.....Camden
Davis, William B.....40 E. Bacon, Hillsdale
Day, Luther W.....Grosvener Bnk. Bldg., Jonesville
Hanke, Geo. R. (L).....Osseo
Hodge, Chas. L.....Reading
Hughes, Henry F. (L).....Hillsdale P.O., Cambria
MacNeal, John A.....379 S. Broad, Hillsdale
Mattson, H. Frazyer.....32 S. Broad St., Hillsdale
Peterson, Carl A.....32 Broad St., Hillsdale
Reigle, Frederick C.....Litchfield
Sawyer, Walter W.....61 N. Howell St., Hillsdale
Stein, Arthur J.....144 Budlong St., Hillsdale
Strom, Arthur W.....32 S. Broad St., Hillsdale
Trapp, Donald G.....32 S. Broad St., Hillsdale
Wessels, Fredk. M.....379 S. Broad, Hillsdale
Wiggins, Ira W.....Jonesville

HOUGHTON-BARAGA-KEWEENAW COUNTY MEDICAL SOCIETY (82)

Aldrich, Addison B.....325 Harris Ave., Hancock
Aldrich, Leonard C.....301 Quincy St., Hancock
Bourland, Philip D. (L).....134 Calumet Ave., Calumet
Bourland, Lt. Col. P. E. M. (M).....Off. of Surg., 5th Army, Chicago 15, Ill.
Burke, John J. (L).....1001 Calumet St., Lake Linden
Hillmer, Raymond E. (L).....Painsdale
Hosking, Fredk. S.....320 Calumet St., Lake Linden
Janis, Anton J.....208 Quincy St., Hancock
Kirton, J. R. W. (L).....106 Sixth St., Calumet
Kolb, Fredk. E.....128 Calumet Ave., Calumet
LaBine, Alfred (L).....Masonic Bldg., Houghton
Larson, Forrest W. (A).....322 Shelden, Houghton
Lepisto, Victor E.....238 Quincy St., Hancock
Levin, Simon (L).....1209 College Ave., Houghton
Nolan, Lewis E.....108 Center St., Hancock
Potter, Earl C.....Baraga Co. Mem. Hosp., L'Anse
Repola, Kenneth L.....General Delivery, Laurium
Roche, Andrew M.....221 5th St., Calumet
Rowe, Kenneth E.....112 Pewabic St., Laurium
Sandell, Samuel T.....400 Cooper St., Hancock
Sloan, Paul S.....609 Sheldon Ave., Houghton
Smith, Chas. R. (R).....E. White St., Hancock
Stroube, John A.....522 W. Third, L'Anse
Wickliffe, John T. P.....219 Sixth Street, Calumet
Williams, Marshall S.....St. Joseph's Hospital, Hancock
Winkler, Henry J.....Box 461, L'Anse

HURON COUNTY MEDICAL SOCIETY (86)

Bash, Theodore L. (A).....2614 Kaibab Ave., Bakersfield, Calif.
Dixon, Ralph C.....Box 77, Pigeon
Elliott, Chas. S.....Pigeon
Gettel, Roy R.....Bad Axe
Herrington, Chas. I.....Bad Axe
Herrington, C. Clark.....117 S. Port Crescent, Bad Axe
Herrington, Willet J.....Bad Axe
Oakes, Chas. W., Jr.....Harbor Beach
Scheurer, Clare A.....Pigeon
Sorensen, Maurice G.....P.O. Box, Elkton
Steinhardt, Edward E.....Box 15, Elkton
Turner, Phillip R.....321 S. Fourth St., Harbor Beach
Wible, Chas. F., Jr.....Sebewaing
Willits, Robert A.....165 N. Main Street, Elkton

INGHAM COUNTY MEDICAL SOCIETY (90)

Agate, Geo. H.....Mich. Dept. of Hlth., Lansing 4
Aiken, Donald J.....Grandview & Grand River, Okemos
Alexander, Reuben G.....301 Seymour Ave., Lansing 15
Altland, J. K.....Route 3, Box 178, Lansing
Altman, Harold (A).....616 N. Walnut, Lansing
Asselin, David C.....914 Prudden Bldg., Lansing
Badgley, Waldo O.....M. O. Box 756, Lansing 6
Baker, Thos. C.....624 N. Capitol Ave., Lansing
Bassett, Robt. C.....603 S. Capitol Ave., Lansing
Bates, Richard.....2909 E. Grand River, Lansing
Bauer, Theodore I.....810 Mich. Nat. Tower, Lansing
Behen, Wm. C.....535 S. Capitol Ave., Lansing 33

Behney, Charles A.....Mich. Dept. of Health, Lansing
Bellinger, Ernest G. (L).....Masonic Home, Alma
Berens, Burdette M.....110 N. Rosemary St., Lansing 17
Berge, Richard E. (A).....722 Seneca Place, Madison, Wisc.
Bergeon, Milton C.....302 S. Steele St., Mason
Bevez, Frank L.....3209 S. Cambridge Rd., Lansing
Bingham, B. Wayne.....125 W. Saginaw, Lansing 15
Black, Chas. E.....112 W. Allegan, Lansing
Black, Gertrude C. K...529 W. Grand River, Williamston
Bleil, Eugene E.....408 N. Capitol Ave., Lansing
Bradford, Carl W.....301 Seymour, Lansing
Breakey, Robt. S. (R).....520 Westmorland, Lansing 15
Briggs, James.....1964 S. Cedar St., Holt
Brown, Fredk. W., Jr.....706 Britten Ave., Lansing 17
Brown, Joseph C.....790 E. Columbia, Mason
Brubaker, Earl W.....103 N. Washington Ave., Lansing 16
Bruegel, Oscar H. (L).....204 Birchwood Dr., Traverse City
Burhans, Robt. A.....810 Mich. Natl. Tower, Lansing
Cairns, Donald A.....136 W. Ash St., Mason
Calomeni, Anthony D.....309 Seymour Ave., Lansing 15
Carlson, Ralph G.....3526 W. Saginaw St., Lansing
Carr, Earl I.....1915 Moores River Dr., Lansing 10
Caruso, Joseph A.....2909 E. Grand River, Lansing
Casey, Byron L.....202 M.A.C., East Lansing
Chao, Yu Hua (A).....St. Lawrence Hosp., Lansing
Chaskes, Marian I. G.....226 S. Capitol Ave., Lansing 25
Cheney, Wm. D.....Sparrow Hosp. X-Ray, Lansing
Christian, Leo G.....108 E. St. Joseph St., Lansing 15
Cipparone, Joseph R.....St. Lawrence Hosp., Lansing
Clark, Gaius D.....Oldsmobile Div., GMC, Lansing
Clark, Wm. E. (A).....809 E. Ash Street, Mason
Clinton, Geo. R.....618 S. Jefferson St., Mason
Combs, Robt. G.....1023 E. Michigan Ave., Lansing 12
Comstock, Howard C.....2909 E. Grand River, Lansing 12
Cope, Henry E.....Mich. Dept. of Hlth., Lansing 4
Cordes, Jerome F.....2909 E. Grand River, Lansing
Corneliuson, G. B.....Mich. Dept. of Health, Lansing 15
Cowan, John A.....825 Touraine, East Lansing
Cummings, Geo. D.....Mich. Dept. of Hlth., Lansing 4
Dale, Edward C.....MSU Health Center. East Lansing
Darling, Lewis H.....115 W. Hillsdale St., Lansing 15
Dawe, C. D.....935 Rosewood, East Lansing
Dean, Carleton.....106 W. Allegan St., Lansing 8
DeVries, Corydon F.....320 Townsend St., Lansing 15
Dexter, Mary J.....229 E. Maple, Mason
Drolett, Alfred J. (L)....1018 Prudden Bldg., Lansing 16
Drolett, Donald J.....2909 E. Grand River, Lansing
Drolett, Lawrence A.....3526 W. Saginaw St., Lansing 17
Dunkel, John F.....Edw. W. Sparrow Hosp., Lansing
Dunn, Forest M.....301 Seymour Ave., Lansing 33
Ellis, Bertha W. (R).....Box 216, Port Blakely, Wash.
Ellis, C. Ward (L).....Box 216, Port Blakely, Wash.
Fenney, Kenneth J.....1908 Mich. Natl. Tower, Lansing 15
Ferrari, Fulvio (A).....St. Lawrence Hosp., Lansing
Feurig, James S.....321 Kensington, East Lansing
Finch, Russell L.....420 S. Walnut St., Lansing 33
Folkers, Leonard M.....234 Michigan Ave., East Lansing
Fortino, Silvio P.....2909 E. Grand River, Lansing
Fosget, Wilbur W.....210 E. Hillsdale St., Lansing 33
French, Horace L.....301 Seymour St., Lansing 15
Fryer, Douglas H.....Mich. Dept. of Hlth., Lansing 4
Garlinghouse, A. John, Jr.....408 N. Capitol Ave., Lansing 33
George, Harry C.....335 Seymour St., Lansing 33
Ghannam Rasem (A).....326 N. Ingalls, Ann Arbor
Goldner, Roy E.....1318 S. Washington Ave., Lansing 10
Govons, Sidney R.....408 N. Capitol Ave., Lansing 33
Grey, Anna B.....219 Oakland Dr., East Lansing
Kent, A. Edith Hall.....Box 1167, Lansing
Hames, R. E.....119 E. Grand River Ave., East Lansing
Hanna, Roger J.....2698 Heather Dr., East Lansing
Harris, Herbert W.....609 N. Washington Ave., Lansing 15
Harrison, Wm. H.....834 W. St. Joseph St., Lansing 15
Harrold, Jesse F.....326 W. Ionia. Lansing
Hart, Lloyd C.....119 W. Lenawee St., Lansing
Hatton, R. L.....1218 Theodore, Lansing
Hautau, Emily R.....308 Highland Ave. E., Lansing
Hayes, Robt. E.....1101 S. Washington, Lansing 10
Hayford, Wm. D.....1028 E. Saginaw St., Lansing
Heald, Gordon H.....714 Abbott Road, East Lansing
Heckert, Frank B.....1105 Bnk. of Lansing Bldg., Lansing 16
Heckert, Jos. K.....1105 Bnk. of Lansing Bldg., Lansing 16
Heerdt, Mark E.....810 W. Saginaw, Lansing
Henderson, Norman D.....826 Sunset Lane, East Lansing
Hermes, Edgar J.....604 W. Willow St., Lansing
Henry, R. A.....1515 W. Mt. Hope, Lansing 15
Heustis, Albert E.....410 Cowley, East Lansing
Himmelberger, R. J.....227 West St., Lansing 15
Hiscoe, D. Bonta.....2909 E. Grand River, Lansing
Hoffer, W. E.....331 Shepard Street. Lansing
Hogg, Raymond E.....2909 E. Grand River, Lansing
Holland, Chas. F.....810 W. Saginaw, Lansing
Horvath, Francis (A).....St. Lawrence Hosp., Lansing
Hoyt, John C.....4378 W. Delhi, Holt
Huggett, Clare C.....122 W. Gd. River Ave., Lansing
Hurth, M. S.....1717 Jerome St., Lansing
Imeson, Elizabeth W.....Edw. Sparrow Hosp., Lansing
Isbister, J. L.....Dept. Health, DeWitt Rd., Lansing
Jacob, S. Sprigg, III.....201 Ann St., East Lansing
Johnson, David B.....2909 E. Grand River, Lansing
Johnson, Henry T. (N)..P.O. Box 2289, Phoenix, Arizona
Johnson, Kenneth H.....1116 Mich. Nat. Tower, Lansing
Johnson, Reed P. (N)....139 S. 18 Ave., Maywood, Ill.
Johnson, Richard.....2909 E. Grand River, Lansing
Jones, Francis A., Jr.....2909 E. Grand River, Lansing
June, R. C.....209 N. Walnut, Lansing 33
Kahn David.....2909 E. Grand River, Lansing
Kalmbach, Roland E.....301 Seymour Ave., Lansing 15
Katlein, Stanley (M).....5122 S. Cedar, Lansing
Kellerman, Howard (A).....Sparrow Hosp., Lansing
Kelly, William.....Cass Bldg., Lansing
Kent, Herbert K.....M.O. Box 1167, Lansing 13
Kenyon, Fanny H.....624 LaSalle Blvd., Lansing 12
Klunzinger, W. R.....326 W. Ionia St., Lansing 33
Koyess, Michel (A).....St. Lawrence Hosp., Lansing
Kozak, Jerome S.....609 N. Washington Ave., Lansing
Kraft, L. C.....209 S. Main, Leslie
Lange, Philip F.....1923 S. Cedar St., Lansing 10
Lanting, Helen E. P.....600 Lesher Place, Lansing 15
Larson, Homer I.....1236 N. Downer Dr., Lansing
Lauzun, Virginia D.....309 W. Main St., Lansing 15
Le Duc. Don M.....317 W. St. Joseph, Lansing 15
Leeder, Fredk. S.....Mich. Dept. of Hlth., Lansing 4
Leshock, Jos. C.....2909 E. Grand River, Lansing
Letourneau, Roger A.....345 Haverhill, Lawrence, Mass.
Levett, Harry L.....2909 E. Grand Ave., Lansing
Lewis, Clayton, Jr.....2909 E. Grand River, Lansing
Linnell, Paul C.....4378 W. Delhi St., Holt
Long, Chas. O., Jr.....2909 E. Grand River, Lansing
Lopez, Jose (A).....St. Lawrence Hosp, Lansing
Loree, Maurice C.....120 W. Hillsdale St., Lansing 15
Loughrin, T. D.....335 Seymour, Lansing
Lucas, Thos. A.....426 W. Ottawa St., Lansing 15
Ludlum, Lewis C.....1126 W. Saginaw St., Lansing 15
Malcolm, Henry E.....401 W. Grand River, East Lansing
Martin, Wayne O.....4765 Nakoma Dr., Okemos
Marzolf, M. Finette.....300 W. Ottawa, Lansing 33
McConnell, Elmer G. (R).....212 Leslie St., Lansing
McCorvie, C. Ray.....903 E. Grand River Ave., East Lansing
McCorvie, Donald R.....129 E. Grand River, Williamston
McElmurry, Leland R.....209 N. Walnut St., Lansing 15
McGillicuddy, O. B.....1816 Mich. Natl. Tower, Lansing
McGillicuddy, R. J.....300 W. Ottawa St., Lansing 15
McIntyre, J. Earl (L).....600 S. Grand Ave., Lansing 33
McNamara, B. Edward.....326 Townsend St., Lansing 15
Meade, Wm. H.....535 Ardson Rd., East Lansing
Meinke, Richard K.....1023-25 E. Mich. Ave., Lansing
Melick, Richard C.....326 W. Ionia, Lansing 33

Menzies, Clifford G. (R).....734 Linden, East Lansing
Mercer, Walter E.....909 Glenhaven, East Lansing
Messenger, A. L.....215 N. Walnut St., Lansing
Miller, Jack (A).....Sparrow Hosp., Lansing
Miller, Willard J.....930 N. Washington, Lansing 12
Monfort, Robt. N.....MSU Health Center, East Lansing
Moore, Donald B.....3032 Vine Street, Lansing
Morrow, Robt. J.....412 N. Capitol, Lansing
Nadeau, John H. (M).....610 Tact Hosp., USAFE, APO 109, New York, N. Y.
Nafrawi, Adel G. (A).....Baylor Univ. Hosp., Dept. of Surgery, Dallas, Texas
Nakfoor, Eugene C.....2909 E. Grand River, Lansing
Neering, James C.....1210 W. Saginaw, Lansing 15
Neuman, John R.....3526 W. Saginaw, Lansing
Newitt, A. W.....221 W. Washtenaw, Lansing
Niland, Paul T.....1308 Old Hickory Lane, East Lansing
Nobel, Rudolf E.....607 S. Capitol, Lansing
Ochsner, Paul J.....Fisher Body Corp., Lansing 4
Packer, John H.....2909 E. Grand River, Lansing
Paine, Wm. G.....1028 E. Saginaw St., Lansing
Palmer, R. E. .....535 S. Capitol Ave., Lansing
Parker, Earl E.....207 E. Bellevue, Leslie
Peets, Ronald.....Gr. River & Grandview, Okemos
Philips, David P.....333 N. Chestnut, Lansing 15
Pinkham, Ray A. (R)....535 N. Capitol Ave., Lansing 33
Plesscher, Wm. H. (A)....659 Withington Ave., Ferndale
Pomeroy, Richard W.....609 N. Washington, Lansing 33
Ponton, Jos. C.....Box 230, Mason
Poppen, C. J.....118 W. Park, Haddonfield, N. J.
Prall, Harry J.....214 W. Main St., Lansing 33
Price, Leonard.....Student Hlth. Serv., MSU, E. Lansing
Pung, Elba Molina.....1512 E. Michigan, Lansing
Randall, O. M. (R)....7557 W. Saginaw, R.R. 1, Lansing
Rector, Frank L. (R).....2835 N.E. Brazee Court, Portland 12, Ore.
Reed, O. Grant.....4581 Arrowhead Rd., Okemos
Reid, Harold E.....809 Westlawn, East Lansing
Reynolds, Edward E.....Rt. 2, Box 1B, Williamston
Richards, Frank D.....1028 E. Saginaw St., Lansing
Richardson, Maurice L.....1215 E. Michigan Ave., Lansing 12
Robson, Edmund J.....215 N. Walnut St., Lansing 15
Roland, C. B. (M).....616 Air Control and Warning Sg., APO 35, New York, N. Y.
Rollstin, Robt. A. (M)....1014 Townsend St., Lansing 21
Rozan, Josef S.....2909 E. Grand River, Lansing
Ruhmkorff, Ralph H.....MSU Health Center, East Lansing
Rutledge, Saml. H., Jr.....110 W. Hillsdale St., Lansing 33
Saenz, Hugo R.....1515 W. Mt. Hope, Lansing
Sander, John F.....4780 Okemos Rd., Okemos
Saunders, M. R.....1021 Lilac, East Lansing
Scallin, J. F.....810 W. Saginaw, Lansing
Scheidt, R. Rudolph.....1133 Seymour Ave., Lansing
Schmidt, Harry J.....2909 E. Grand River, Lansing
Schultz, Arthur E.....4646 Ottawa Dr., Okemos
Seger, Fred L. (L).....1035 Cherry St. N.E., St. Petersburg 4, Fla.
Shapiro, Hyman D.....201 W. Hillsdale St., Lansing
Sharp, Mahlon S.....2909 E. Grand River, Lansing
Shaw, Milton.....320 Townsend St., Lansing 15
Sherman, Geo. A.....112 W. Hillsdale, Lansing 15
Sichler, Harper G.....301 Seymour Ave., Lansing 15
Siegel, David.....2909 E. Grand River, Lansing
Silverman, Irving E.....2909 E. Grand River, Lansing
Sircar, Amita Kumar (A).....Ingham Chest Hosp., Lansing
Sleight, Justin L.....2909 E. Grand River, Lansing
Smith, Anthony V.....116 W. Sycamore, Mason
Smookler, Bernard H.....2909 E. Grand River, Lansing
Snyder, Le Moyne.....P.O. Box 1125, Paradise, Calif.
Snyder, Ruth C. E.....234 W. Michigan Ave., East Lansing
Spagnuolo, Alfred J.....1418 S. Logan St., Lansing
Spalding, R. W.....Box 900, Lansing
Spencer, Perry C.....320 Townsend St., Lansing 15
Stanley, Arthur L.....2601 S. Washington Ave., Lansing
Stehman, Vernon A.....Lewis Cass Bldg., Lansing
Steiner, Abraham A. (R).....Route 3, Grand Ledge
Stephan, Winton E.....301 Seymour, Lansing
Stilwill, Geo. D.....2909 E. Grand River, Lansing
Stimson, Paul R.....515 S. Grand, Lansing
Stone, Benj. J.....2909 E. Grand River, Lansing
Stow, Robt. M.....2909 E. Grand River, Lansing
Strauss, Percival C.....3813 W. Willow, Lansing
Stringer, C. J.....401 W. Greenlawn Ave., Lansing 9
Sundell, Edwin C.....1028 E. Saginaw, Lansing
Swartz, Fredk. C.....720 Seymour Street, Lansing
Tamblyn, Fredk. W.....335 Seymour Ave., Lansing 33
Thaden, D. W.....208 MAC Avenue, East Lansing
Thimmig, Robt. F.....326 Townsend St., Lansing
Tien, Hsin Chen.....124 W. Grand River Ave., East Lansing
Toothaker, Kenneth W.....1609 W. Michigan, Lansing 15
Trager, Fredk. C.....933 Northlawn, East Lansing
Trescott, Robt. F.....2909 E. Grand River, Lansing
Trimby, Robt. H.....122 W. Hillsdale, Lansing
Troost, Franklin L.....4378 W. Delhi Rd., Holt
Urban, Eva.....540 Glenmoor, East Lansing
Vanderzalm, T. P.....1452 Cambridge Rd., Lansing
Venier, Jos. H.....544 Division, East Lansing
Wadley, Ralph.....335 Seymour Ave., Lansing 33
Wainright, James W.....720 Seymour Street, Lansing
Walker, Leo W.....4225 Apple Tree Lane, Lansing
Wellman, J. M.....301 Seymour, Lansing 33
West, Charles C.....2909 E. Grand River, Lansing
Wilensky, Thos.....201 W. Hillsdale, Lansing
Willson, Howard S.....704 Mich. Nat. Tower, Lansing 8
Wolcott, Lester E.....3555 W. Arbutus, Okemos
Worthington, Ralph.....717 Britten Ave., Lansing
Zick, Gerald A.....122 W. Hillsdale St., Lansing

IONIA-MONTCALM COUNTY MEDICAL SOCIETY (94)

Anderson, D. Hess.....207 Bridge St., Portland
Bird, Wm. L.....110 W. Cass St., Greenville
Birzgalis, Alfreds A.....Ionia State Hosp., Ionia
Buck, Jack H.....517 Division, Ionia
Bunce, Earl P. (L).....Trufant
Bunce, Leo W.....Trufant
Campbell, Richard E.....340 E. Main St., Ionia
Detterbeck, Frank J.....940 Park St., Belding
Dunkin, Lloyd S.....410 S. Clay St., Greenville
Fleming, John W. C. (L).....Pewamo
Foust, Jos. C. (A).....Kisa Box 73, Tukuyu Tanganyika, E. Africa
Fox, Harold M.....Portland
Geib, Oscar P. (L).....Carson City
Glerum, John B.....507 S. Lafayette St., Greenville
Halick, John.....200 S. Franklin, Greenville
Hansen, Carl M.....Stanton
Haskell, Robt. H. (L).....315 S. 5th Avenue, Ann Arbor
Hoffs, Marinus A.....Shellborn Bldg., Lake Odessa
House, Glenn W., Jr.....507 S. Lafayette St., Greenville
Kazmers, Nikolas.....Lakeview
Kopchick, Jos.....Muir
Kozachik, Martin J.....123 Bridge St., Portland
Kwast, Harold A. (M).....123 Bridge St., Portland
Leider, Thos. R.....230½ W. Main St., Ionia
Lilly, Isaac S. (L).....Stanton
London, John L. (M).....9602 Bevlyn, Houston, Texas
Marston, Leo L.....Box 235, Lakeview
Mitchell, Harold C.....509 Johnson St., Ionia
Naglins, Jekabs.....Ionia State Hosp., Ionia

Olsen, Bruce C.....110 W. Cass St., Greenville
Pates, Don C.....Belding
Rice, Robt. E.....P.O. Box 271, Greenville
Robertson, Perry C. (L).....327 Center St., Ionia
Slagh, Milton E.....Saranac
Smith, Robt. O.....724 Roselawn, Ionia
Socha, Edmund S.....217 E. Main, Ionia
Stevens, Charles E.....513 N. Lafayette St., Greenville
Tannheimer, John F.....525 Lafayette St., Ionia
Tromp, Jack L.....R.F.D. 3, Lake Odessa
Van Loo, Jacob.....103 E. Washington St., Belding

JACKSON COUNTY MEDICAL SOCIETY (98)

Adams, Ellis W.....517 Wildwood Ave., Jackson
Ahronheim, J. H.....Foote Memorial Hosp., Jackson
Appel, Saul.....112 W. Michigan Ave., Jackson
Baker, Geo. M.....350 S. Union, Parma
Beckwith, Sidney A.....100 E. Main St., Stockbridge
Bentley, Jack P.....2532 Spring Arbor Rd., Jackson
Bentley, Mary E. N.....2532 Spring Arbor Rd., Jackson
Brashares, Zane A.....Brooklyn
Bullen, G. R.....418 Third St., Jackson
Clarke, Corwin S. (L).....1046 4th St., Jackson
Cooley, Chas. W.....Mercy Hosp., Jackson
Cooley, Randall M. (L).....141 E. Robinson St., Jackson
Corley, Cecil.....204 Homecrest Rd., Jackson
Corley, Ennis H.....3923 Kathmar Dr., Jackson
Corley, Robt. W.....204 Homecrest Rd., Jackson
Cox, Ferdinand (L).....1601 4th St., Jackson
Culver, Guy D. L. (A).....P.O. Box 38, Stockbridge
Daly, Byrne M.....709 Oakridge Drive, Jackson
Davenport, Bruce.....404 McNeal St., Jackson
DeMay, Cuthbert E.....403 E. Michigan Ave., Jackson
DeMay, John D.....403 E. Michigan Ave., Jackson
Deming, Richard C.....724 W. Franklin, Jackson
Dengler, Chas. R.....504 3rd St., Jackson
Dickman, Harry M.....104 Oak St., Hudson
Douglas, Edward W. (L).....468 4th Avenue
New Kensington, Pa.
English, David C.....606 W. Michigan Ave., Jackson
Filip, Hypolit K., Jr.....P.O. Box 84, Jackson
Finton, Robt. E.....610 W. Michigan, Jackson
Finton, Walter L. (L).....1502 Carlton Blvd., Jackson
Foust, Wm. L.....219 E. Michigan, Grass Lake
Garlock, Grant L. (A).....314 Homecrest, Jackson
Greenbaum, Harry.....1203 Greenwood Ave., Jackson
Growt, Bowers H.....Addison
Habenicht, Hilda A.....718 Glenwood St., Jackson
Hackett, Thos. L.....519 N. East Ave., Jackson
Hanft, Cyril F.....144 E. Main St., Springport
Hanson, Victor R.....Chelsea
Hardie, Geo. C.....724 W. Michigan, Jackson
Hicks, Glenn C. (L).....1009 Wildwood Avenue, Jackson
Holst, John B.....606 City Bank Bldg., Jackson
Huntley, W. B. (L).....770 32nd Ave. S., Lot 500.
St. Petersburg 5, Fla
Joerin, Wm. A.....612 First St., Jackson
Karr, Jean P.....502 W. Michigan Ave., Jackson
Keefer, Albert H.....Concord
Kempton, Geo. B.....511 S. West Avenue, Jackson
Kiessling, A. J., Jr.....511 S. West Ave., Jackson
Kline, Starr L. (L).....3525 Jefferson Rd., Clark Lake
Kobs, Robt. J.....608 W. Michigan Ave., Jackson
Kudner, Donald F.....435 Wildwood Ave., Jackson
Lake, Edward C.....612 1st St., Jackson
Landron, Danl.....4633 Page, Michigan Center
Latchaw, William R.....4000 Cooper St., Jackson
Lenz, Chas. R., Jr.....405 1st St., Jackson
Lewis, Elmore, F.....1112 Carlton Blvd., Jackson
Linden, Victor E.....112 W. Michigan Ave., Jackson
Llinas, Jose J.....1215 First St., Jackson
Ludwick, John E.....237 W. Washington Ave., Jackson
Ludwick, John P.....237 W. Washington, Jackson
Luh, E. F.....328 W. Franklin St., Jackson
McGarvey, Wm. E.....161 W. Michigan Ave., Jackson
McLaughlin, John M.....710 S. Brown St., Jackson
McLaughlin, Miar J. (L).....710 S. Brown St., Jackson
McLauthlin, H. B.....439 Wildwood Ave., Jackson
McQuillan, F. P.....611 Center St., Jackson
Meads, Jason B.....161 W. Michigan Ave., Jackson
Medlar, Robt. E.....719 Seventeenth St., Jackson
Morelli, Lorenzo.....401 W. Prospect St., Jackson
Muhich, Ralph A.....2532 Spring Arbor Rd., Jackson
Munro, Colin D. (L).....740 W. Michigan, Jackson
Munro, James E. (L).....1015 Pigeon St., Jackson
Munro, Nathan D.....740 W. Michigan Ave., Jackson
Murphy, Bernard M.....1134 E. Ganson St., Jackson
Newton, Ray E.....180 W. Michigan Ave., Jackson
Niekamp, Harold.....2532 Spring Arbor Rd., Jackson
Oleksy, Stanley P.....744 W. Michigan, Jackson
Olsen, Lloyd L.....610 W. Michigan Ave., Jackson
Oster, Harold L.....1218 Greenwood Ave., Jackson
Otis, Grant L.....525 Wildwood Ave., Jackson
Payne, Andrew K.....Foote Memorial Hosp., Jackson
Phillips, Geo. H.....Jackson Co. TB Sanat., Jackson
Porter, Horace W.....505 Wildwood Ave., Jackson
Pray, Frank F. (L).....310 Steward Ave., Jackson
Pray, Geo. R. (L).....404 S. Jackson St., Jackson
Preston, Joseph A.....Mercy Hospital, Jackson
Rice, John W.....421 McNeal St., Jackson
Ries, Richard G.....612 First St., Jackson
Riley, Philip A.....500 S. Jackson St., Jackson
Riley, Philip A., Jr.....500 S. Jackson St., Jackson
Rucker, Joseph.....1012 Francis St., Jackson
Sargent, Leland E.....Foote Memorial Hosp., Jackson
Sautter, Wm. A.....Horton
Schmidt, Theophile E.....180 W. Michigan Ave., Jackson
Scott, John A., Jr.....432 W. Michigan, Jackson
Shaeffer, Arthur M.....1615 Carlton Blvd., Jackson
Shaeffer, Leland D.....1615 Carlton Blvd., Jackson
Sher, David B.....4000 Cooper St., Jackson
Sill, Henry W.....724 W. Michigan Ave., Jackson
Sirhal, Alfred M.....Brooklyn
Smith, Dean W.....500 W. Michigan Ave., Jackson
Southwick, W. A.....130 Maple Street, Springport
Stackable, Wm. R.....2532 Spring Arbor Rd., Jackson
Stewart, Lewis L. (L).....308 Edgewood St., Jackson
Stewart, Lewis L., Jr.....1919 Kibby Road, Jackson
Stolberg, Carl A.....724 W. Franklin, Jackson
Stone, Ethon L.....721 Seventeenth St., Jackson
Sugar, Saml.....180 W. Michigan Ave., Jackson
Tate, Cecil E.....1315 Francis St., Jackson
Taylor, Ross V.....517 Wildwood Ave., Jackson
Thalner, Leonard F.....609 W. Michigan Ave., Jackson
Thayer, Earl A.....120 W. Michigan Ave., Jackson
Thompson, T. B.....434 Wildwood Ave., Jackson
Torwick, Edward T.....112 W. Michigan Ave., Jackson
Townsend, James W.....108 Hague Ave.,
Vandercook Lake, Jackson
Van Schoick, Frank.....419 W. High St., Jackson
Van Schoick, John D.....Hanover
Van Wagnen, F. I., Jr.....434 Wildwood Ave., Jackson
Vivirski, Edward E.....603 S. Elm Ave., Jackson
Weddon, Edward R.....R.F.D. 2, Stockbridge
Wholihan, John W.....604 W. Michigan Ave., Jackson
Wickham, Woodward A.....435 Wildwood Ave., Jackson
Wille, Warren S.....1204 First St., Jackson
Winter, Geo. E. (L).....2333 22nd St. S.,
St. Petersburg 5, Fla.

KALAMAZOO ACADEMY OF MEDICINE (102)

Aach, Hugo A.....3314 Bronson Blvd., Kalamazoo 37
Alexander, C. A.....118 W. North St., Kalamazoo
Andrews, Sherman E.....224 E. Cedar St., Kalamazoo 8
Angell, Howard H. (A).....301 Henrietta St., Kalamazoo
Anglin, Walter M. (A).....R.R. 2, Box 300, Richland
Appel, Ben A.....252 E. Lovell St., Kalamazoo
Appel, Wm. P.....252 E. Lovell St., Kalamazoo 8
Appell, Lloyd E.....126 N. Kalamazoo Ave., Vicksburg
Armstrong, Robt. J.....103 N. Burdick St., Kalamazoo 1
Banner, Lawrence R.....Borgess Med. Center, Kalamazoo
Barak, Herbert G.....1631 Gull Road, Kalamazoo
Barrows, Winona M.....1500 Blakslee St., Kalamazoo
Barry, Manley L.....Plainwell Sanit., Plainwell
Bennett, Keith F.....252 E. Lovell St., Kalamazoo
Berglund, V. A.....6646 Portage Rd., Kalamazoo
Berry, Ivor, Jr.....516 Whites Rd., Kalamazoo
Betz, Eldean G.....1711 Merrill, Kalamazoo 6
Birch, Wm. G.....252 E. Lovell Ave., Kalamazoo 5
Bodmer, Harvey C.....403 W. Kalamazoo Ave., Kalamazoo
Bond, Glenn C. (A).....301 Montrose, Kalamazoo
Borgman, Wallace.....1631 Gull Rd., Kalamazoo 46
Boyd, Robt. E.....302 Bronson Med. Center, Kalamazoo
Breneman, James C.....Galesburg
Brooks, Bert W.....715 Edgemoor Ave., Kalamazoo
Brown, Irmel W.....107 W. Michigan Ave., Kalamazoo
Brue, Peter P.....1009 Cambridge Dr., Kalamazoo
Burbidge, Earl L.....2034 Saxonia Lane, Parchment
Burrell, Robt. B.....1711 Merrill St., Kalamazoo
Caldwell, Clyde T., Ph.D. (A).....2112 Sheffield Dr., Kalamazoo
Callander, C. Glen.....252 E. Lovell St., Kalamazoo
Cartland, Geo. F., Ph.D. (A).....1704 Dover Rd., Kalamazoo
Cashen, Russell M.....252 E. Lovell St., Kalamazoo
Chrest, Clarence P.....458 W. South St., Kalamazoo
Clement, F. L.....208 Bronson Med. Cen., Kalamazoo
Cobb, Horace R. (L).....3403 Knox Street, Kalamazoo
Conrad, Maynard M.....252 E. Lovell St., Kalamazoo
Cooper, Paul F.....4326 Oakland Dr., Kalamazoo
Cornish, F. L., III.....4301 Sunnybrook Dr., Kalamazoo
Cox, Franklin.....Borgess Hospital, Kalamazoo
Crane, Warren B.....1631 Gull Rd., Kalamazoo
Crawford, Kenneth L.....612 Douglas, Kalamazoo
Crawford, Porter F. (A).....Box 831, Kalamazoo
Crawley, Kenneth R. (A)....301 Henrietta St., Kalamazoo
Creager, Ray O.....1218 Bronson Circle, Kalamazoo
Cretsinger, Francis C.....224 E. Cedar St., Kalamazoo
Currier, Richard K.....6646 Portage Rd., Kalamazoo
Dahlstrom, Doris E.....723 S. Westnedge Ave., Kalamazoo
Dana, Robt. L.....228 W. Cedar St., Kalamazoo
Delbert, Stewart G.....914 S. Burdick St., Kalamazoo
DeLong, Robt. E.....Borgess Med. Center, Kalamazoo
DePree, Harold E.....252 E. Lovell St., Kalamazoo
Dew, Robt. R.....1711 Merrill St., Kalamazoo
DeWitt, Norman L.....103 N. Burdick St., Kalamazoo
Dick, Leo A.....428 Stuart Ave., Kalamazoo
Doezema, Edward R.....516 Whites Rd., Kalamazoo
Dowd, Bennard J.....1415 Henderson Dr., Kalamazoo
Doyle, Fredk. M.....3320 Bronson Blvd., Kalamazoo 37
Dugger, James A.....2901 S. Westnedge Ave., Kalamazoo
Endrei, Arisztid.....1312 Oakland Dr., Kalamazoo
Estill, Don V.....414 W. Patterson St., Kalamazoo
Fancher, James A. (A).....301 Henrietta St., Kalamazoo
Fath, August F.....1711 Merrill, Kalamazoo
Ferguson, Robt. K.....1324 S. Park, Kalamazoo
Finton, Max A.....252 E. Lovell St., Kalamazoo
Flunt, Roman.....Box A, State Hospital, Kalamazoo
Fopeano, John V.....1711 Merrill St., Kalamazoo
French, Merle R.....5250 Oracle Rd., Tucson, Arizona
Fulkerson, Clark B. (L)....425 S. Westnedge, Kalamazoo
Fuller, Paul M.....1700 Gull Rd., Kalamazoo
Gardner, Carl A...1410 American Nat'l Bank, Kalamazoo
Gerstner, Louis W.....2425 Law Ave., Kalamazoo
Gladstone, Wm. S.....458 W. South St., Kalamazoo
Glaser, Daniel F.....463 Academy St., Kalamazoo
Goodhue, Lolita G.....2503 W. Main St., Kalamazoo
Graf, Michael.....2529 Fairfield Ave., Kalamazoo
Grant, Fredk. E. (L).....214 Douglas Ave., Kalamazoo
Green, Wm. L.....136 E. Michigan Ave., Kalamazoo 4
Grekin, Robt. H.....136 E. Michigan Ave., Kalamazoo
Gremel, Norman.....458 W. South St., Kalamazoo
Haddock, D. A., Jr.....6646 Portage St., Kalamazoo
Hailman, Harold F.....301 Henrietta St., Kalamazoo
Hammer, John M.....100 Maple St., Parchment
Hanson, Curtis M.....252 E. Lovell St., Kalamazoo
Hare, J. Donald.....516 Whites Rd., Kalamazoo
Harrell, Frank G.....420 John St., Kalamazoo
Harrelson, Wm. D.....1324 S. Park, Kalamazoo
Harvey, Donald A. (A).....2308 Crane Ave., Kalamazoo
Hayner, Russell A.....4015 Portage, Kalamazoo
Heersma, H. Sidney.....1711 Merrill St., Kalamazoo
Heinle, Robt. W.....Med. Div., Upjohn Co., Kalamazoo
Hendrix, J. W. (A).....2326 W. Main St., Kalamazoo
Herbert, Walter N.....1223 S. Park St., Kalamazoo
Hersey, E. Freeman.....1215 Oakland Dr., Kalamazoo
Hersey, Margaret S.....1215 Oakland Dr., Kalamazoo
Hildreth, Roscoe C.....458 W. South St., Kalamazoo 46
Hodgman, Albert B.....1601 Grand Ave., Kalamazoo
Hoebeke, Wm. G. (L).....252 E. Lovell St., Kalamazoo
Howard, R. Grant.....Borgess Med. Center, Kalamazoo
Howard, Willard H.....1602 Gull Rd., Kalamazoo
Hubbard, Edwin M.....463 Academy St., Kalamazoo
Hume, Robt. H.....705 Hanselman Bldg., Kalamazoo
Hunt, Jack (M).....100 Maple, Parchment
Huyser, Wm. C. (L).....427 S. Burdick St., Kalamazoo
Irwin, Wm. D.....103 N. Burdick St., Kalamazoo
Jennings, Robt. M.....Box A, Kalamazoo
Johnson, Fenimore T. (A).....Med. Div., Upjohn Co., Kalamazoo
Kavanaugh, John.....1223 S. Park St., Kalamazoo
Kavanaugh, Wm. R.....612 Douglas Ave., Kalamazoo
Kercher, Ervin F.....2019 Ramblin, Kalamazoo
Kilgore, Robt. N.....252 E. Lovell St., Kalamazoo
Klerk, Wm. J.....914 S. Burdick St., Kalamazoo
Knapp, Robt. D., Jr. (A)..301 Henrietta St., Kalamazoo
Koestner, Paul A.....1303 Portage St., Kalamazoo
Kuizenga, Marvin R., Ph.D. (A).....Upjohn Co., Kalamazoo
Lavender, H. C. (A)..136 E. Michigan Ave., Kalamazoo
Lawrence, James O.....1409 Henderson Dr., Kalamazoo
Lawson, James B. (A).....RR 1, Box 190, Vicksburg
Lemmer, Richard A.....252 E. Lovell St., Kalamazoo
Light, Richard U...916 American Nat'l Bldg., Kalamazoo
Littig, John D.....1708 Embury Rd., Kalamazoo
Locklin, W. Kaye.....136 E. Michigan, Kalamazoo
Louisell, James M.....1223 S. Park, Kalamzoo
Loynd, James W., II.....1324 S. Park St., Kalamazoo
MacDonald, M. A.....2824 Hill n' Brook Dr., Kalamazoo
MacGregor, John R.....100 Maple St., Parchment
Machin, Harold A.....2348 Tipperary Rd., Kalamazoo
Malone, James G.....420 John St., Kalamazoo
Margolis, Fredk. J.....2901 S. Westnedge, Kalamazoo
Marshall, Don.....252 E. Lovell St., Kalamazoo
Marshall, Evelyn M. W. (A).....1508 Timberlane Dr., Kalamazoo
Marshall, Wm. P.....160 Edgemoor Ave., Kalamazoo
Martens, Irvin J.....1521 Gull Rd., Kalamazoo
May, Donald G.....516 Whites Rd., Kalamazoo
McCarthy, Jos. S.....Box A, Kalamazoo
McLennan, Thomas A.....5048 Riverview Dr., Parchment
McLeod, Garrard A., Ph.D. (A).....Upjohn Co., Kalamazoo
McManus, James W.....1416 Academy St., Kalamazoo
McMillan, Donald W.....1631 Gull Rd., Kalamazoo
Mellis, Richard.....516 Whites Rd., Kalamazoo
Moe, Carl R.....1324 S. Park St., Kalamazoo
Morter, Roy A. (L).....2421 Sheffield, Kalamazoo
Neerken, Adrian J.....1318 Amer. Nat'l Bldg., Kalamazoo
Nicholson, Robt. M.....1711 Merrill, Kalamazoo
O'Donovan, C. J.....2659 Sunnybrook Dr., Kalamazoo

Overbey, Chas. B., Jr.....1000 Oakland Dr., Kalamazoo
Patmos, Martin.....1207 Cherry St., Kalamazoo
Peake, Chas. O., III.....252 E. Lovell St., Kalamazoo
Pearson, Edwin O.....458 W. South St., Kalamazoo 46
Peelen, J. W.....516 Whites Rd., Kalamazoo
Peelen, Matthew.....252 E. Lovell St., Kalamazoo
Peltason, Walter C.....Box A, Kalamazoo
Peltier, Hubert C. (A).....Upjohn Co., Kalamazoo
Perry, Clifton W.....2030 Waite Ave., Kalamazoo 40
Pinkham, Raymond A.....316 Henrietta St., Kalamazoo
Pool, John D.....736 East Cork St., Kalamazoo
Prentice, Hazel R.....2413 W. Main St., Kalamazoo
Pullon, Alton E.....1223 S. Park St., Kalamazoo
Rasmussen, Leo B.....152 N. Main St., Vicksburg
Reames, Harold R.....2704 Brookhaven Rd., Kalamazoo
Rigterink, Gerald H.....433 South Rose St., Kalamazoo
Roberts, Millard S.....118 Bulkley St., Kalamazoo 49
Rockwell, Donald C.....1227 Jefferson, Kalamazoo 48
Roger, Rita Ruth.....533 John St., Kalamazoo
Rogers, Rodney J.....126 N. Kalamazoo, Vicksburg
Rutherford, P. S.....Borgess Hospital, Kalamazoo
Ryan, Fredk. C.....1631 Gull Rd., Kalamazoo
Sage, Edward D. (L)..902 Hanselman Bldg., Kalamazoo
Scherer, Flora E.....3628 Bronson, Kalamazoo
Scholten, Dirk J. (L).....522 S. Burdick St., Kalamazoo
Scholten, Roger A.....252 E. Lovell St., Kalamazoo
Scholten, Wm. (R).....Box A, State Hospital, Kalamazoo
Schrieber, R. S., Ph.D. (A)....Upjohn Co., Kalamazoo
Schrier, Clarence T. M.....1000 Oakland Dr., Kalamazoo
Schrier, Paul G.....252 E. Lovell St., Kalamazoo
Schrier, Thomas.....Box 88, Comstock
Scott, William A.....1631 Gull Rd., Suite 212, Kalamazoo
Simpson, Bernard W.....610 S. Burdick, Kalamazoo
Slatmyer, Karel R., Jr.....103 N. Burdick St., Kalamazoo
Slenger, Walworth R.....252 E. Lovell St., Kalamazoo
Smith, Thos. C.....1000 Oakland Dr., Kalamazoo
Sofen, Morris B.....107 W. Michigan Ave., Kalamazoo
Southworth, M. N.....Schoolcraft
Stewart, R. B.....605 Hanselman Bldg., Kalamazoo
Stewart, Wm. C., Jr.....2019 Rambling Rd., Kalamazoo
Stiller, Anthony F.....1500 Blakslee St., Kalamazoo
Stryker, Homer H.....Borgess Med. Center, Kalamazoo
Talanda, Edmund.....3125 W. Main, Kalamazoo
Tucker, Harold A. (A).....Upjohn Co., Kalamazoo
Upjohn, E. Gifford.....301 Henrietta St., Kalamazoo
Upjohn, Harold.....301 Henrietta St., Kalamazoo
Vander Velde, K. M.....Bronson Med. Center, Kalamazoo
Verhage, Martin D.....228 W. Cedar St., Kalamazoo
Volderauer, John C.....458 W. South St., Kalamazoo
Warnke, Robt. D.....1631 Gull Rd., Kalamazoo
Weadon, Preston S.....252 E. Lovell St., Kalamazoo
Webb, Joseph P. (A).....301 Henrietta St., Kalamazoo
Wenner, Wm. F. (A)....1715 Cambridge Rd., Kalamazoo
Wilbur, Edward P. (L)....1730 Dover Rd., Kalamazoo 38
Williamson, Edwin M.....252 E. Lovell St., Kalamazoo
Wilson, Doyle E.....1223 S. Park St., Kalamazoo
Wu, Jack F.....810 E. Center Ave., Kalamazoo
Young, Edgar W., Jr. (A).....Upjohn Co., Kalamazoo
Youngs, Cyril A.....416 S. Burdick St., Kalamazoo
Zolen, Margaret H.....628 S. Park St., Kalamazoo
Zwergel, Edward H.....5207 Morningside Dr., Kalamazoo

KENT COUNTY MEDICAL SOCIETY (106)

Adams, Frank A.....526 Leonard St. N.W., Grand Rapids
Aitken, Geo. T.....50 College Ave. S.E., Grand Rapids 3
Albers, G. Donald....203 Paris Ave. S.E., Grand Rapids 3
Albers, Robt. (A)....50 College Ave. S.E., Grand Rapids
Aldridge, Chas. W., Jr.....153 Lafayette S.E., Grand Rapids 3
Alfenito, Felix S., Jr.....26 Sheldon Ave. S.E., Grand Rapids 2
Alger, George D.....2060 Alpine Ave. N.W., Grand Rapids
Allen, L. Willis.....245 State St. S.E., Grand Rapids 3
Allen, Ralph V.....1669 Plainfield Ave. N.E., Grand Rapids 5
Anderson, Karl A. (A).....2663 Reeds Lake Blvd., Grand Rapids
Andre, Harvey M...500 Cherry St. S.E., Grand Rapids 3
Andrews, E. B. (A).....280 Calhoun St., Charleston, N. C.
Appelboom, J. W. Th.....2402 Eastern Ave. S.E., Grand Rapids 7
Avery, Noyes L., Jr...833 Lake Dr. S.E., Grand Rapids 6
Baker, Abel J. (L).....74 Ionia Ave. N.W., Grand Rapids 2
Baker, Robt. J. (M).....8231 Russell Ave. S., Minneapolis 20, Minn.
Ballard, Milner S.....146 Monroe Ave. N.W., Grand Rapids
Balyeat, Gordon W.....150 Morningside Dr., Grand Rapids 6
Barofsky, Gerald F...808 Alger St. S.E., Grand Rapids 7
Bartek, Gordon L.....110 E. Fulton St., Grand Rapids
Basinger, Clair E.....1810 Wealthy St. S.E., Grand Rapids
Baum, Wm. C.....153 Lafayette S.E., Grand Rapids 3
Beaton, James H.....153 Lafayette S.E., Grand Rapids 3
Beeman, Carl B.....833 Lake Dr. S.E., Grand Rapids 6
Beets, W. Clarence....124 Fulton St. E., Grand Rapids 2
Bell, Chas. M.....50 College Ave. S.E., Grand Rapids 3
Benjamin, Howard G.....72 Sheldon Ave. S.E., Grand Rapids 2
Bennett, W. Bruce.....Lakeview Hosp., Lakeview
Bennett, Wm. D.....1514 Wealthy St. S.E., Grand Rapids 6
Benson, Roland R.....250 Cherry St., Grand Rapids 3
Bergsma, Stuart.....2639 Brooklyn S.E., Grand Rapids 7
Beukema, Marenus J.....6850 S. Division Ave., Grand Rapids 8
Bignall, C. Rexford..245 State St. S.E., Grand Rapids 3
Birch, Larry H.....100 Mich St. N.E., Grand Rapids
Bird, Frank L. (A).....8 Main St., Netcong, N. J.
Blackburn, Henry M. (L).....116 E. Fulton St., Grand Rapids
Blocksma, Ralph.....245 State St. S.E., Grand Rapids 3
Boelkins, Richard C.....125 Fountain St. N.E., Grand Rapids 3
Boerman, Walter J.....2060 Alpine Ave. N.W., Grand Rapids
Boersma, Donald.....920 Chippewa, Grand Rapids
Boet, Frank A. (L).....849 Scribner Ave. N.W., Grand Rapids 4
Boet, John T.....2339 Wyoming Ave. S.W., Grand Rapids 9
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Wahby, Elmer F.....300 Bostwick Ave. N.E., Grand Rapids
Walma, Daniel.....3011 Wilson S.W., Grandville
Wassink, Roger N. (A).....U. S. Naval Hospital, San Diego, California
Waterman, Donald F.....535 Greenwood S.E., Grand Rapids 6
Webb, Clarence F.....833 Lake Dr. S.E., Grand Rapids 6
Webber, Jerome E.....50 College Ave. S.E., Grand Rapids 3
Weller, Keith E.....1200 Lake Dr. S.E., Grand Rapids 6
Wells, S. Merrill, Jr.....50 College Ave. S.E., Grand Rapids 3
Wenger, Aaron V. (L).....132 Grand Ave. N.E., Grand Rapids
Wenger, John N.....Coopersville
Westerhoff, Robert J.....2740 Eastern Ave. S.E., Grand Rapids
Whalen, John M. (M).....(No Address)
Whinery, Jos. F.....50 College Ave. S.E., Grand Rapids 3
Whitehouse, John D.....1201 Colorado Ave. S.E., Grand Rapids 6
Whittenberger, R. N...245 State St. S.E., Grand Rapids 3
Wiarda, Roy J., Jr. (A).....1427 S. Broadway, E. Providence, R. I.
Wiese, John L.....50 College Ave. S.E., Grand Rapids 3
Wilderom, Morris.....303 Ionia Ave. S.W., Grand Rapids
Wilkes, John B.....1328 Madison Ave. S.E., Grand Rapids 7
Wilkinson, C. A.....2030 Leonard St. N.W., Grand Rapids
Williams. John R.....1111 Conlon S.E., Grand Rapids 6
Wilson, John R.....1033 Fulton St. W., Grand Rapids
Wilson, Wm. E. (R).....37 Prospect Ave. N.E., Grand Rapids
Winfield, Emery D.....457 Burton S.E., Grand Rapids
Winter, Garrett E.....1967 Godfrey Ave. S.W. Grand Rapids 9
Wright, Thos. B.....2614 Plainfield Ave. N.E., Grand Rapids 8
Wurz, John F.....201 Norwood Ave. S.E., Grand Rapids 6
Wyngaarden, Martin K.....245 State St. S.E., Grand Rapids 3
Yared, Jerome A.....651 Cherry St. S.E., Grand Rapids 6
Zadvinskis, Z.....1451 Grandville S.W., Grand Rapids 9
Zwemer, Rodger J.....1810 Wealthy St. S.E., Grand Rapids

LAPEER COUNTY MEDICAL SOCIETY (110)

Bishop, G. Clare.....Almont
Boruch, Leon R...Drawer A, Lapeer State Home, Lapeer
Buchanan, Thos. K.....Ypsilanti State Hosp., Ypsilanti
Conaway, Chas. E.....746 Monroe St., Lapeer
Dorland, Clarke.....221 Lincoln St., Lapeer
Doty, James R.....315 Clay St., Lapeer
Greavu, Cornell, Jr.....North Branch
Heitsch, Wm. C.....307 Clay St., Lapeer
House, Clifford.....1026 N. Madison, Lapeer
Kiehler, E. G., II.....1444 W. Genesee St., Lapeer
Kocur, Lubomira.....Drawer A, Lapeer
Lebedovych, Emil..Drawer A, Lapeer State Home, Lapeer
Lebedovych, Ksenia.....Drawer A, Lapeer State Home, Lapeer
Leith, Dorothy L.....240 Main St., Imlay City
McBride, John R.....431 Washington St., Lapeer
O'Brien, Daniel J. (L).....100 Cedar St., Lapeer
Panczak, Tamara.....Lapeer State Home, Lapeer
Smith, Ellen.....400 White Road, Rte. #1, Columbiaville
Smith, Glenn L.....6552 Imlay City Rd., Imlay City
Utley, Marvin (A).....Pontiac State Hosp., Pontiac
Zemmer, Harry B.....311 Clay St., Lapeer
Zolliker, Carl R.....Lapeer State Home, Lapeer

LENAWEE COUNTY MEDICAL SOCIETY (114)

Abraham, A. O.....Hudson
Balice, F. W.....128 E. Butler, Adrian
Benz, Carl A.....308 N. Broad St., Adrian
Berghuis, John.....693 Stockford Dr., Adrian
Blanchard, Lowell E.....Hudson
Blanden, Merwin R.....Tecumseh
Boyd, James W.....Bixby Hospital, Adrian
Claxton, Wilbert T.....Britton
Coak, Richard D.....Ford Bldg., Tecumseh
Cook, Carlton L.....W. Chicago Rd., Tecumseh
Dustin, Richard E.....103 W. Brown St., Tecumseh
Eddy, Howard R. C.....Mill Rd., Adrian
Fitzsimmons, Francis J.....128 E. Butler St., Adrian
Friedman, Harvey M.....Addison
Gilkey, Wm. C.....693 Stockford Dr., Adrian
Gilmartin, Richard.....231 N. Main St., Adrian
Greiner, Robert A.....Professional Bldg., Adrian
Hamilton, John D.....Mill Rd., Adrian
Hammel, Richard T.....Tecumseh
Harrison, Robt. E.....418 W. Adrian, Blissfield
Heffron, Chas. H.....231 N. Main St., Adrian
Heffron, C. Harold.....231 N. Main St., Adrian
Heffron, Howard H.....231 N. Main St., Adrian
Helzerman, Ralph F.....112 S. Ottawa St., Tecumseh
Hewes, Wm. H.....Mill Rd., Adrian
Hinshaw, Warren V.....139 N. Main St., Adrian
Isley, Homer E.....410 Benot Court, Blissfield
Locke, Francis A.....767 W. Maumee St., Adrian
Marsh, Roland G. B.....610 W. Logan, Tecumseh
Miller, P. Lynford.....310 E. Maumee St., Adrian
O'Conner, Archie R.....122 Locust St., Clinton
Parker, Donald A.....4396 Evergreen Dr., Adrian
Patmos, Bernard.....127 E. Maumee St., Adrian
Phelan, Alvin J.....102 S. Pearl St., Tecumseh
Raabe, Elmer C.....Morenci
Rawson, A. P. (A).....(No Address)
Richey, Bert R.....765 Manitou Rd., Manitou Beach
Rogers, John D.....146 Toledo St., Adrian
Sarapo, Donato F.....216 N. Broad St., Adrian
Skufis, Eleanor P.....123 E. Chestnut, Adrian
Skufis, Xenophon.....123 E. Chestnut, Adrian
Stark, Emily S.....573 Front St., Adrian
Stewart, Landis C.....108 Nat'l Bank Bldg., Adrian
Thompson, John R., Jr.....1516 Wellington Rd., Birmingham 9, Alabama
Tubbs, Ray V.....120 E. Adrian, Blissfield
Van Dusen, Chad A. (L).....RFD 5, Blissfield
Wentz, Patricia.....114 Nat'l Bank Bldg., Adrian
Whitehouse, Keith H.....Morenci
Wilson, Geo. C.....Box 224, Clinton
Wisely, John.....Copper Country San., Hancock
Wolf, Marvin B.....118 N. Winter St., Adrian
Wynn, Geo. H.....1115 W. Maumee, Adrian

LIVINGSTON COUNTY MEDICAL SOCIETY (118)

Barton, Thos. A.....116 N. Michigan, Howell
Clarke, Niles A.....624 Spencer Rd., Brighton
Daeppen, Charles R.....Mich. State San., Howell
Duffy, Ray M.....Box 106, Pinckney
Fidler, Wm. F.....Michigan State San., Howell
Green, Walter E.....10008 Marlowe, Detroit 27
Harebottle, Norman .....Fowlerville
Hauer, R. Fred.....Fowlerville
Hendren, Jesse J. (R).....Fowlerville
Higby, Thomas F.....Fowlerville
Hill, Harold C.....116 N. Michigan Ave., Howell
Hoffman, Stanley L.....1200 Byron Rd., Howell
May, Louis E.....924 W. Grand River, Howell
McGregor, Archie J.....Brighton
Nicholas, Mildred V.....Michigan State San, Howell
Perry, Florence J. C.....17640 San Rose Ave., Lathrup Village
Polack, Robt. T.....221 Fowler, Howell
Rogers, Robert P.....2511 Pamela Court, Ann Arbor
Schenden, A. J.....6335 W. M-36, Pinckney
Sheng, Luk H. C.....111 W. Grand River, Brighton
Sigler, Hollis L.....110 N. Michigan Ave., Howell
Wadlund, Robert R.....620 Byron Rd., Howell
Walker, Enos G.....4485 Cordley Lake, Lakeland
Woodworth, Edwin S.....1200 Byron Rd., Howell

LUCE COUNTY MEDICAL SOCIETY (122)

Banach, Alexius.....Newberry State Hosp., Newberry
Gibson, Robt. E. L., Jr.....207 W. John St., Newberry
Grennan, Lawrence E.....210 W. John St., Newberry
Hicks, R. P.....210 W. John, Newberry
Purmort, Wm. R., Jr.....Newberry State Hosp., Newberry
Surrell, Matthew A.....210 W. John St., Newberry
Swanson, Geo. F.....VA Hosp. University & Woodland, Philadelphia, Penn.
Thompson, Thos. W.....Newberry State Hosp., Newberry

MACOMB COUNTY MEDICAL SOCIETY (126)

Adler, Morton W.....19188 Appoline St., Detroit 35
Ambrose, Robt. H.....18801 Ten Mile Rd., Roseville
Audretsch, F. E.....36275 Alfred, New Baltimore
Barker, John G.....8050 Warren Blvd., Center Line
Beecher, Alvin J.....21501 Kelly, East Detroit
Bower, Allen B.....Armada
Brady, Milo J.....22233 11 Mile Rd., St. Clair Shores
Bryce, James W.....25219 Van Dyke Ave., Center Line
Buckley, Daniel J.....160 S. Walnut St., Mount Clemens
Charbeneau, Harold P.....67 Cass Ave., Mount Clemens
Collon, David, D.D.S. (A).....Romeo
Corbett, John....407 Monitor Leader Bldg., Mt. Clemens
Croman, Jos. M., Jr.....115 Cass Ave., Mt. Clemens
Curatolo, Victor.....67 Cass Ave., Mt. Clemens
Curlett, James E. (L).....26765 Gratiot Ave., Roseville
Deal, Harold R.....23700 Van Dyke, Warren
DePaulis, Dario C.....22644 Gratiot, East Detroit
Disney, Charles T.....P.O. Box 56, N. End St., Detroit 2
Dudzinski, Edmund J.....424 Washington St., New Baltimore
Ebner, Charles M.....26401 Harper, St. Clair Shores
Ekelman, Seymour B.....37546 S. Gratiot Ave., Mt. Clemens
Ellias, Elmer P.....23700 Van Dyke, Warren
Engels, John A.....69311 N. Main, Richmond
Finn, James Wm.....45569 Van Dyke, Utica
Fulgenzi, Andrew A...17301 E. 8 Mile Rd., East Detroit
Gesser, Charles.....20914 Kelly Rd., East Detroit
Goldman, Bernard J.....243 S. Gratiot Ave., Mt. Clemens
Hartmann, Waldemar B.....1416 S. Gratiot, Mt. Clemens

Hayes, Robert E.....263 S. Gratiot, Mt. Clemens
Heine, Austin W.....99 S. Gratiot Ave., Mt. Clemens
Isbey, Edward K.....856 Westchester Rd., Grosse Pointe 30
Ivkovich, Peter (A).....12501 E. 23 Mile Rd., Utica
Jacobs, Manuel.....23700 Van Dyke Ave., Warren
Jankoska, R. L.....38222 Apple Grove Ct., Mt. Clemens
Jewell, James H.....Roseville Theatre Bldg., Roseville
Kane, John P.....67 Cass Ave., Mt. Clemens
Kane, Peter V.....67 Cass Ave., Mt. Clemens
Kane, Wm. J.....69 Cass Ave., Mt. Clemens
Kingsley, Joyce W., Jr.....18801 10 Mile Rd., Roseville
Kirker, J. G.....68259 Main St., Richmond
Kirtland, Wm. B., Jr.....18801 E. 10 Mile Rd., Roseville
Klein, Alfred A.....23700 Van Dyke, Warren
Kommel, Richard M.....13134 Talbot, Huntington Woods
Lapp, Charles.....7817 McClellan, Utica
Ledbetter, Rene B.....45439 Klinghammer Dr., Utica
Maguire, Andrew J.....45569 Van Dyke, Utica
Martin, Wm. L.....117 S. Main St., Romeo
Mattes, Max W.....18456 Wildemere, Detroit 21
Matthews, C., Jr.....91 Cass Ave., Mt. Clemens
Maxim, Edward S.....253 S. Gratiot, Mt. Clemens
McGinty, John.....243 S. Gratiot, Mt. Clemens
McMorrow, Kathryn.....15341 9 Mile Rd., East Detroit
Merritt, Jule J.....36640 S. Gratiot Ave., Mt. Clemens
Miller, Sidney S.....22048 Gratiot, East Detroit
Moore, Geo. F.....67 Cass Ave., Mt. Clemens
Morris, Gerald W.....44 S. Gratiot, Mt. Clemens
Mulligan, Philip T.....91 Cass Ave., Mt. Clemens
Nance, Marion E.....16666 14 Mile Rd., Fraser
Nutting, Helen M...22631 Greater Mack, St. Clair Shores
Pacho, Marc.....20727 Universal, East Detroit
Paris, Delmo A.....18801 E. 10 Mile Rd., Roseville
Parmelee, N. H.....26758 Gratiot, Roseville
Perez, Florence.....20727 Universal, East Detroit
Reichman, Jos. J.....67 Cass Ave., Mt. Clemens
Reitzel, Rufus H.....199 S. Gratiot Ave., Mt. Clemens
Reizen, Maurice S.....10564 Ludlow, Huntington Woods
Revere, Jos. O.....192 S. Gratiot Ave., Mt. Clemens
Rinkenberger, E. A. (A).....243 S. Gratiot Ave., Mt. Clemens
Rivard, Chas. L.....20825 Mack Ave., G.P.W., Detroit 36
Rivkin, Jos.....44 S. Gratiot Ave., Mt. Clemens
Rizzo, Albert.....21507 Harper Ave., St. Clair Shores
Romanski, Raymond.....St. Joseph Hosp., Mt. Clemens
Roth, Geo. E.....19136 Mendota Ave., Detroit 21
Rothman, Arthur M.....22422 Gratiot Ave., East Detroit
Rourke, Ronald E...21503 Harper Ave., St. Clair Shores
Rousseau, Daniel L.....610 Monitor Leader Bldg., Mt. Clemens
Ruedisueli, C. A.....19 Breitmeyer Pl., Mt. Clemens
Rush, Wm. E.....25815 Harper, St. Clair Shores
Ryan, Jack.....2214 Beverly Blvd., Berkley
Salot, Russell F.....67 Cass Ave., Mt. Clemens
Scher, Jos. N.....130 Cass Ave., Mt. Clemens
Scher, Sydney (A).....132 Cass Ave., Mt. Clemens
Schmunk, Robert F. .....136 Cass Ave., Mt. Clemens
Siegfried, Edward G.....91 Cass Ave., Mt. Clemens
Sims, Wm. N.....Monitor Leader Bldg., Mt. Clemens
Singer, Nelson.....22100 Gratiot Ave., East Detroit
Smith, Milton C.....60 S. Gratiot Ave., Mt. Clemens
Steinberger, Eugene.....23700 Van Dyke, Warren
Stepka, Joseph E.....7817 McClellan, Utica
Stone, Elizabeth A.....Romeo
Stone, Julius.....51 Cass Ave., Mt. Clemens
Strempek, Walter F.....241 N. Main, Romeo
Stryker, Oscar D.....31032 Jefferson Ave., St. Clair Shores
Sturm, Fredk. A.....76 Lochmoor, Grosse Pointe 36
Suksta, Adolph W.....23250 Gratiot, East Detroit
Suzuki, M.....23700 Van Dyke, Warren
Thompson, Alfred A.....126 Cass Ave., Mt. Clemens
Tinkey, L. Leo.....18811 Ten Mile, Roseville
Trinkaus, Wm. F.....22033 Kelly Road, East Detroit
Weiss, Jack I.....23700 Van Dyke Ave., Warren
Whitley, Alec.....30233 Jefferson Ave., St. Clair Shores
Wiley, D. Bruce.....45310 Van Dyke Ave., Utica
Wilson, Norman R.....31118 Harper Ave., St. Clair Shores
Wyte, Wm. C.....263 S. Gratiot Ave., Mt. Clemens
Yamasaki, Ken.....23700 Van Dyke, Warren
Zavela, Dan.....679 N. Renaud, Grosse Pte. Wds.
Zook, Gilbert E. (A).....309 Monitor Leader Bld., Mt. Clemens

MANISTEE COUNTY MEDICAL SOCIETY (130)

Garneau, Robt. R.....606 N. Gaylord Ave., Ludington
Gunderson, Edw. P., Jr.....Greenbush Street, Manistee
Hansen, Ernest C.....78 Maple St., Manistee
Konopa, John F.....57 Poplar St., Manistee
Lalime, Ruth E. (A).....Bear Lake
Lewis, Lee A. (L).....Manistee
Miller, Ernest B.....326 First St., Manistee
Oakes, Ellery A.....401 River St., Manistee
Ramsdell, Homer A.....398 River St., Manistee
Rosenow, K. G.....326 First St., Manistee
Schwarz, Marlowe L.....Onekama
Schwing, Donald N.....326 First St., Manistee

MARQUETTE-ALGER COUNTY MEDICAL SOCIETY (134)

Acocks, James R.....Morgan Hgts. Sanat., Marquette
Amolsch, Arthur L.....St. Lukes Hosp., Marquette
Bennett, Arthur K. (L).....Box 436, Mt. Dora, Fla.
Bennett, Matthew C.....Medical Building, Marquette
Berry, Robt. F.....Medical Building, Marquette
Bertucci, Jos. P.....114 S. First St., Ishpeming
Bolan, Beatrice.....City Hall, Marquette
Bolitho, Thos. B.....Medical Bldg., Marquette
Carter, James M.....Medical Building, Marquette
Casler, Wilbur L.....131 E. Ridge St., Marquette
Conley, Donal T.....1st Natl. Bank Bldg., Marquette
Cooperstock, Moses.....Medical Building, Marquette
Corcoran, Wm. A.....200 S. Main Street, Ishpeming
D'Adesky, R. G.....125 W. Washington, Marquette
Elzinga, Eugene R.....315 N. Front St., Marquette
Erickson, Douglas W.....Ishpeming Hospital, Ishpeming
Grain, Gerald O.....R.R. 1, Box 928, Marquette
Green, Southgate J.....Gwinn
Harkin, John C.....Nestor Block, Marquette
Hettle, Paul J.....211 Savings Bank Bldg., Marquette
Hornbogen, Danl. P.....101 S. Front St., Marquette
Howe, Lloyd W.....101 S. Front St., Marquette
Huffman, Elston R.....427 W. College, Marquette
Jaedecke, Robt. G.....829 Croix, Negaunee
Kane, Elizabeth D.....418 W. Magnetic, Marquette
Knutson, Geo. O.....829 Croix St., Negaunee
Lambert, Warren C.....Medical Building, Marquette
Lindquist, Leo A.....Medical Building, Marquette
Matthews, Norman L.....N. Mich. Child Clinic, Marquette
Moore, Bert E.....524 Mather St., Ishpeming
Mudge, Wm. A.....108 Ridge St., Negaunee
Narotzky, Archie S.....Miracle Circle, Ishpeming
Paine, Raymond L.....416 Teal Lake Ave., Negaunee
Rosenbaum, Louis.....540 E. Division, Ishpeming
Sabin, Fredk. C.....101 S. Front St., Marquette
Schmidt, Merle C.....Medical Building, Marquette

Schultz, Marvin H.....114 N. Front Street, Marquette
Schweinsberg, Sara K. D. (A).....Box 417, Marquette
Sherwood, Clifford (A).....Holy Cross Hosp., Salt Lake City, Utah
Stein, Paul G. (A)....2306 S. Buchanan, Arlington 6, Va.
Swinton, Andrew L. (L).....101 S. Front St., Marquette
Tearnan, Raymond A.....Munising
Van Riper, Paul (L).....Champion
Williams, Reginald G.....524 Mather St., Ishpeming
Wright, Kenneth C.....Medical Building, Marquette

MASON COUNTY MEDICAL SOCIETY (138)

Bacon, Herbert G., Jr.....101 N. Main, Scottville
Boldyreff, Ephriam B.....Custer
Boon, A. Floyd.....203 N. Ferry, Ludington
Carney, John R.....202 N. Park St., Ludington
Carney, Ruth V. C.....202 N. Park St., Ludington
Castellani, R. J.....P.O. Box 349, Ludington
Clark, Harry L. (L).....510 N. Lakeshore Dr., Ludington
Craymer, Austin.....420 N. Rath, Ludington
Dykstra, Chas. L.....108 East State, Scottville
Hoffman, Howard B.....604 E. Ludington Ave., Ludington
Kleinschmidt, Gladys J.....105 N. Delia, Ludington
Martin, Wm. S.....107 Ludington, Ludington
Morrow, Wm. J.....119 N. James St., Ludington
Ostrander, Robt. A.....121 E. Ludington, Ludington
Paukstis, Chas. A.....111 E. Court St., Ludington
Sutter, Wm. F.....220 S. James St., Ludington

MECOSTA-OSCEOLA-LAKE COUNTY MEDICAL SOCIETY (142)

Bruggema, Jacob.....Main St., Evart
Chess, Leo F.....Reed City
Franklin, Benj. L. (L).....Remus
Haldeman, Jack.....1014 S. State St., Big Rapids
Hickox, Leland A.....1014 S. State St., Big Rapids
Ivkovich, Paul.....Reed City
Kilmer, David N. (A).....c/o P. B. Kilmen, M.D., Reed City
Kilmer, Paul B.....Reed City
Kowaleski, Edward H.....Remus
Lincoln, Norman V.....Reed City
Merlo, Frank A.....206 S. Michigan St., Big Rapids
Nelson, Lorenzo R.....R.F.D. 1, Baldwin
Treynor, Thos. P.....126 E. Maple Ave., Big Rapids
Tyson, James L.....1014 South State St., Big Rapids
Van Auken, Edward W.....229 S. Warren, Big Rapids
Walters, James E.....1014 S. State St., Big Rapids
White, John A.....121 S. Michigan St., Big Rapids

MENOMINEE COUNTY MEDICAL SOCIETY (146)

Agneberg, Nils O.....531 1st St., Menominee
Anderson, N. O. (A).....Anse A Galets, La Gonava Haiti WI
Brukardt, Herman R.....534 First St., Menominee
Clay, Joel W.....1146 10th Ave., Menominee
Dewane, Francis J.....413 10th Ave., Menominee
Flanagan, Clarence B.....623 First St., Menominee
Glickman, L. Grant.....958 First St., Menominee
Gonty, Arthur.....St. Joseph Lloyd Hosp., Menominee
Heidenreich, John R.....Daggett
Hopson, George H.....104 10th Ave., Menominee
Hopson, Patricia C.....104 10th Ave., Menominee
Jones, Wm. S.....1146 10th Ave., Menominee
Jones, Wm. S., Jr.....1146 10th Ave., Menominee
Kerwell, Karm C.....P.O. Box 17, Stephenson
Olson, Robt. C.....104 10th Ave., Menominee
Rogers, Raymond J.....3212 16th Street, Menominee
Towey, John W.....Pinecrest Sanat., Powers

MIDLAND COUNTY MEDICAL SOCIETY (154)

Ashcom, Richard.....110 W. Sugnet, Midland
Athay, R. M. (R).....4622 Concord Ct., Midland
Ballmer, Robt. S.....2715 Ashman St., Midland
Bernier, Jos. A.....218 E. Railway, Sanford
Blackhurst, J. F.....2715 Ashman Street, Midland
Blackhurst, Robt. T.....Blackhurst Bldg., Midland
Bowsher, Robt. E.....2719 Ashman St., Midland
Bridge, Robt. G.....2715 Ashman, Midland
Bulmer, Dan J.....116 Harold St., Midland
Buskirk, Maurice D.....110 W. Sugnet, Midland
Devlin, James A.....115 Jerome, Midland
Ellis, Ruth.....124 Townsend St., Midland
Fields, Dozier N., Jr.....515 W. Main, Midland
Gay, Harold H.....Dow Chemical Co., Midland
Gordon, Harold L.....Dow Chemical Co., Midland
Grant, Robert.....116 Harold St., Midland
Grewe, Norman C.....347 E. Main St., Midland
Gronemeyer, Wm. H.....110 W. Sugnet, Midland
Haberstroh, Colleen.....907 Eastman Rd., Midland
Heffernan, D. D.....402 Dartmouth, Midland
Holder, Benj. B.....Dow Chem. Co. Med. Dept., Midland
Hooper, Virgil R.....4005 Orchard, Midland
Howe, Irvin M.....110 W. Sugnet, Midland
Howell, Richard H.....2719 Ashman, Midland
Ittner, Martin J.....217 N. Saginaw Rd., Midland
Kaasa, Laurin J.....4005 Orchard Dr., Midland
Kramer, Chas. G.....Dow Chemical Co., Midland
Linsenmann, Karl W.....312 E. Main, Midland
Marks, V. A.....2706 Louanna, Midland
Maynard, Wm. A.....208 N. Fourth, Coleman
Meisel, Edward H., Jr.....Masonic Bldg., Midland
Moench, G. Fredk.....401 W. Main St., Midland
O'Hora, Bernard A.....110 W. Sugnet Rd., Midland
Pike, Melvin H.....224 E. Larkin, Midland
Pollock, Robert.....Masonic Bldg., Midland
Poznak, Leonard A.....4005 Orchard Dr., Midland
Randolph, Stephen H.....201 E. Ellsworth St., Midland
Redmon, William B.....115 Jerome, Midland
Schoff, Charles A.....2706 Louanna, Midland
Shriner, John W.....902 E. Ashman, Midland
Stewart, Richard.....Dow Medical Dept., Midland
Towsley, Wilbur D.....515 W. Main St., Midland
Ulmer, George.....4005 Orchard, Midland
Voikos, Geo. A. (M).....308 Harmon AFB, Lubbock, Texas
Willison, Chas. H.....122 Townsend St., Midland
Yobst, G. James.....2719 Ashman, Midland

MONROE COUNTY MEDICAL SOCIETY (158)

Ames, Florence D.....2 W. Noble Ave., Monroe
Barrett, C. D., Sr.....106 E. First St., Monroe
Blakey, Leonard C.....745 N. Monroe St., Monroe
Bond, Wm. W.....4 E. Front St., Monroe
Burroughs, J. J.....745 N. Monroe St., Monroe
Cigany, Zoltan B.....Carleton
Clark, Bruce.....8308 Lewis Ave., Temperance
Douglas, Dale W.....17 E. First St., Monroe
Dranginis, E. J. .....Monroe Hospital Monroe
Ewing, Robt. T.....130 Maple Blvd., Monroe
Flanders, John P.....31 Washington St., Monroe
Frary, Reginald A.....423 E. Elm Ave., Monroe
Freud, John W.....1262 N. Macomb St., Monroe
Hensel, Hilda M.....12 E. 4th St., Monroe
Hnatczuk, Nicholas.....Petersburg
Hunter, Marion A.....35 E. Front St., Monroe
Johnson, A. Esther.....751 N. Monroe St., Monroe
Kelso, Saml. N., Jr.....753 N. Monroe St., Monroe
King, John R.....12 East 4th St., Monroe
Laboe, Edward W.....725 N. Monroe St., Monroe
Lammers, Gerald P.....Ida
Loan, G. B.....429 N. Monroe St., Monroe
Long, Edgar C.....1310 N. Macomb St., Monroe
McGeoch, Reginald W.....718 N. Macomb St., Monroe
McMillin, John H.....423 E. Elm St., Monroe
Meier, Walter A.....106 East Front St., Monroe
Middleton, W. S.....219 W. Front Street, Monroe
Pinkus, Hermann K. B.....12 E. 4th St., Monroe
Reisig, Albert H.....1 S. Monroe St., Monroe
Sabal, James.....8308 Lewis Ave., Temperance
Sanger, Emerson J. J.....530 S. Monroe St., Monroe
Sisman, Bernard.....749 N. Monroe St., Monroe
Stephenson, Diehl, Joy O.....15463 S. Monroe St., Monroe
Streicher, Robt. G.....729 N. Monroe St., Monroe
Tomlinson, Ledyard H.....8702 Main, Newport
Wagar, Spencer H.....31 Washington St., Monroe
Weeks, Vernon L.....326 N. Monroe, Monroe
Wilkins, Rolland W.....757 N. Monroe St., Monroe
Williams, Robt. J.....31 Washington St., Monroe
Williamson, Geo. W.....284 Tecumseh St., Dundee

MUSKEGON COUNTY MEDICAL SOCIETY (162)

Allen, Richard T.....768 W. Broadway, Muskegon Hts.
Alt, William J.....Medical Arts Center, Muskegon
Anderson, Alfred J.....1371 Peck St., Muskegon
Askam, Ralph F.....4120 Nobhill Drive., Muskegon
Atkinson, Annie L.....1019 Green Creek Rd., North Muskegon
August, Ralph V.....72 E. Broadway, Muskegon Hts.
Barnard, Helen S.....33 Diana, Muskegon
Barnes, James W.....102 Professional Bldg., Montague
Benedict, Arthur L., Jr.....22 W. Southern Ave., Muskegon
Bloom, Robt. E.....Medical Arts Center, Muskegon
Bolthouse, Robt. E.....2101 Peck St., Muskegon Hts.
Bond, Wm. H.....1377 Peck St., Muskegon
Boyd, DeVere R.....1735 Peck St., Muskegon
Boyd, Jack L.....1735 Peck St., Muskegon
Bradshaw, Park S.....Medical Arts Center, Muskegon
Bultema, James H.....Medical Arts Center, Muskegon
Busard, J. Max.....1200 Ransom, Muskegon
Carlson, Mr. James C. (A).....2453 Winchester Dr., Muskegon
Chapin, Wm. S. (A).....2136 Sanford, Muskegon Hts.
Christophersen, J. W.....1276 Lake Shore Dr., Muskegon
Clapp, Henry W.....88 Strong Ave., Muskegon
Closz, Harold F.....283 W. Western Ave., Muskegon
Clowater, Robert A.....Muskegon Co. San., Muskegon
Cohan, Sol G.....1114 Second St., Muskegon
Crawford, John W.....Medical Arts Center, Muskegon
Cronick, Anne B.....1067 Pine St., Muskegon
Dart, Dorothy O.....3956 Whitehall Rd., Muskegon
Dasler, Adolph F.....1507 Peck St., Muskegon
De Leeuw, Henry.....4090 Higate Rd., Muskegon
Diskin, Frank.....309 Jackson Ave., Muskegon
Dykhuizen, H. D.....289 W. Western Ave., Muskegon
Ellis, Nicholas J.....1891 Lake Shore Dr., Muskegon
Engstrom, Albert D.....126 W. Colby, Whitehall
Farmer, John C.....Medical Arts Center, Muskegon
Fillingham, Enid.....870 N. Second St., Muskegon
Fleischmann, Chas. B. (L).....250 W. Webster Ave., Muskegon
Fles, Robt. J.....1715 Peck St., Muskegon
Folsom, John D.....1706 Peck St., Muskegon
Frandsen, Philip H.....Medical Arts Center, Muskegon
Fugate, E. M.....Medical Arts Center, Muskegon
Gaikema, Everett W.....605 First St., Muskegon
Garber, Frank W.....235 Monroe Avenue, Muskegon
Garrison, Robt. E., Jr.....126 W. Webster Ave., Muskegon
Giese, Douglas H.....204 Mich. Theatre Bldg., Muskegon
Gillard, James L.....1692 Peck St., Muskegon
Goltz, Martha H. (L).....Montague
Greene, Henry P.....840 Pine St., Muskegon
Griffith, Robt. M.....68 E. Broadway, Muskegon Hts.
Hack, Donald W.....Medical Arts Center, Muskegon
Hanley, Wm. J.....315 W. Clay Ave., Muskegon
Harryman, James E.....1200 Ransom St., Muskegon
Hartwell, Shattuck W.....450 W. Western Ave., Muskegon
Harvey, John G. Klemm.....Mercy Hospital, Muskegon
Heneveld, Edward H.....1603 Peck St., Muskegon
Heneveld, John (R).....Brasstown, N. C.
Heneveld, Robt. G.....Medical Arts Center, Muskegon
Hennessy, Mary E. (A).....1200 Ransom St., Muskegon
Herald, Osbie J.....1075 Jefferson, Muskegon
Holly, Leland E.....876 N. Second St., Muskegon
Holly, Leland E., II.....878 N. Second St., Muskegon
Hopkins, James G.....595 Notre Dame, Grosse Pointe 30
Hornbeck, Wm. J.....1200 Ransom St., Muskegon
Jesson, Robt. M.....1200 Ransom, Muskegon
Johnston, E. H.....878 N. Second St., Muskegon
Joistad, Arthur H., Jr.....878 N. Second St., Muskegon
Kane, Thos. J.....179 Strong Ave., Muskegon
Kay, Cecelia S.....1533 Peck St., Muskegon
Keilin, Marie (L).....307 Liberty Life Bldg., Muskegon
Kerr, Howard J.....1441 Lake Shore Dr., Muskegon
Kislov, Richard.....Medical Arts Center, Muskegon
Kleaveland, Ingram J.....1670 Peck Street, Muskegon
Lange, Eugene W.....337 N. Muskegon Blvd., Muskegon
Lapham, Landon M.....123 W. Colby, Whitehall
Laurin, Vilda S. (L).....Medical Arts Center, Muskegon
Lauretti, Emil J.....Medical Arts Center, Muskegon
LeFevre, Geo. L., Jr.....450 W. Western Ave., Muskegon
LeFevre, Wm. M.....315 W. Clay Ave., Muskegon
Lemmen, Lloyd J.....315 W. Clay Ave., Muskegon
Leonard, Mr. A. T. (A).....1067 Pine St., Muskegon
Loder, Leonel L.....289 W. Western Ave., Muskegon
Lowry, Robt. A.....2336 Peck St., Muskegon Hts.
Maire, Lewis E.....1633 Peck St., Muskegon
Mandeville, C. B.....289 W. Western Ave., Muskegon
Maples, Douglas E.....402 Center St., N. Muskegon
Marrs, Jack Winton.....Med. Arts. Bldg., Muskegon
McDiarmid, D. (A).....2021 Lee S.W., Grand Rapids
McNair, John N.....936 Second St., Muskegon
Medema, Paul E.....1017 Sanford St., Muskegon
Meengs, Marvin B.....1725 Peck St., Muskegon
Miller, Phillip L.....1755 Peck St., Muskegon
Mulder, Lambertus.....Medical Arts Center, Muskegon
Mulligan, Allan W. (R).....123 West Larch Ave., Muskegon
Oden, C. L. A.....Medical Arts Center, Muskegon

Paterson, Lester C.....1095 3rd St., Muskegon
Peterson, Wm. F.....1094 Jefferson St., Muskegon
Pettinga, Frank L.....1603 Peck St., Muskegon
Prentice, Edwin W.....1017 Sanford St., Muskegon
Risk, Robt. D.....1160 Ransom St., Muskegon
Scholle, Norbert W.....2500 Peck St., Muskegon Hts.
Sears, Richard.....36 W. Muskegon Ave., Muskegon
Shebesta, Emil M.....Medical Arts Center, Muskegon
Smith, Robert E.....2327 Southwood, Muskegon
Stubbart, F. James.....2416 Peck St., Muskegon Hts.
Swedenburg, Robt. D.....503 Liberty Life Bldg., Muskegon
Swenson, Leland L.....1706 Peck St., Muskegon
Tellman, H. Clay.....302 Med. Arts Center, Muskegon
Thieme, Siegfried W. (L)....12213 Stafford St., Ravenna
Thornton, Eugene S. (L).....289 W. Western Ave., Muskegon
Toy, Chas. M.....1067 Pine St., Muskegon
Tyler, Wm. H.....1435 Peck St., Muskegon
Vandervelde, C. A.....283 W. Western Ave., Muskegon
Vangelder, Wm. C.....Medical Arts Center, Muskegon
Wagenaar, Edward H.....404 Liberty Life Bldg., Muskegon
White, Warren G., Jr.....1624 Peck St., Muskegon
Wiersma, Silas C.....Medical Arts Center, Muskegon
Wildgen, Bernard C.....Medical Arts Center, Muskegon
Wilke, Carl A. (R).....Box 345, Montague
Williams, Edward V.....2501 Baker St., Muskegon Hts.
Yegge, J. P.....2212 Peck St., Muskegon Hts.
Young, Malcolm C.....1700 Clinton St., Muskegon

NEWAYGO COUNTY MEDICAL SOCIETY (166)

Crowe, Findlay C.....White Cloud
Deur, Theodore R.....Grant
DeYoung, Jess.....111 W. Dayton, Fremont
Emerick, Robt. W.....Gerber Memorial Hosp., Fremont
Geerlings, Lambert J.....20 N. Division St., Fremont
Klein, J. Paul.....P.O. Box 111, Fremont
Masters, Brooker L.....111 W. Dayton, Fremont
Moore, Hugh R.....Newaygo
O'Neill, John W.....Dist. Hlth. Dept. 5, White Cloud
Painter, Robert.....Grant
Paxton, Robt. E.....40 W. Sheridan, Fremont
Pedelty, Norman.....Newaygo
Vanden Berg, Tunis.....20 N. Division Ave., Fremont
Veenschoten, Girard.....Hesperia

MEDICAL SOCIETY OF NORTH CENTRAL COUNTIES (150)

Backe, John C.....6401 N. Fifth Ave., St. Petersburg, Fla.
Barstow, Richard G.....Gaylord
Blaha, Vernon B.....Grayling
Boehm, John D. (R).....West Branch
Clippert, C. G.....308 Michigan Ave., Grayling
Coulter, Keith D.....Box 138, Alden
Crandell, Clare H. (R).....West Branch
Dosch, Paul.....Grayling
Egle, Jos. L.....Northern Mich. TB Sanit., Gaylord
Forney, Fred A. (L).....320 S. Fairlane, Midland
Godfroy, Bernard.....Roscommon
Hasty, Earl A.....West Branch
Hayes, Louis F.....Gaylord
Henig, Benj. E.....Grayling
Howarth, Thos. W.....Gladwin
Jardine, Hugh M.....West Branch
Libke, Robert S.....Gaylord
Oppy, Charles L.....Roscommon
Palm, George W. (A).....Pruddenville
Peckham, Richard C.....Gaylord
Rusak, R. D.....Gladwin
Schaiberger, Geo. L.....West Branch
Stealy, Stanley A.....Grayling
Timreck, Harold A.....Gladwin
Van Oosten, Howard E.....117 Burgess, West Branch
Waltz, Paul.....West Branch
Wiegerink, L. T.....West Branch

NORTHERN MICHIGAN MEDICAL SOCIETY (170)

Allen, Robt. F.....Lockwood Hosp., Petoskey
Alm, Bernard T.....418 Petoskey St., Petoskey
Blum, Benj. B.....Burns Clinic, Petoskey
Burns, Dean C.....Burns Clinic, Petoskey
Cameron, Wm. J. (M).....Mission, Kansas
Conkle, Guy C. (L).....Masonic Bldg., Boyne City
Conklin, Frederic L. (A).....Lockwood Gen. Hosp., Petoskey
Conti, Jos. B.....924 E. Mitchell St., Petoskey
Conway, Wm. S.....Burns Clinic, Petoskey
Crippen, Edward F.....126½ State St., Mancelona
Doerr, Gehard M.....Burns Clinic, Petoskey
Drake, Gerald.....511 Waukazoo, Petoskey
Duffie, Don H. (L).....Central Lake
Elliott, Dean C.....Burns Clinic, Petoskey
Frye, S. A.....Burns Clinic, Petoskey
Grate, Lawrence E.....112 Clinton, Charlevoix
Hegener, Aloysius J.....Burns Clinic, Petoskey
Hodges, Roy W. (L).....Mackinaw City
Kirk, Thomas R.....Burns Clinic, Petoskey
Knecht, Richard A.....226 Park Ave., Petoskey
Larson, Walter E.....456 S. Huron, Cheboygan
Lawrie, Guy K.....Burns Clinic, Petoskey
Lentini, Nicholas.....Cheboygan
Litzenburger, A. F.....411 Pearl St., Boyne City
Martin, Robt. G.....103 Clinton, Charlevoix
Mateskon, Victor S.....Burns Clinic, Petoskey
Mayne, Frederick C. (L).....P.O. Box 387, Cheboygan
McKnight, Robt. D.....Burns Clinic, Petoskey
Mertz, Joanne E.....Burns Clinic, Petoskey
Pearson, Robt. E.....215 Water St., Boyne City
Postle, Jack R.....Burns Clinic, Petoskey
Rauch, Carl T.....420 Riverside Dr., Cheboygan
Reus, Leonard W.....226 Park Ave., Petoskey
Rodger, John R.....Bellaire
Saltonstall, G. B.....112 Clinton St., Charlevoix
Savory, John H.....East Jordan
Smith, James R.....Burns Clinic, Petoskey
Spengler, John R.....Burns Clinic, Petoskey
Stringham, James R. (L).....225 Backus St., Cheboygan
Taylor, Robt. M.....Burns Clinic, Petoskey
Van Dellen, Jerrian.....Water St., East Jordan
Webster, Jean H.....Burns Clinic, Petoskey
Weburg, Kathryn D.....Burns Clinic, Petoskey
Zipf, Charles.....Douglas Lake, Pellston

OAKLAND COUNTY MEDICAL SOCIETY (174)

Abbott, Vernon C.....1405 Pontiac St. Bk., Pontiac
Adair, Robin.....800 S. Adams, Birmingham
Adams, Fredk. M.....800 S. Adams, Birmingham
Albert, Donald G.....1665 Twelve Mile Rd., Berkley
Albrecht, Robt. W.....549 Grixdale, Pontiac
Arnkoff, Harry.....218 Riker Bldg., Pontiac
Arena, Joseph A., Jr.....22928 Woodward Ave., Ferndale
Ashare, Raymond.....212 Riker Bldg., Pontiac
Aulie, Hal G.....420 Washington Sq. Bldg., Royal Oak
Awes, Lorraine E.....1411 Pontiac St. Bk. Bldg., Pontiac
Baier, Kurt (A).....862 Chester, Birmingham
Baker, Frederick A. (R).....4575 Motorway Dr., Pontiac
Bannow, Robt. J.....880 Woodward Ave., Pontiac
Barker, Chas. P.....214 Wabeek Bldg., Birmingham
Barker, Howard B.....880 Woodward Ave., Pontiac
Barnes, Donald J.....1126 S. Woodward, Royal Oak
Barrett, John L.....3600 W. 13 Mile Rd., Royal Oak
Bauer, Bruce D.....22643 Stephenson Hwy., Hazel Park
Bauer, Edward G.....101½ N. Saginaw, Pontiac
Bauer, Ernest W., Sr.....22643 Stephenson Hwy., Hazel Park
Bauer, Ernest W., Jr.....22643 Stephenson Hwy., Hazel Park
Baylis, Shelby M.....538 Riker Bldg., Pontiac
Beattie, Willard G.....127 W. Nine Mile Rd., Ferndale 20
Beaubien, Mark S. (A).....460 S. Glenhurst Dr., Birmingham
Beck, Otto O.....308 Wabeek Bldg., Birmingham
Becker, Anne M. W.....2453 Huntington Dr., San Marino, Calif.
Belknap, Warren F.....1809 S. Main St., Pleasant Ridge
Berberian, G. M. (A).....Pontiac Gen'l Hosp., Pontiac
Berg, Richard H.....133 E. Main St., Stanton
Berg, Richard M.....880 Woodward Ave., Pontiac
Berger, Chas. J.....1413 S. Washington Ave., Royal Oak
Berman, Bernard D.....2953 Glendale, Detroit 38
Blackwell, Leonard H. (A).....34 Turner Ave., St. James, Manitoba, Canada
Blakeney, James R.....17 Utica Rd., Pontiac 11
Blue, Jane.....19125 Hillcrest, Birmingham
Boileau, Thornton I...2075 E. 14 Mile Road, Birmingham
Bookmyer, Robt. M.....1890 Southfield, Birmingham
Boucher, Roman E.....306 S. Washington Ave., Royal Oak
Bowers, Chas. L.....199 Barrington Rd., Pontiac
Brady, Neal C.....18628 Devonshire. Birmingham
Brown, Arnold L.....538 Riker Bldg., Pontiac
Bryant, F. W.....201 Washington Sq. Bldg., Royal Oak
Budd, Alexander S. Z.....3511 Lakecrest Dr., Birmingham
Buehrig, Robert.....5790 M 15, Clarkston
Bullard, R. W., Jr.....5790 M 15, Clarkston
Burger, John H.....1775 E. 14 Mile Rd., Birmingham
Burgess, Chas. M.....23235 Woodward Ave., Ferndale 20
Burke, Chauncey G.....35 W. Huron St., Pontiac
Butler, Saml. A. (L).....Pontiac State Hosp., Pontiac
Byberg, Robt. A.....420 Washington Sq., Bldg., Royal Oak
Bylsma, Glenn Wm.....461 W. Huron St., Pontiac
Cabrera, Wm. P. (A).....420 Washington Square Bldg., Royal Oak
Calhoun, Ethel T.....707 Lakeview Ave., Birmingham
Calkins, Edwin A.....37 W. Flint St., Lake Orion
Campbell, K. N.....22928 Woodward Ave., Ferndale
Campbell, Malcolm D.....216 Washington Sq. Bldg., Royal Oak
Carpenter, G. B., Jr.....622 N. Woodward, Birmingham
Carrow, Joyce M.....35 W. Huron St., Pontiac 14
Cefai, Anthony F.....310 Pontiac St. Bank, Pontiac
Chandler, Douglas.....1890 Southfield Rd., Birmingham
Chandler, Jos. H.....1401 S. Washington, Royal Oak
Cheng, James T.....7350 Cooley Lake Rd., Pontiac
Childers, Merle A.....320 Walnut, Rochester
Christensen, Willis L.....109 W. 11 Mile Rd., Royal Oak
Clarke, Harriet A.....130 Seminole, Pontiac
Cline, Alan L.....4299 Roseberry, Drayton Plains
Cobb, Thos. H.....880 Woodward Ave., Pontiac
Cohen, Jack J.....18019 Greenfield Rd., Detroit 35
Cohen, Lewis.....26602 Dundee Rd., Huntington Woods
Collins, Edward F., Jr.....35 W. Huron St., Pontiac
Condon, Frank J.....2401 E. Fourth, Royal Oak
Conner, Edward D.....3856 S. Miller Way, Birmingham
Conrad, Cecil D.....3027 N. Woodward Ave., Royal Oak
Cooley, Roy V.....318 S. Blvd. West, Pontiac
Cooper, Robt. J.....35 W. Huron St., Pontiac 15
Cooper, Robt. S.....3027 N. Woodward Ave., Royal Oak
Corrigan, K. E., Ph.D. (A).....Wm. Beaumont Hospital, Royal Oak
Coucke, Henry O.....1148 S. Woodward Ave., Royal Oak
Crissman, Howell C.....22748 Woodward Ave., Ferndale 20
Crum, Roger E.....440 Riker Bldg., Pontiac
Cudney, Ethan B.....159 Marlborough, Pontiac
Cutler, Wm. M.....800 S. Adams, Birmingham
Dahlgren, Carl W.....3023 Orchard Lake, Keego Harbor
Darling, C. G., Jr.....880 Woodward Ave., Pontiac
Darmstaetter, A. A., Jr.....227 Briggs Bldg., Birmingham
Dayton, Richard C.....114 W. University Dr., Rochester
Decker, Wm. A.....Pontiac State Hosp., Pontiac
Deighton, Murray N.....32316 Grand River, Farmington
De Jongh, Edwin.....Pontiac Motor Div. GMC, Pontiac
Delaney, Malcolm J.....32316 Grand River, Farmington
De Lawter, Hilbert H.....277 Pierce St., Birmingham
Deutsch, Wm. L.....600 W. 11 Mile Rd., Royal Oak
De Vito, H. Louis.....4011 Baybrook Dr., Drayton Plains
Dobski, Edwin J.....880 Woodward Ave., Pontiac
Doerr, Louis E., Jr.....1413 S. Washington, Royal Oak
Donnelly, Wm. J.....246 S. Telegraph Rd., Pontiac
Dorsey, John M., Jr.....1890 Southfield, Birmingham
Drew, Dale R.....880 Woodward, Pontiac
Dunlap, Gregg L.....2870 Orchard Lake Rd., Keego Harbor
Dunn, Lewis E.....3924 12 Mile Rd., Berkley
Durak, Gerald G.....1809 S. Main St., Pleasant Ridge
Durocher, Normand E.....28 N. Saginaw St., Pontiac
Dustin, Robt. W.....498 Merritt Lane, Birmingham
Ekelund, Clifford T.....35 W. Huron St., Pontiac
Elder, Edward E., Jr.....1116 Voorheis, Pontiac
Endress, Zachary F., Jr.....440 Riker Bldg., Pontiac
Engel, John B. (R).....235 Linden Rd., Birmingham
Ensroth, Jack F.....1100 N. Woodward, Birmingham
Ervanian, Alexander.....114 E. Hickory Grove Rd., Bloomfield Hills
Esslinger, John O.....622 N. Woodward Ave., Birmingham
Evseeff, Geo. S.....2685 Amberley Rd., Birmingham
Farnham, Lucius A. (L).....622 Riker Bldg., Pontiac
Ferris, Ralph G.....55 W. Maple Ave., Birmingham
Fink, L. Jerome.....28 N. Saginaw St., Pontiac 11
Fitzpatrick, F. J.....92 Spokane Dr., Pontiac
Flaharty, Wm. J.....25000 W. Ten Mile, Southfield
Flick, John R.....120 W. Second St., Royal Oak
Forest, Jean L. (A).....St. Joseph Mercy Hosp., Pontiac
Fournier, F. E.....Northville State Hosp., Northville
Fox, Ralph M.....855 Ridgewood Rd., Bloomfield Hills
Furlong, Harold A.....940 Riker Bldg., Pontiac
Gaba, Howard B.....17328 Ohio, Detroit 21
Gaber, Ben.....10851 W. 10 Mile Rd., Oak Park 37
Gadbaw, Jos. J.....23607 Farmington Rd., Farmington
Gaensbauer, Ferdinand.....127 Illinois St., Pontiac
Gagliardi, R. A.....880 Woodward Ave., Pontiac
Galpin, Richard R.....525 Southfield Rd., Birmingham
Garber, Max J.....23603 Farmington, Farmington
Gariepy, Bernard F.....120 West 11 Mile Rd., Royal Oak
Gates, Edward M.....35 W. Huron St., Pontiac
Gatley, Cleo R.....97 N. Perry St., Pontiac
Gatley, Leslie W.....97 N. Perry St., Pontiac 14
Gehringer, Norman F.....880 Woodward, Pontiac
Geib, Ormond D.....133 Walnut, Rochester
Geist, Edgar J., Jr.....413 Woodward St., Rochester
Gell, James W.....35 W. Huron St., Pontiac
Gelstein, Lazaro.....45 West Huron St., Pontiac
Gerls, Frank B. (L).....602 Pontiac Bank Bldg., Pontiac
Gibson, James C. (L).....432 Union St., Milford

Gibson, Wellington C.....216 E. Commerce, Milford
Gill, Matthew J.....3115 Franklin Rd., Bloomfield Hills
Glen, Harold.....26559 Grand River, Detroit 40
Goerner, Dorothy M. (A)....1500 Henrietta, Birmingham
Goldstein, Herbert....22100 Coolidge Hwy., Oak Park 37
Goode, Norman J., Jr.....1117 S. Washington Ave., Royal Oak
Gordon, Clayton H.....1099 Cranbrook Rd., Birmingham
Gradolph, Paul L.....23338 Woodward Ave., Ferndale 20
Grant, Wm. A. (L).....204 Hickory, Milford
Gray, Murray H.....22100 Coolidge, Oak Park 37
Green, J. Donald .....217 Briggs Bldg., Birmingham
Green, Ralph S.....24100 Stratford, Oak Park 37
Green, Willard M.....28 N. Saginaw, Pontiac
Grekin, Thos. D.....603 W. 11 Mile Rd., Royal Oak
Gustafson, Everette.....35 W. Huron St., Pontiac
Gutterman, Meyer A.....25085 Coolidge Hwy., Oak Park 37

Haanes, Merle A.....704 Pontiac Bank Bldg., Pontiac
Hackett, Danl. J.....782 Owego Dr., Pontiac
Hagman, George L. (L).....3615 Hunter, Royal Oak
Hague, Gilbert W.....739 Westview Rd., Bloomfield Hills
Halsted, Lee H.....32440 Grand River Ave., Farmington
Hammonds, Everett E.....208 Wabeek Bldg., Birmingham
Han, Maolin.....3358 Auburn Rd., Auburn Heights
Hardy, Geo. C. (L).....240 Oak Lane, Rte. #2, Rochester
Harmon, Lewis G.....1775 E. 14 Mile Rd., Birmingham
Harvey, Campbell (L).....35 W. Huron St., Pontiac 15
Hassberger, John B.....620 N. Woodward Ave., Birmingham
Hathaway, Wm. S.....433½ Main, Rochester
Hayden, H. S., Ph.D., (A).....Wm. Beaumont Hospital, Royal Oak
Henderson, Worth W.....1307 S. Washington, Royal Oak
Henderson, James E.....765 Oakleigh Drive, Bloomfield Hills
Hendren, Owen S.....1408 Pontiac Bank Bldg., Pontiac 14
Henry, Colonel R.....125 W. Nine Mile, Ferndale
Hensley, Chas. B.....248 S. Broadway, Lake Orion
Hershey, Lynn N.....1100 N. Woodward, Birmingham
Hoekman, Aben.....1740 Hamilton Dr., Rte. 3, Pontiac
Hopkins, Melvin, Jr.....900 Baldwin Ave., Pontiac 11
Hoyt, Donald F.....28 N. Saginaw St., Pontiac 14
Hruschka, Myroslaw.....Pontiac State Hosp., Pontiac
Hubert, John R.....880 Woodward Ave., Pontiac 14
Hull, Robt. P. (A).....2109 Northwood Blvd., Royal Oak
Ignatius, Aram A.....1915 E. Nine Mile Rd., Ferndale 20

Jacobi, Rodman C.....37 N. Washington, Oxford
James, Robt. E., Jr.....246 S. Telegraph, Pontiac
Jenkins, Henry L.....29 Orchard Lake Ave., Pontiac

Katz, Sidney F.....17350 Dorset, Detroit 35
Kay, Sherman A.....1026 S. Washington, Royal Oak
Kazdan, Louis L.....13801 W. Nine Mile Rd., Oak Park 37
Keeffe, Eugene J.....880 Woodward Ave., Pontiac
Kemp, Felix J.....880 Woodward Ave., Pontiac
Kemp, W. Lloyd.....525 Southfield Rd., Birmingham
Kendrick, H. F., Jr.....35 W. Huron St., Pontiac
Ketchum, Jesse.....4219 Manor Avenue, Royal Oak
Klewicki, H. A.....22720 Woodward, Ferndale 20
Koehler, Wm. H.....4416 Far Hill Dr., Birmingham
Koltonow, Lawrence.....The Haven San., Rochester
Kozlow, Clifford S.....4274 N. Woodward, Royal Oak
Kozlow, Louise E. Ange..4274 N. Woodward, Royal Oak
Kozonis, Michael C.....28 N. Saginaw St., Pontiac
Krane, Mark (A).....St. Joseph Mercy Hosp., Pontiac
Kripke, Morton J.....2635 Coolidge, Berkley
Kuhel, Eli H.....24764 Southfield Rd., Southfield
Kuhn, Anne C.....4274 N. Woodward, Royal Oak
Kuhn, Henry H.....817 E. Eight Mile Rd., Hazel Park
Kuhn, Robt. E.....4203 W. 13 Mile, Royal Oak
Kurnetz, Ruben.....10851 W. 10 Mile Rd., Oak Park

LaCore, Ivan A.....622 Riker Bldg., Pontiac
Ladd, James E.....1100 N. Woodward, Birmingham
Lahti, Paul T.....3600 W. 13 Mile Rd., Royal Oak
Lakke, Gordon W. (A).....St. Joseph Mercy Hosp., Pontiac
Lamarche, Norman O.....2827 Woodward, Berkley
Lambert, Alvin G.....3027 Woodward, Royal Oak
Lambie, John S. (L).....280 Aspen Rd., Birmingham
Landry, Roy A.....Clarkston Prof. Center, Clarkston
Larson, Alvin R.....880 Woodward Ave., Pontiac
Laux, Philip J., Jr.....3027 N. Woodward, Royal Oak
Leach, Chas. A., Jr.....525 Southfield Rd., Birmingham
Leahy, Etta Link.....600 11 Mile Rd., Berkley
Leichtman, R. R. (A).....461 W. Huron St., Pontiac
Levine, Bernard.....25835 Parkwood, Huntington Woods
Lewis, Sol M.....541 W. Oakridge, Ferndale
Lichtwardt, Harry E.....247 N. Hunter Blvd., Birmingham
Lichtwardt, John R.....247 N. Hunter Blvd., Birmingham
Ling, T. W.....23607 Farmington Rd., Farmington
Linn, Herman J.....3601 W. 13 Mile Rd., Royal Oak
Lockwood, Clement E. (L).....113 Martha St., Holly
Longyear, Harold W.....3019 N. Woodward, Royal Oak
Lowery, Anthony J.....1538 Union Lake Rd., Pontiac
Lussos, A. S.....70 Bloomfield Terrace, Pontiac
Lutes, Byron B.....1401 S. Washington Ave., Royal Oak
Lyons, Robt. T.....336 Riker Bldg., Pontiac

Manz, Howard N.....23607 Farmington Rd., Farmington
Marcotte, Oliver J.....25000 W. 10 Mile Rd., Southfield
Margrave, Edmund D.....306 W. 10 Mile Rd., Royal Oak
Margulis, R. Ralph.....1100 N. Woodward Ave., Birmingham
Mark, Hansi.....21934 Stephenson Hwy., Hazel Park
Markley, John M.....655 Ridge Rd., Bloomfield Hills
Marra, John J.....461 W. Huron St., Pontiac
Martin, Francis A.....880 Woodward, Pontiac
Mason, Robt. J.....618 N. Woodward Ave., Birmingham Birmingham
Mathes, Chas. J.....24414 Farmington Rd., Farmington
McCain, French H.....628 N. Woodward Ave.,
McCandliss, D. H.....1030 Riker Bldg., Pontiac
McConkie, James P.....2425 W. Lincoln, Birmingham
McElroy, Wm. J., Jr.....420 East Fourth St., Royal Oak
McEvoy, Francis J.....1715 Crooks Rd., Royal Oak
McHugh, James M.....20131 James Couzens, Detroit 35
McInerney, Thos. S.....2026 Laurome, Royal Oak
McIntyre, Kenneth E.....779 Grand Marais, Grosse Pte. Park
McLaughlin, J. H.....614 North Woodward, Birmingham
McNeill, Howard H.....83½ S. Saginaw, Pontiac 14
McPhee, Edward C.....880 Woodward, Pontiac
McWhirter, W. W.....1401 S. Washington Ave., Royal Oak
Mehas, Constantine P.....300 Hickory Grove, Bloomfield Hills
Meinke, Herman A.....817 E. Eight Mile Rd., Hazel Park
Meisner, Harry E.....25497 Hereford, Huntington Wds.
Mercer, Frank A.....28 N. Saginaw St., Pontiac
Merrill, Lionel N. (R).....Box 125, Naubinway
Milgrom, Sidney.....1229 S. Washington St., Royal Oak
Miller, Arthur C.....17988 Buckingham, Birmingham
Miller, Hazen L.....306 S. Washington Ave., Royal Oak
Miller, Hubert.....20233 Sorrento, Detroit 35
Miller, Sidney.....800 S. Adams, Birmingham
Mimura, James T.....1401 S. Washington, Royal Oak
Mitchell, Burton M. (R)....1600 Inverness Ave., Pontiac
Moloney, James C.....240 Daines, Birmingham
Monroe, John D.....1070 N. Telegraph Rd., Pontiac
Montgomery, J. C.....25717 Coolidge, Oak Park 37
Morin, Leonard A.....13300 Oak Crest Court, Oak Park 37
Mueller, Elmer J.....1775 E. 14 Mile, Birmingham
Mumby, Clinton J.....1115 Pontiac Bank Bldg., Pontiac
Munson, Harry L.....Mackenzie Clinic, Walled Lake
Murguz, Atalay M.....1625 E. Fourth, Royal Oak
Nalepa, Eugene J.....880 Woodward Ave., Pontiac
Naz, John F.....5790 M 15, Clarkston
Nessel, Jack H.....35 W. Huron St., Pontiac
Newcomb, Arnold B.....19834 Riverside Dr., Birmingham
Newlander, W. O.....28119 John R Street, Madison Hts.
Nichamin, Samuel J.....25085 Coolidge Hwy., Oak Park
Nickerson, Ivey D.....6245 Golfview Dr., Birmingham

Niederluecke, D. C.....1402 State Bank Bldg., Pontiac
Nosanchuk, Jos. I.....28 N. Saginaw St., Pontiac
Obenauf, Walter H.....Box A, Pontiac
O'Donnell, C. H.....23338 Woodward Ave., Ferndale 20
Oliphant, Wm. W.....37 W. Flint St., Lake Orion
Olsen, Richard E.....900 Woodward Ave., Pontiac
Ormond, John K. (L).....880 Woodward, Pontiac
Ott, Harold A.....3019 N. Woodward, Royal Oak

Palmer, Hayden D.....35 W. Huron St., Pontiac
Patrick, Chas. I.....4721 Dixie Hwy., Drayton Plains
Pauli, Theodore H.....35 W. Huron St., Pontiac 14
Payton, Chas. F.....1719 Crooks Rd., Royal Oak
Pear, Erwin G.....3027 N. Woodward Ave., Royal Oak
Pearce, James F.....306 S. Washington Ave., Royal Oak
Peeke, Edwin S. (A).....VA Hospital, Dallas 16, Texas
Peirce, Wm. H.....600 N. Woodward, Birmingham
Pelletier, Chas. J.....1111 N. Campbell, Royal Oak
Petroff, Geo. N.....219 Cherokee Dr., Pontiac
Petz, Arthur I.....25000 W. Ten Mile, Southfield
Pool, Robert, Jr.....451 N. Eton, Apt. E 3, Birmingham
Porter, Kenneth F.....2709 Bradway Blvd., Birmingham
Ports, Preston W.....33108 Grand River Ave., Farmington
Poznanski, W. A.....1100 N. Woodward Ave., Birmingham
Prather, Frank W.....347 N. Main, Milford
Prevette, Isaac C.....10 W. Huron St., Pontiac 14
Pridmore, John.....493 Tilmor Dr., Pontiac

Quarton, Albert E., Jr.....542 Pilgrim Rd., Birmingham
Quinn, James R., Jr.....2070 W. Valley Rd., Bloomfield Hills

Ranney, Kenneth I.....1100 N. Woodward, Birmingham
Raynale, George P. (L).....302 Wabeek Bldg., Birmingham
Read, James A.....610 N. Woodward, Birmingham
Rech, Wm. R.....Mackenzie Clinic, Walled Lake
Reid, Fred T.....49 W. 14 Mile Rd., Clawson
Reutter, Carolyn.....1250 Mauer, Pontiac
Richard, Robert E.....1719 Crooks Rd., Royal Oak
Richardson, Robt. P.....25717 Coolidge, Oak Park 37
Riggs, Harry L.....31 Orchard Lake Ave., Pontiac
Riker, Aaron D.....35 W. Huron St., Pontiac
Roehm, Harold R.....319 Wabeek Bldg., Birmingham
Rowley, Laurie G.....4400 Dixie Highway, Drayton Plains
Rupp, Edson G., Jr.....1775 E. 14 Mile, Birmingham
Rush, Alva D., Jr.....391 Hamilton, Birmingham
Ruskin, David S.....26021 Coolidge Hwy., Oak Park 37
Russell, Vincent P.....324 Washington Sq. Bldg., Royal Oak
Rutzky, Julius.....St. Joseph Mercy Hosp., Pontiac
Ruva, Jos. J.....4463 Dixie Hwy., Drayton Plains

St. John, Harold A.....35 West Huron St., Pontiac 15
Salisbury, C. S.....21580 Greenfield, Oak Park 37
Samborski, Anne H.....32316 Grand River, Farmington
Sanford, Glenn A.....1080 W. Huron, Pontiac
Sansone, Thos. J.....413 Woodward St., Rochester
Satersmoen, Theodore.....Pontiac State Hosp., Pontiac
Schirle, Jos. L.....1116 Voorheis Rd., Pontiac
Schlecte, Eve L.....120 Second Ave., Rochester
Schlecte, I. Carl.....120 Second Ave., Rochester
Schmitt, Phillip E.....1775 E. 14 Mile, Birmingham
Schoenfeld, Robt. J.....316 Wabeek Bldg., Birmingham
Scholes, Danl. R.....277 Pierce St., Birmingham
Schorling, Otis W.....815 Main, Rochester
Schuneman, Howard A.....23760 Woodward Ave., Pleasant Ridge
Seaborn, Arthur J.....1413 S. Washington Ave., Royal Oak
Segula, Robt. L.....35 W. Huron St., Pontiac 15
Selman, John H.....3306 Auburn Rd., Auburn Heights
Selman, Robt.....65 Blmfld. Terr. Apts., Pontiac 19
Sempere, Chas. R.....522 Riker Bldg., Pontiac
Sewell, Geo. R.....6181 Indianwood Trail, Birmingham
Shadley, Maxwell L.....94 Ottawa Dr., Pontiac
Shea, James Joseph.....440 Riker Bldg., Pontiac
Sheffield, Loren C.....35 W. Huron, Pontiac
Sheridan, Francis M.....1307 S. Washington St., Royal Oak
Siffring, Loren W.....114 W. University Dr., Rochester
Simpson, Edward K. (L).....2 Sunset Avenue, Chatham, Ont., Canada
Simpson, John R.....800 S. Adams, Birmingham
Smith, Carleton A.....822 Riker Bldg., Pontiac
Smith, Donald S.....135 Wenonah Dr., Pontiac
Smith, Geo. E.....629 Washington Sq. Bldg., Royal Oak
Snyder, Arthur M.....23200 Woodward Ave., Ferndale 20
Somers, Donald C.....2338 N. Woodward Ave., Royal Oak
Somerville, Wm. J.....145 Cambridge, Pleasant Ridge
Sosin, Allen.....23603 Farmington Rd., Farmington
Spademan, Loren C.....484 Warren Court, Birmingham
Spencer, Lloyd H.....1219 S. Washington Ave., Royal Oak
Spoehr, Eugene L.....22832 Woodward Ave., Ferndale 20
Spohn, Earle W.....201 S. Center St., Royal Oak
Stageman, John C.....28 N. Saginaw St., Pontiac
Stahl, Harold F.....850 Lapeer Rd., Oxford
Stanley, Wm. F.....1148 S. Woodward, Royal Oak
Starker, Clarence T. (L).....80 E. Iroquois Rd., Pontiac
Steffes, Everette M.....3345 Coolidge Highway, Berkley
Steinberg, Norman N.....1223 S. Washington Ave., Royal Oak
Stolpman, A. Kenneth....640 N. Woodward, Birmingham
Stratton, Donald P.....3601 W. 13 Mile Rd., Royal Oak
Stuecheli, Milton B.....1084 Willow Lane, Birmingham
Sutton, Palmer E.....30153 Bristol Lane, Birmingham 5
Swickle, Edward F.....17 S. Main, Clawson
Szappanyos, Bela.....2480 W. Maple, Birmingham
Tauber, Abraham.....28 N. Saginaw St., Pontiac
Teshima, John Y.....22720 Woodward Ave., Ferndale 20
Touma, Alfred.....735 S. Washington, Royal Oak
Trumpour, Donald J.....414 Main St., Rochester
Ulgenalp, Attila O. (A).....Bloomfield Ter., Apt. 60 Pontiac
Urwiller, K. L.....1772 Taunton, Birmingham
Vanden Berg, Kenneth.....35 W. Huron St., Pontiac
Van Zoeren, Jay J.....937 Rock String Rd., Birmingham
Vaught, Richard K.....2009 Crooks Rd., Royal Oak
Virga, Geo. M.....715 N. Main St., Royal Oak
Wagner, Ruth E.....201 W. 11 Mile Rd., Royal Oak
Wake, Douglas L.....1406 Woodsboro, Royal Oak
Wangner, William F.....1401 S. Washington, Royal Oak
Ward, W. Paul.....6631 Castle Drive, Birmingham
Warner, Fredk. O.....3245 Sashabaw Rd., Drayton Plains
Watson, Thos. Y.....640 N. Woodward, Birmingham
Weaver, Arthur.....809 Pontiac State Bank Bldg., Pontiac
Webber, Lynn F.....7350 Cooley Lake Road, Pontiac
Wegrzyn, George C.....2556 Endsleigh Dr., Birmingham
Weidner, John H.....2075 E. 14 Mile, Birmingham
Wendling, Dieter.....1401 S. Washington, Royal Oak
Wessels, Robt. R.....302 Wabeek Bldg., Birmingham
Westfall, Edwin J.....1665 12 Mile Rd., Berkley
Westmaas, Wm. J.....364 Roanoke St., Birmingham
White, R. Hamilton.....384 Hamilton Ave., Birmingham
Wiant, John L.....258 Riggs Bldg., Birmingham
Wigent, Ralph D.....809 Pontiac St. Bk. Bldg., Pontiac
Williams, Chas. R.....13108 Balfour Rd., Huntington Woods
Williams, John P.....28 N. Saginaw, Pontiac 14
Willis, Maurice E.....28 N. Saginaw, Pontiac 14
Willis, Robt. L., Jr.....Wm. Beaumont Hosp., Royal Oak
Wilson, Albert C.....240 W. Daines, Birmingham
Woodward, Robert D.....1100 N. Woodward Ave., Birmingham
Ylvisaker, John R.....880 Woodward Ave., Pontiac
Young, Arthur R.....35 W. Huron St., Pontiac 15
Ytshar, Zwi H.....25000 W. Ten Mile, Southfield
Zackheim, Herschel S.....13102 Talbot, Huntington Woods
Zimmerman, Walter J.....32340 Sylvan Lane, Birmingham
Zinterhofer, J. J., Jr.....27621 Santa Barbara Dr., Lathrup Village
Zujko, Alphonse J.....880 Woodward, Pontiac

OCEANA COUNTY MEDICAL SOCIETY (178)

Davis, Linford J.....315 State St., Hart
Diehl, Clarence E., Jr.....204 N. Michigan Ave., Shelby
Flint, Chas. H. (A).....Box 790, Thermopolis, Wyo.
Hasty, Willis A.....405 State St., Shelby
Mullen, Warren R.....Pentwater
Robinson, Wm. G.....219 State St., Hart
Vrbanac, John J.....R.R. 1, Hart
Wood, Merle G.....19 Courtland St., Hart

ONTONAGON COUNTY MEDICAL SOCIETY (182)

Archibald, Donald H.....Box 223, Ontonagon
Bender, Jesse L. (L).....Greenland
Hogue, Harold B.....Ewen State Bank Bldg., Ewen
Lahti, Carl R.....800 Zinc St., Ontonagon
Strong, Wm. F.....River St., Ontonagon
Vilardo, Ross.....White Pine

OTTAWA COUNTY MEDICAL SOCIETY (186)

Arendshorst, Wm.....121 W. 24 St., Holland
Basel, Arthur R.....41001 Seven Mile Rd., Northville
Bazuin, Chas. H.....313 N. River Ave., Holland
Beernink, Ernest H.....408 Fulton St., Grand Haven
Bloemendaal, Dirk C.....351 N. Main St., Zeeland
Bloemendal, W. B.....224 Washington St., Grand Haven
Boersma, Vernon L.....121 W. 24 St., Holland
Bonzelaar, Alvin.....788 Columbia, Holland
Boone, Cornelius E.....22 E. Central Ave., Zeeland
Bulthuis, Jerry E.....Jamestown
Clark, Nelson H.....17 W. 10th St., Holland
Cook, Carl S.....121 W. 24th St., Holland
DeVries, Harold G.....30 E. 9th St., Holland
DeVries, Peter J.....214 Washington St., Grand Haven
DeYoung, Fredk. W.....Spring Lake
Endean, Donald H.....121 W. 24th St., Holland
Frieswyk, Melvin J.....241 E. Main St., Zeeland
Groat, Frank L.....631 Franklin St., Grand Haven
Hager, Ralph .....Hudsonville
Hamelink, Marinus H.....700 W. 26th St., Holland
Harms, Herman P.....17 W. 10th St., Holland
Heard, Wm.....504 Park St., Grand Haven
Kearney, Jos. B.....121 W. 24th St., Holland
Kemme, Gerrit J.....R. No. 3, Zeeland
Kitchel, John H.....414 Franklin St., Grand Haven
Kitchel, Mary F. S.....414 Franklin St., Grand Haven
Kools, Wm. C.....194 W. 11th St., Holland
Kuipers, Siebe W.....93 E. 29th, Holland
Long, Chas. E. (L).....222 Franklin St., Grand Haven
McArthur, Peter A.....414 Franklin, Grand Haven
Moerdyk, Wm. J.....120 W. 14th St., Holland
Nykamp, Russel R.....111 E. Main St., Zeeland
Post, J. Jay.....Allendale
Rottschaefer, Wm.....17 W. 10th St., Holland
Rypkema, Willard M.....228 Washington, Grand Haven
Schaftenaar, R. H.....86 E. 28th St., Holland
Smit, George J.....Holland
Smit, Henry .....Hamilton
Stobbelaar, Robt. H.....107 S. Second, Grand Haven
Ten Have, Ralph.....1030 Orchard, Grand Haven
Ten Pas, Henry W.....293 W. 29th St., Holland
Timmerman, Eugene C.....Coopersville
Van Appledorn, C. J.....99 W. 23rd St., Holland
Vander Berg, Edwin E.....17 W. 10th St., Holland
Van der Velde, Otto.....33 W. Eighth, Holland
Vande Waa, Alfred J.....200 E. Main St., Zeeland
Van Kolken, P. J.....509 Franklin Ave., Grand Haven
Veenstra, Bernard M.....Grand Haven
Ver Duin, John W.....223 Washington, Grand Haven
Verkaik, Peter .....Hudsonville
Wells, Kenneth N. (A)..119 W. Savidge St., Spring Lake
Westrate, Warren K.....17 W. 10th St., Holland
Westrate, Wm., Jr.....17 W. 10th St., Holland
Westrate, Wm., Sr.....17 W. 10th St., Holland
Winter, John K.....726 State St., Holland
Winter, Wm. G., Jr.....630 State St., Holland
Yff, John H.....511 E. Central, Zeeland
Yonkman, Fredk. F.....58 Pomeroy Rd., Madison, N. J.

SAGINAW COUNTY MEDICAL SOCIETY (190)

Ackerman, Gerald L.....124 S. Jefferson Ave., Saginaw
Albers, Millard J.....1227 N. Michigan Ave., Saginaw
Anderson, Wm. K.....845 St. Andrews Rd., Saginaw
App, Robt. G.....520 W. Genesee Ave., Saginaw
Bagley, Ulysses S. (R).....1401½ N. 6th St., Saginaw
Baker, Ophelia P.....125 Church St., Freeland
Baker, Thomas A.....125 Church St., Freeland
Bass, Vernon V.....826 N. Michigan Ave., Saginaw
Bellinger, Don H., D.D.S. (A).....501 2nd Nat'l Bank Bldg., Saginaw
Berberovich, Thos. F.....2005 N. Michigan St., Saginaw
Bishop, Harry M.....515 S. Jefferson Ave., Saginaw
Bratrud, T. E.....29 W. Hannum Blvd., Saginaw
Brender, Friedrich P.....Frankenmuth
Bruggers, Laurence.....1703 N. Michigan Ave., Saginaw
Bucklin, Robt. V.....1447 N. Harrison St., Saginaw
Bullington, Bert M.....2000 Court St., Saginaw
Burnett, Quinter M.....1714 Union St., Saginaw
Busch, Frank J.....1731 N. Michigan St., Saginaw
Butler, Milton G.....502 S. Jefferson Ave., Saginaw
Cady, Donald J.....2002 Court St., Saginaw
Cady, Fredk. J., Jr.....402 S. Jefferson Ave., Saginaw
Cady, Fredk. J.....402 S. Jefferson Ave., Saginaw
Cameron, Allan K.....1314 S. Jefferson Ave., Saginaw
Campbell, Lloyd A. (R).....335 Brockway Pl., Saginaw
Caumartin, Hugh T.....1537 S. Washington Ave., Saginaw
Chisena, Peter R.....6221 Dixie, Bridgeport
Choate, Frances S.....1213 N. Michigan Ave., Saginaw
Claytor, Archer A.....603 N. 3rd Ave., Saginaw
Cortopassi, Andre J.....326 S. Washington Ave., Saginaw
Cortopassi, Vital E.....324 S. Washington Ave., Saginaw
Cory, Chas. W.....1227 N. Michigan, Saginaw
Cresswell, T. A.....319 1st Savings & Loan, Saginaw
Cullen, Geo. (A).....2529 N. Clinton St., Saginaw
Curts, James H.....1205 N. Michigan Ave., Saginaw
Davenport, Clyde P.....703 W. Genesee, Saginaw
Derifield, R. S. (A).....25 Westbrook Ct., Saginaw
DeYoung, Wm. A.....1447 N. Harrison, Saginaw
Dowidat, Raymond W. (A).....608 Westfield, Saginaw
Durman, Donald C.....408 S. Jefferson Ave., Saginaw
Ely, Cecil W.....1820 Janes Ave., Saginaw
Ernst, Arthur R. (R)..4004 Woodland Dr., McLean, Va.
Farley, Albert W.....1803 N. Michigan Ave., Saginaw
Feeheley, Robt. D.....3521 State, Saginaw
Fleschner, Thos. E.....Birch Run
Friedrick, David F. (A)....4620 Monroe Blvd., Dearborn
Galsterer, Edwin C.....128 S. Jefferson Ave., Saginaw
Gamon, Adam E., II.....2004 Court St., Saginaw
Gardner, Joe H.....815 N. Michigan Ave., Saginaw
Gerard, Roy J.....1500 Gratiot, Saginaw

Gilmore, Robt. D.....234 W. Saginaw, Merrill
Goldner, Richard D.....1024 N. Michigan, Saginaw
Gomon, Louis D.....1203 N. Michigan Ave., Saginaw
Goodsell, John O.....408 S. Jefferson, Saginaw
Goodsell, J. Orton, D.D.S. (A).....501 2nd Nat'l Bank Bldg., Saginaw
Goodwin, J. E.....418½ W. Genesee, Saginaw
Grigg, Arthur P.....320 N. Michigan Ave., Saginaw
Hand, Eugene A.....126 N. Franklin St., Saginaw
Harvie, Lloyd C. (L).....112 S. Jefferson Ave., Saginaw
Heavenrich, Robt. M.....1107 Gratiot Ave., Saginaw
Heilbronn, Duane B.....1703 N. Michigan, Saginaw
Helmkamp, Herbert O.....333 S. Jefferson, Saginaw
Hester, Eustace G.....2031 N. Michigan Ave., Saginaw
Hill, Victor L.....124 S. Jefferson Ave., Saginaw
Hubinger, H. L. (A)..501 2nd Nat'l Bank Bldg., Saginaw
Hyslop, Wm. T.....1610 Gratiot Ave., Saginaw
James, John W.....1021 W. Genesee St., Saginaw
Jarvi, Rudolph M.....1107 Gratiot Ave., Saginaw
Jiroch, Ralph S. (L).....202 Wiechmann Bldg., Saginaw
Johnstone, Kermit T.....Box 2272 S. Side P.O., Saginaw
Jordan, Leo A.....1524 E. Genesee St., Saginaw
Kerr, Wm. B.....300 S. Michigan St., Saginaw
Kickham, Edward F.....309 S. Jefferson Ave., Saginaw
Kidd, James G. (A).....1500 Weiss St., Saginaw
Kleekamp, Herbert G.....1005 Gratiot Ave., Saginaw
Kleinschmidt, Earl E.....3625 Webber St., Saginaw
Kolesar, Robt. C.....1005 Gratiot, Saginaw
Kowals, Francis V...Med. Dir. Chec. Serv. GMC, Saginaw
Kretschmer, Thos. V.....1232 N. Michigan Ave., Saginaw
Lassignal, Jules C.....2125 Bay St., Saginaw
Ling, Ernest M. (R).....R.D. 2, Spring Lake
Ling, Kenneth C.....Hemlock
Lippit, Deveroux H.....2435 Midland Rd., Saginaw
Lohr, Oliver W.....Box 806, Saginaw
Lohr, Thos. O.....1135 N. Michigan Ave., Saginaw
Love, Neil W.....505 W. Tuscola, Frankenmuth
Luger, Fredk. E.....303 N. Jefferson Ave., Saginaw
Lurie, Robt. I.....2525 S. Washington Ave., Saginaw
Lyle, Richard C.....Bridgeport
Mahaney, Thos. P.....3521 State St., Saginaw
Manning, John E.....815 N. Michigan Ave., Saginaw
Manning, John W., III.....203 Ardussi, Saginaw
Markey, Francis L.....808 N. Michigan Ave., Saginaw
Markey, Joseph P.....808 N. Michigan Ave., Saginaw
Martzowka, Wm. P.....415 W. Genesee St., Saginaw
Mason, Wm. G.....1107 Gratiot Ave., Saginaw
Matthews, Harry C.....1227 N. Michigan Ave., Saginaw
Maurer, John.....1109 Elmdale, Saginaw
Mayne, Harold E.....120 N. Michigan, Saginaw
McKinney, A. R. (L)....330 S. Washington St., Saginaw
Meadows, Jos. M. (A)....Ypsilanti State Hosp., Ypsilanti
Meyer, Henry J. (L).....6243 Dixie Hwy., Bridgeport
Miller, Glenn F.....404 S. Warren Ave., Saginaw
Moon, A. Raymond (L).....1008 Hancock, Saginaw
Morgrette, Leonard J.....603 S. Jefferson Ave., Saginaw
Mudd, Richard D.....Chev. Grey Foundry, Saginaw
Murphy, Albert P.....303 N. Michigan Ave., Saginaw
Murphy, Richard T., D.D.S. (A).....1718 N. Michigan, Saginaw
Murray, Morris J.....603 S. Jefferson Ave., Saginaw
Nelson, Oscar A.....120 N. Michigan Ave., Saginaw
Nelson, Robert E. (A).....1500 Weiss St., Saginaw
Noble, Paul R.....1447 N. Harrison, Saginaw
Northway, Robt. O.....124 S. Jefferson Ave., Saginaw
Novy, Frank O.....420 S. Jefferson Ave., Saginaw
Olson, Carl P.....2505 Court St., Saginaw
Ostrander, Frank W. (L).....Freeland
Phillips, Homer A.....124 S. Jefferson Ave., Saginaw
Pietz, Fredk.....221 N. Michigan Ave., Saginaw
Potvin, Clifford D. (A).....161 Heyn St., Saginaw
Powers, Robt. F.....142 Wylie, Saginaw
Prather, Perry E.....1227 N. Michigan Ave., Saginaw
Prinsell, Gustave G. (M).....P.O. Box 33, Sierra Leone, W. Africa
Radai, Joseph L.....3900 Holland Rd., Saginaw
Rector, Robt. D. (A).....2201 State St., Saginaw
Reimers, Gerald F.....4046 Hess St., Saginaw
Richards, Ned W.....3518 State St., Saginaw
Richter, Harry J.....705 Adams, Saginaw
Roggen, Ivan J.....1227 N. Michigan, Saginaw
Ruskin, Dave B.....120 N. Michigan Ave., Saginaw
Ryan, Richard S.....633 S. Washington Ave., Saginaw
Sample, John T. (L).....Box 2254, Saginaw
Sargent, Donald V.....1703 N. Michigan Ave., Saginaw
Schneider, A. J. N.....509 S. Jefferson Ave., Saginaw
Schultz, Frank R.....147 W. Broad St., Chesaning
Sharp, Martin C.....1803 N. Michigan Ave., Saginaw
Shek, John L.....808 N. Michigan Ave., Saginaw
Sheldon, Suel A.....124 S. Jefferson, Saginaw
Sherman, John W.....1642 Hemmeter Rd., Saginaw
Siler, D. E.....1827 N. Michigan Ave., Saginaw
Skowronski, C. A.....1401 E. Genesee St., Saginaw
Slack, Walter K. (A).....625 S. Jefferson Ave., Saginaw
Slade, Homer G.....1520 N. Michigan Ave., Saginaw
Stahly, Edward H.....Saginaw County Hosp., Saginaw
Stander, Aaron C.....1411 Court St., Saginaw
Stewart, Geo. W.....1902 Janes St., Saginaw
Sulfridge, Hugh L., Jr.....512 N. Michigan Ave., Saginaw
Thompson, Arthur B.....2144 Ottawa St., Saginaw
Tiedke, Gunther E.....120 N. Michigan Ave., Saginaw
Toshach, Clarence E.....3655 Schust Rd., Saginaw
Toteff, Robert J.....2 Chippewa Court, Saginaw
Tramitz, Melvin E.....Saginaw Gen Hosp., Saginaw
Underhill, Wm. G.....214 Trier, Saginaw
Vitu, Robert L.....808 N. Michigan Ave., Saginaw
Volk, Vladimir K...Saginaw Co. Hosp., Box 65, Saginaw
Wallace, Herbert C. (M).....118 S. Oakley, Saginaw
Webb, Walter L.....1502 Wadsworth, Saginaw
Weiss, Arno W.....3521 State St., Saginaw
Westlund, Norman.....349 S. Weadock, Saginaw
Wright, Edwin M.....128 Lynn, Saginaw
Yntema, Stuart.....331 S. Jefferson Ave., Saginaw

ST. CLAIR COUNTY MEDICAL SOCIETY (194)

Bailey, Robt. S.....400 Michigan Bank Bldg., Port Huron
Banting, Kenneth C...403 Peoples Bank Bldg., Port Huron
Barss, J. A.....1209 Tenth St., Port Huron
Battley, John C. S.....940 Military St., Port Huron
Beck, Frank K.....901 Lapeer Ave., Port Huron
Beer, Jos. F.....104 N. Riverside Ave., Saint Clair
Bennett, Wm. G.....210 S. Main St., Yale
Borden, Chas. L.....216 Sperry Bldg., Port Huron
Bottomley, Thos. H., Jr.....1102 Sixth St., Port Huron
Boughner, Walter H.....325 Pleasant St., Algonac
Bovee, Marion E. (L).....2208 Stone St., Port Huron
Bowden, Wm. S.....137 S. Water St., Marine City
Bridge, Ezra V.....416 Edison Blvd., Port Huron
Brush, Howard O.....612 Peoples Bank Bldg., Port Huron
Cantwell, John D., Jr.....619 River St., Port Huron
Carney, Frank V. (R)....1065 N. Riverside St., St. Clair
Carrie, Robt. G.....1423 Michigan Ave., Algonac
Cleland, Wm. D., Jr.....Medical Arts Bldg., Port Huron
Clifford, Robt. P.....506 S. Riverside Dr., St. Clair
Clyne, Benj. C.....103 N. Main St., Yale
Cooper, Thos. H. (L).....911 Lapeer Ave., Port Huron
Coury, John J., Jr.....1209 Tenth St., Port Huron
Davison, Wm. T.....1108 Military St., Port Huron
Dinnen, Wm. J., Jr.....804 Huron Ave., Port Huron
Douvas, Nicholas G.....311 Pine St., Port Huron
Franke, Armin T.....902 Tenth Ave., Port Huron
Fulton, Harold E., Jr.....310 E. Water St., Port Huron
Gholz, Anthony C.....Medical Arts Bldg., Port Huron
Gilmore, John R...317 Michigan Bank Bldg., Port Huron
Hazledine, H. J.....4406 Gratiot Ave., Port Huron
Holcomb, Russell J.....141 S. Main St., Marine City
Hoyt, Chas. N.....804 Huron, Port Huron
James, Freburn L.....1209 Willow St., Port Huron
Johnston, Thomas C.....427 McKinley, Grosse Pte. Farms

Kahn, Oscar B.....Capac
Kesl, Geo. M.....316 Sperry Bldg., Port Huron
Kirban, Harry N.....1209 Willow St., Port Huron
Kirker, Findlay O.....1325 Michigan Ave., Marysville
Koch, Donald A.....310 E. Water St., Port Huron
Lauridsen, James.....1010 Pine Grove Ave., Port Huron
LeGalley, K. B.....Persian Gulf, Awali, Bahrein
Licker, Reuben R.....525 Court St., Port Huron
Ludwig, Claude A.....916 Seventh St., Port Huron
Ludwig, Fredk. E.....916 7th St., Port Huron
Lugg, Robt. M.....619 River St., Port Huron
MacPherson, C. A. (R)....441 Swing Ave., Louisville, Ky.
Martin, Clyde S. (R).....1740 via Palermo, Winter Park, Fla.
Mayhew, Harry E.....721 N. 9th St., St. Clair
McColl, Duncan J. (L).....305 Sperry Bldg., Port Huron
Mohney, Glenn E.....311 Pine St., Port Huron
Morris, Alvin N.....204 Sperry Bldg., Port Huron
Novak, Walter S.....310 E. Water St., Port Huron
Patterson, Dorsey W.....622 Huron Ave., Port Huron
Pollock, Donald A. (A).....5014 Lakeshore, Port Huron
Raftery, Michael.....804 Huron Ave., Port Huron
Rowe, Robt. E.....3360 W. Water St., Port Huron
Sanderson, Jos. L.....515 Pine St., Port Huron
Sands, Geo. E.....310 Water St., Port Huron
Schaefer, Waldo A.....302 Mich. Bank Bldg., Port Huron
Selby, Clarence D.....1916 Military St., Port Huron
Serniak, John A.....104 S. Main St., Yale
Sites, Edgar C.....1209 Tenth St., Port Huron
Tisdel, James H.....310 E. Water St., Port Huron
Tomsu, Glenn F.....310 E. Water St., Port Huron
Townley, Chas. O.....1209 Tenth St., Port Huron
Ulmer, Arthur H., Jr.....1209 Tenth St., Port Huron
Van Rhee, Geo. (L)..323 Peoples Bank Bldg., Port Huron
Walker, Sidney C.....1209 Tenth St., Port Huron
Ware, J. Raleigh.....3107 24th St., Port Huron
Wass, Henry C.....Saint Clair
Wetzel, John O. (R).....700 Intercostal Dr., Ft. Lauderdale, Fla.
Yost, Kenneth W.....1305 Gratiot Ave., Marysville

ST. JOSEPH COUNTY MEDICAL SOCIETY (198)

Berg, Lawrence A.....106 E. Chicago Rd., Sturgis
Bradley, D. E.....428 Burr Oak Rd., Colon
Braham, Wilbur G.....111 S. Monroe, Sturgis
Brothers, Paul L.....104 S. Lakeview, Sturgis
Brunson, Allen E.....206 E. West St., Sturgis
Evans, Robt. H.....111 S. Monroe St., Sturgis
Fiegel, S. Albert.....111 S. Monroe, Sturgis
Fortner, Roscoe J.....137 Portage Ave., Three Rivers
Gillespie, Eleanor M.....103 S. 4th, Sturgis
Jacobowitz, John M.....Lincoln at Millard, Three Rivers
Lamb, Harry.....110 Pleasant Ave., Sturgis
Lepard, Olin L.....104 S. Lakeview, Sturgis
Mackenzie, Aileen L.....Centreville
Miller, Chas. G. (L).....106 W. Chicago St., Sturgis
O'Dell, Charles W.....117 Spring St., Three Rivers
O'Dell, John H., Jr.....117 Spring St., Three Rivers
Olney, Harold E.....Leonidas
Pennington, Harry C.....118 S. Kalamazoo, White Pigeon
Penzotti, Stanley C.....117 Spring St., Three Rivers
Porter, Clark G.....226 East St., Three Rivers
Schimnoski, D. R...Three Rivers Med. Clin., Three Rivers
Shaw, Geo. D.....117 Spring St., Three Rivers
Sheldon, John P.....206 E. West St., Sturgis
Slote, Leal K. (L)....540 S. Washington St., Constantine
Smith, Robt. D.....Colon
Springer, Russell A. (R).....R.R. 2, Sturgis
Weisheit, H. R.....Route 1, Sturgis
Zimont, Chas. R.....Constantine
Zimont, Raymond D.....Constantine

SANILAC COUNTY MEDICAL SOCIETY (202)

Blanchard, Ernest W.....Deckerville
Cripps, James R.....Marlette
Ford, Frances A.....2683 S. Lakeshore Rd., Applegate
Gift, Weldon A.....Marlette
Hart, Robt. K.....Croswell
Jayson, Michael H.....6294 E. Marlette St., Marlette
McCrea, John W.....Marlette
McGunegle, Keate T.....Sandusky
Muir, Neil .....Croswell
Seager, M. Cole.....Brown City
Smith, Duane E.....Brown City
Tweedie, G. Evans.....Sandusky
Tweedie, S. Martin.....Sandusky
Webster, J. C.....Marlette
Winfield, Raymond J.....3014 Main St., Marlette

SHIAWASSEE COUNTY MEDICAL SOCIETY (206)

Arnold, Alfred L., Jr.....812 Bradley St., Owosso
Austin, Eugene S.....635 N. Ball St., Owosso
Bach, Norman F.....113 E. Williams, Owosso
Bjarnesen, Walter.....Durand Medical Clinic, Durand
Brown, Richard C.....113 E. Williams St.. Owosso
Brown, Richard J. (A).....P.O. Box 131, Lakeland
Buzzard, Walter D.....Chesaning
Chipman, Elwood M.....502 W. Williams St., Owosso
Ford, Wm. J. A., Jr.....1310 Shady Lane. Owosso
Forsyth, Henry T.....Chesaning
Graves, James H.....511 W. Main St., Owosso
Grommons, Jack R.....214 N. Saginaw, Durand
Gurden, Elizabeth A. L.....113 E. Williams St., Owosso
Harroun, John E.....105 N. Water St., Owosso
Harroun, R. V.....Matthews Bldg., Owosso
Hoshal, Verne L.....104 W. Clinton, Durand
Lieber, Robt. W.....103 E. Clinton St., Durand
Lutton, Robert.....Matthews Bldg., Owosso
MacGregor, John F.....113 E. Williams St., Owosso
McGeehan, J. S.....Matthews Bldg., Owosso
McKnight, Edwin R.....320 N. Washington St., Owosso
Merz, Walter L.....Rte. 3, Owosso
Moore, Phillip J.....113 E. Williams, Owosso
Morin, Richard .....Durand
Phillips, Rolland.....Matthews Bldg., Owosso
Pochert, Rolland C.....105 N. Water St., Owosso
Richards, Chester J.....213 Mercer, Durand
Sahlmark, Jos. F.....812 Bradley St., Owosso
Sauer, Peter.....113 E. Williams, Owosso
Shepherd, Walter F. (A).....105 N. Water St., Owosso
Trick, O. L.....Durand
Weinkauf, Wm. F.....Corunna
Weston, Claude L.....1226 N. Washington, Owosso

TUSCOLA COUNTY MEDICAL SOCIETY (210)

Anderson, Norma .....Caro
Ballard, James H.....Cass City
Cole, Versa V.....Lock Box A, Caro
Dickerson, Willard W.....Caro State Hosp., Caro
Donahoe, Harold T.....Pleasant Home Hosp., Cass City
Elmendorf, E. N., II.....Vassar
Flett, Richard O.....Millington
Gilbert, Donald E.....Mayville
Gugino, Frank J.....Reese
Howlett, Robt. R.....624 W. Frank St., Caro
Loree, Joseph E.....Caro State Hosp., Caro
Merrill, Elmer H.....147 W. Lincoln St., Caro
Miles, Edward J.....Caro
Nigg, Herbert L.....Caro
Savage, Lloyd L.....147 W. Lincoln, Caro
Swanson, Ewald C.....220 N. Main, Vassar
Von Renner, Otto (L).....837 W. Huron St., Vassar

VAN BUREN COUNTY MEDICAL SOCIETY (214)

Boothby, Carl F.....Hartford
Boothby, Fredk. M.....Lawrence
Boothby, Paul .....Lawrence
Bope, Wm. P. (L).....Decatur
Cooper, Jos. E.....417 W. Monroe, Bangor
Copeland, Evan .....Decatur
Diephuis, Bert.....511 Huron St., South Haven
Dillon, Thos. J.....RFD 3, Paw Paw
Gano, Avison.....417 Monroe St., Bangor
Holm, Leo H.....Gobles
Itzen, John F.....P.O. Box 128, South Haven
Johnson, Harold C. A.....304 Oak St., Paw Paw
Kleber, John A.....311 Center St., South Haven
Lawther, John.....P.O. Box 191, Hartford
Loomis, Frank J.....Paw Paw
McFadden, Roscoe I.....Bloomingdale
Millard, David.....Paw Paw
Morgan, Dale K.....326 Michigan Ave., South Haven
Parks, Arthur E.....Lawton
Stagg, Adelbert L.....9 N. Maple St., Hartford
Stagg, G. Lee.....Box 307, Hartford
Steele, Arthur H,.....Paw Paw
Sundin, Paul W.....Decatur
Ten Houten, Charles.....Paw Paw
Terwilliger, Edwin H.....326 Michigan Ave., South Haven
Urist, Martin J.....R.D. 1, South Haven
Young, Wm. R.....Lawton

WASHTENAW COUNTY MEDICAL SOCIETY (218)

Abell, Joseph M., Jr. (A).....2329 Pinecrest, Ann Arbor
Abramson, Eli C. (A)..3705 Manchester, Toledo 6, Ohio
Alford, Barry H.....690 S. Main St., Plymouth
Allaire, Francis J. (A).....801 Loyola, Ann Arbor
Allen, Arthur W.....5 Harvard Pl., Ann Arbor
Allen, Richard J.....University Hosp., Ann Arbor
Anderson, David G. (A).....627 Westwood, Ann Arbor
Atchison, Russell M.....501 Dunlap, Northville
Badgley, Carl E.....1313 E. Ann St., Ann Arbor
Bailey, Robt. W.....University Hosp., Ann Arbor
Baird, Walter M. (A).....2260 Parkwood, Ann Arbor
Baker, Wm. B. (A)..2122 Tenth Ave. N., Seattle 2, Wash.
Banghart, Norman L.....1950 Manchester Rd., Ann Arbor
Barker, Paul S.....1313 E. Ann St., Ann Arbor
Barlow, R. Craig.....326 N. Ingalls St., Ann Arbor
Barnett, Robert F. (A)..1722 Chandler Ave., Ann Arbor
Barnwell, John B.....R.F.D. 2, Blairstown, N. J.
Barss, Wm. A.....525 W. Cross St., Ypsilanti
Bartholomew, Lee E.....4633 Kresge Bldg., U.M., Ann Arbor
Bartlett, Richard J. (A).....U. Med. Center, Ann Arbor
Bass, Thos. J.....201 S. Hamilton, Ypsilanti
Bassow, Paul H.....St. Joseph Hosp., Ann Arbor
Bauer, Gerhard H.....2015 Manchester Rd., Ann Arbor
Bauer, Jere M.....1313 E. Ann St., Ann Arbor
Beatty, James B. (A).....722 Linda Vista, Ann Arbor
Beckett, Morley B.....207 Fletcher Ave., Ann Arbor
Behrman, Samuel.....1313 E. Ann St., Ann Arbor
Beierwaltes, Wm. H.....1885 Fuller, Ann Arbor
Beljan, John R. (A).....7520th USAF Hosp.. APO 125. New York, N. Y.
Bell, Margaret (L).....15 Geddes Heights, Ann Arbor
Belser, Walter.....2101 Woodside Rd., Ann Arbor
Bender, Leonard F.....1313 E. Ann St., Ann Arbor
Bentley, Fredk. E.....851 S. Main St., Plymouth
Berry, Robert E. L.....Univ. Hosp., Ann Arbor
Bicknell, John N. (A).....1381 Jeffrey, Ypsilanti
Bird, H. Waldo, Jr.,.....1313 E. Ann St., Ann Arbor
Bishop, Ronald C.....1011 Lincoln Ave., Ann Arbor
Block, George E.....Univ. Hosp., Ann Arbor
Bole, Giles G., Jr. (A).....830 Bruce St., Ann Arbor
Boles, Roger (A).....1430 Hatcher Crescent, Ann Arbor
Bolt, Robt. J.....1014 Lincoln St., Ann Arbor
Bosch, Jan K.....302 W. Main St., Northville
Bostian, David W.....304½ S. State St., Ann Arbor
Botch, Edmund S.....115 E. Liberty St., Ann Arbor
Botsford, James H. (M).....39 B. Travis Loop, Holloman AFB, New Mexico
Brandt, Ralph L.....1720 Palomar Dr., Ann Arbor
Brewer, Wilson K.....720 E. Catherine St., Ann Arbor
Brody, Gerald L. (A).....1207 Chapel Ct., Ann Arbor
Brown, Philip N.....Northville State Hosp., Northville
Brown, Wm. E., III.....1517 Granger Ave., Ann Arbor
Bryan, George C.....Box A, Ypsilanti
Bryant, H. C.....334 E. Catherine, Ann Arbor
Bull, Frances E.....University Hosp., Ann Arbor
Burks, Henry L.....725 N. University, Ann Arbor
Bush, Raymond C.....718 Soule Blvd., Ann Arbor
Butler, Chas. W., Jr. (M).....2201 Belvedere Ave. S.W., Atlanta 11, Georgia
Butler, Gerald E. (A).....1120 Saunders Crescent, Ann Arbor
Bywaters, Theo. W., Jr. (A)..2306 Parkwood, Ann Arbor
Campbell, Darrell A.....617 Stratford, Ann Arbor
Campbell, K. G. (A)..1904 Northwood Apts., Ann Arbor
Carr, Edward A., Jr.....Dept. of Pharm., U. of M., Ann Arbor
Carrington, K. W.....University Hosp., Ann Arbor
Carroll, Catherine.....615 Cressfield Lane, Ann Arbor
Carron, Dean P.....309 S. State St., Ann Arbor
Child, Chas. G., III.....University Hosp., Ann Arbor
Clark, Oswald V. (A).....3780 S. State St., Ann Arbor
Clements, Glendon T. (A).....Elg Road, Alma
Clifford, Mary Ellen (A)....University Hosp., Ann Arbor
Clyde, Ensign E.....1246 Sheridan Ave., Plymouth
Coller, Fredk. A. (L).....St. Joseph's Mercy Hosp., Ann Arbor

Conn, Jerome W.....200 Orchard Hill Dr., Ann Arbor
Crook, Clarence E.....2112 Wallingford, Ann Arbor
Cummings, Howard H. (L).....326 N. Ingalls St., Ann Arbor
Currier, Robt. D.....University Hosp., Ann Arbor
Curtis, Arthur C.....1313 E. Ann St., Ann Arbor
Curtis, Edward G.....714 Henry, Apt. 4, Ann Arbor

Davenport, Fred M.....1038 Martin Pl., Ann Arbor
Davey, Winthrop N.....1313 E. Ann St., Ann Arbor
Davis, James H.....2319 Parkwood, Ann Arbor
Deatrick, Richard W.....2940 Hickory Lane, Ann Arbor
DeJong, Russell N.....1313 E. Ann St., Ann Arbor
Den Houter, W. D.....1005 W. Ann Arbor Trail, Plymouth
DeTar, John S.....55 W. Main St., Milan
DeWeese, Marion S.....University Hosp., Ann Arbor
Dillman, Richard S.....529 Fifth St., Ann Arbor
Dingman, Reed O.....1407 Lincoln Ave., Ann Arbor
Dolfin, Wilbur E.....2210 Melrose, Ann Arbor
Domino, Edward F.....1325 Brooklyn, Ann Arbor
Donaldson, Samuel W.....326 N. Ingalls St., Ann Arbor
Doorn, Henry A...83 D Parkway Apts., Haddonfield, N. J.
Douthat, Rudenz T.....213 S. Ann Arbor St., Saline
Draper, Bruce (A).....1706 LeForge Rd., Ypsilanti
Dryer, Clyde K.....3033 Sophia St., Wayne
Dukay, Alexander P.....Ypsilanti State Hosp., Ypsilanti

Earle, Richard H. (M)..49 Pine Hill Apts., Augusta, Ga.
Eberhard, Theodore P.....326 N. Ingalls St., Ann Arbor
Edmunds, Wm. P.....21 S. Prospect, Ypsilanti
Eid, Charles H. (A).....1211 Ferdon Rd., Ann Arbor
Eliot, Johan W.....1027 Miller Ave., Ann Arbor
Elliott, Lyle D.....26 S. Prospect, Ypsilanti
Engelke, Otto K.....313 Washtenaw Co. Bldg., Ann Arbor
Entwistle, F. R. (M).....2918 N. Summit Ave., Milwaukee, Wisc.
Evans, Tommy N.....1001 Belmont Rd., Ann Arbor

Fajans, Stefan S.....248 Devonshire, Ann Arbor
Falk, Elwin C.....14 N. Hamilton, Ypsilanti
Falls, Harold F.....University Hosp., Ann Arbor
Feller, Irving.....2565 Carmel St., Ann Arbor
Fellman, S. L.....1550 Ardmoor Dr., Ann Arbor
Feltner, Wm. R. (A).....2501 Pittsfield Blvd., Ann Arbor
Ferrington, R. A.....519 W. Main St., Milan
Finch, Stuart M.....Child Psychiatric Hosp., Ann Arbor
Findorff. Wm. G. (A).....2059 Garland Ave., Muskegon
Finger, John E. (A).....207 Fletcher, Ann Arbor
Fink, Geo. C.....411 N. Ingalls St., Ann Arbor
Fink, Howard E., Jr. (A)....University Hosp., Ann Arbor
Fish, James B. (A).....2328 Yost Blvd., Ann Arbor
Fisher, Jos. V.....Chelsea
Fliegel, Martin B.....820 Catherine, Ann Arbor
Forsythe, Warren E. (L)....2680 Van Ness, Eugene, Ore.
Forsythe, Wm. R. (A).....University Hosp., Ann Arbor
Fox, Winslow G.....715 N. University, Ann Arbor
Fralick, F. Bruce.....University Hosp., Ann Arbor
Francoeur, Jules A. (A).....1021 E. Huron, Ann Arbor
Francis, Thos., Jr.....U. Mich. Sch. Pub. Hlth., Ann Arbor
Fransway, Robt. L.....Parke Davis & Co., Ann Arbor
French, Arthur B.....1113 W. Liberty, Ann Arbor
French, A. James.....1313 E. Ann St., Ann Arbor
Frohlich, Moses M.....1313 E. Ann St., Ann Arbor
Frost, Lyle W.....309 N. Washington St., Ypsilanti
Fry, Richard M. (A).....University Hosp., Ann Arbor
Frye, Carl H.....301 N. Ingalls St., Ann Arbor
Furstenberg, A. C.....1313 E. Ann St., Ann Arbor

Getting, Vlado A.....1200 Arlington Blvd., Ann Arbor
Gignac, Ralph M.....32320 Michigan, Wayne
Gikas, Paul W. (A).....1335 E. Catherine, Ann Arbor
Ging, Rosalie J.....Veterans Adm. Hosp., Ann Arbor
Goldsmith, Robt. I.....1708 Shadford Rd., Ann Arbor
Gosling, J. R. G.....6 Buckingham Ct., Ann Arbor
Gotz, Alexander.....2201 Medford Rd., Ann Arbor
Gould, Stuart M., Jr.....Mercywood Hosp., Box 65, Ann Arbor
Grabb, Wm. C. (A).....1310 Pomona Rd., Ann Arbor
Gracie, Wm. A., Jr.....University Hosp., Ann Arbor
Graves, Wm. H., III.....3415 Edgewood, Ann Arbor
Grawn, Frank A. (R).....604 Pearl St., Ypsilanti
Grillo, S. Phillip.....265 Main St., Belleville
Gross, H. Phil (A).....901 Rose Ave., Ann Arbor
Guthrie, Frank W., Jr. (A)..3412 Edgewood, Ann Arbor

Haas, Adolf.....Box A, Ypsilanti
Hagerman, Geo. W.....321 N. Ingalls St., Ann Arbor
Haight, Cameron.....University Hosp., Ann Arbor
Hammond, Walter W., Jr.....905 W. Ann Arbor Trail, Plymouth
Handorf, Heinrich H.....Penniman Allen Theatre, Northville
Hankamp, Lamar J.....1412 E. Park Place, Ann Arbor
Hannum, Marvin R.....54 W. Main, Milan
Hanson, Frederick N.....45341 Harmony Lane, Belleville
Harrell, E. R., Jr.....1313 E. Ann St., Ann Arbor
Harris, Bradley M.....27 S. Prospect, Ypsilanti
Harris, Scott T.....27 S. Prospect, Ypsilanti
Harrison, Saul I.....Child Psychiatric Hosp., Ann Arbor
Hartman, James T. (A).....3426 Oakwood, Ann Arbor
Hartwell, S. W., Jr. (A)..919 Edgewood Ave., Ann Arbor
Heinz, Leonard M. (A).....2333 Fernwood, Ann Arbor
Henderson, John W.....University Hosp., Ann Arbor
Hendrix, Robt. C.....1139 Vesper Rd., Ann Arbor
Henry, L. Dell.....706 W. Huron St., Ann Arbor
Heyner, Capt. C. S. (M).....AO 3041794 7373 USAF Hospital, Box 113, APO 10, New York, N. Y.

Hicks, Richard B...Box A, Ypsilanti State Hosp., Ypsilanti
Hildebrandt, H. Mark.....1130 Hill St., Ann Arbor
Himler, Leonard E.....1225 Fairoaks Pkwy., Ann Arbor
Hinerman, Dorin L.....1313 E. Ann St., Ann Arbor
Hing, Ng Harry (A).....St. Joseph's Mercy Hosp., Ann Arbor
Hiraga, Mikio H.....418 High St., Ann Arbor
Hodges, Fred J.....1313 E. Ann St., Ann Arbor
Hodges, Robt. E. (A).....501 Huron View, Ann Arbor
Holmes, Donald J.....1718 Longshore Dr., Ann Arbor
Holmes, Joyce M.....1001 Oakland, Apt. 3, Ann Arbor
Holt, John F.....1313 E. Ann St., Ann Arbor
Holtz, Fred.....326 N. Ingalls, Ann Arbor
Hoobler, Sibley W.....2228 Belmont, Ann Arbor
House, Frederic B.....1240 Crosby Crescent, Ann Arbor
Howard, Stacy C. (R).....2724 N.E. 35th Dr., Ft. Lauderdale, Fla.
Howard, W. Leonard.....Maybury San., Northville
Hubbard, Wm. N., Jr...Univ. of M. Med Sch., Ann Arbor
Huizenga, Philip B. (A).....Box A, Ypsilanti
Hulett, Ralph M.....1444 Glastonbury Rd., Ann Arbor
Hyman, Samuel J.....27342 Michigan Ave., Inkster

Ideson, Robt. S., II.....200 N. Ingalls St., Ann Arbor

Jacob, Jos. S.....202 E. Washington St., Ann Arbor
Jimenez, B. (R).....215A S. Main St., Ann Arbor
Johnson, F. Deborah (A)....1211 Ferdon Rd., Ann Arbor
Johnson, Robt. D.....3432 Woodlea Dr., Ann Arbor
Johnston, Franklin D.....1313 E. Ann St., Ann Arbor
Johnston, James O. (A).....801 Estudielo Ave., San Leandro, Calif.
Johnston, Robert F. (A).....1608 Brooklyn, Ann Arbor
Jones, Edna M.....Maybury Sanatorium, Northville
Jones, Elizabeth.....2121 Highland Rd., Ann Arbor

Kabza, Theodore G.....2222 Parkwood, Ann Arbor
Kahn, Edgar A.....500 Burson Pl., Ann Arbor
Kambly, Arnold H., Jr.....201 S. Main St., Ann Arbor
Keese, Antonia J.....2029 Ferdon Rd., Ann Arbor
Kemp, W. R., Jr.....8124 Main St., Dexter
Kerlikowske, A. C.....1313 E. Ann St., Ann Arbor
Kern, Wheeler H.....P.O. Box 7, Garden City
Kerry, Robert L. (A).....2695 Appleway, Ann Arbor
Kimbrough, W. W. (A).....2004 Helen St., Ann Arbor
Kittleson, Arthur C. (A)....2111 Devonshire, Ann Arbor
Kivi, Louis P.....2015 Manchester Rd., Ann Arbor
Knoll, Leo A. (R).....2002 Scottwood, Ann Arbor
Koepke, Geo. H.....1313 E. Ann St., Ann Arbor
Kopp, Wm. L. (A).....University Hosp., Ann Arbor
Korst, Donald R.....Vets. Adm. Hosp., Ann Arbor
Krausse, Chas. F. (A).....502 Catherine St., Ann Arbor
Krigbaum, Edmund M.....2253 Medford Rd., Ann Arbor

Kroon, Edwin H. (M).....U.S. Army Hosp., Ft. Huachuca, Arizona
Kutcipal, R. A. (A).....Madigan General Hospital Tacoma, Washington

Lammot, T. R., III (M)....Bldg. 1116 F, Ft. Eustis, Va.
Lampe, Isadore.....1313 E. Ann St., Ann Arbor
Langer, L. O., Jr. (A).....5319 Frosty Lane, Madison 5, Wisconsin
Lapides, Jack.....1313 E. Ann St., Ann Arbor
LaVielle, Carroll J.....1697 Arlington Blvd., Ann Arbor
Law, John L.....1706 Cambridge Rd., Ann Arbor
Lease, Glenn O. (A).....207 Fletcher, Ann Arbor
Lewis, Edwin H. (A).....1459 Coler Rd., Ann Arbor
Litton, Ward B. (A).....University Hosp., Ann Arbor
Lockett, Harold J.....1615 Peach, Ann Arbor
Lovell, Robert G.....326 N. Ingalls St., Ann Arbor
Lowrey, Geo. H.....University Hosp., Ann Arbor
Lowry, Claud M.....1707 Shadford Rd., Ann Arbor
Lubeck, Marvin J. (A).....Box 20, Beaumont Hospital, El Paso, Texas

Magee, Kenneth R.....1313 E. Ann St., Ann Arbor
Magielski, John E.....2355 Londonderry Rd., Ann Arbor
Malcolm, Karl D.....311 N. Ingalls St., Ann Arbor
Maley, John E.....5441 Walsh Rd., Whitmore Lake
Marshall, Mark (L).....St. Joseph's Mercy Hosp., Ann Arbor
Martin, Donald W.....19 W. Michigan Ave., Ypsilanti
Mason, Joyce W.....1908 Scottwood, Ann Arbor
Mason, Stephen C., III.....820 E. University, Ann Arbor
Mathews, Kenneth P.....1145 Aberdeen Dr., Ann Arbor
Matthews, W. Frank (M).....9507 Elwood Drive, Tacoma 99, Washington
Mauzy, Merritt C.....2227 Medford Rd., Ann Arbor
McCabe, Brian F.....304 Wilton, Ann Arbor
McCubbrey, David R. (A)..1430 Golden Ave., Ann Arbor
McEachern, Thos. H.....1130 Hill St., Ann Arbor
Mclean, James A.....1313 E. Ann St., Ann Arbor
McWilliams, John R.....201 S. Main St., Ann Arbor
Meyers, Muriel C.....Simpson Mem. Inst., Ann Arbor
Miedler, Leo J.....University Hosp., Ann Arbor
Milford, A. F., Jr.....111 S. Prospect, Ypsilanti
Miller, Ira I.....201 S. Main St., Ann Arbor
Miller, Norman F.....1313 E. Ann St., Ann Arbor
Miller, Seward E.....1630 University Hosp., Ann Arbor
Moore, Kenneth B.....Box A, Ypsilanti
Moore, Robert A.....730 Northside Ave., Ann Arbor
Morley, Geo. W.....University Hosp., Ann Arbor
Morris, Joe D.....1313 E. Ann St., Ann Arbor
Murphy, Thomas C. (A).....2551 Fernwood, Ann Arbor

Nash, Hoke S. (A).....1757 Cram Circle 3, Ann Arbor
Nelson, Roger B.....1313 E. Ann St., Ann Arbor
Nesbit, Reed M.....815 Berkshire, Ann Arbor
Newton, Chas. W., Jr.....115 E. Liberty St., Ann Arbor

Oberman, Harold A. (A)....1830 Stadium Pl., Ann Arbor
O'Connor, Gerald.....1230 Creal Crescent, Ann Arbor
Oliphant, Lizzie W. (L).....790 Barton Shore Dr., Ann Arbor
Ostrander, L. D., Jr.....2321 Pittsfield Blvd., Ann Arbor
O'Sullivan, John.....3436 Edgewood, Ann Arbor

Pahucki, Gena R.....317 S. State St., Ann Arbor
Palmer, Algernon A.....110 E. Middle St., Chelsea
Papo, Michael.....19377 Sibley Road, Chelsea
Parker, Alden R. (M)..1006 Kenyon Dr., Alexandria, Va.
Parnall, C. G. (L).....519 Onondaga St., Ann Arbor
Payne, Beverly C.....527 E. Liberty St., Ann Arbor
Payne, Charles E.....2403 Yorkshire, Ann Arbor
Pearson, Delbert E.....2274 Westaire Ct., Ann Arbor
Person, D. A. (A).....312 Monticello Way, Oak Harbor, Washington
Peterson, Thomas R.....2015 Manchester Rd., Ann Arbor
Petrohelos, Manousos A.....27 S. Prospect St., Ypsilanti
Pierce, Edward C.....1021 Hill St., Ann Arbor
Place, Edwin H.....Detroit Trans. GMC, Ypsilanti
Pletcher, Wm. D. (A).....1439 Univ. Terr., Ann Arbor
Plouff, Louis T. (A).....1907 Anderson Ave., Ann Arbor
Pollack, Hans L.....627 Salem Ave., Dayton 6, Ohio
Pollard, H. Marvin.....2012 Vinewood Blvd., Ann Arbor
Post, James T. (A).....1205 Wright St., Ann Arbor
Potter, Marcia L.....318 W. Cross St., Ypsilanti
Prout, Gordon J.....113 N. Ann Arbor St., Saline
Purfield, Wm. P.....Manchester

Rae, James W., Jr.....1313 E. Ann St., Ann Arbor
Ransom, Henry K.....721 South Forest, Ann Arbor
Raphael, Theophile.....430 Hillspur, Ann Arbor
Rapp, Robert.....1460 Cedar Bend Dr., Ann Arbor
Ratliff, Rigdon K.....326 N. Ingalls St., Ann Arbor
Rea, Thomas H., Jr. (A)....University Hosp., Ann Arbor
Regan, Wm. J., Jr.....326 N. Ingalls, Ann Arbor
Rehner, Robt. C.....1506 Golden, Ann Arbor
Reichert, Rudolph E., Jr.....1046 Baldwin, Ann Arbor
Reinhart, Melvin J. (A).....4386 Copeland St., Apt. 5, San Diego 5, California
Rekshan, Wm. R.....28 Prospect St., Ypsilanti
Renner, Daniel S. (A).....1626 Traver Rd., Ann Arbor
Reus, Wm. F., Jr. (M).....1313 E. Ann St., Ann Arbor
Ritter, Frank N. (A).....930 Duncan St., Ann Arbor
Robins, Hugh B.....715 W. Madison Ave., Ann Arbor
Robinson, Orlo J., Jr.....501 Dunlap, Northville
Robinson, Wm. D.....1313 E. Ann St., Ann Arbor
Rosenzweig, Norman.....University Hosp., Ann Arbor
Ross, C. Howard.....715 N. University Ave., Ann Arbor
Rovner, David R. (A).....1811 Sunrise, Ann Arbor

Saunders, Allen.....2361 E. Stadium Blvd., Ann Arbor
Sayre, Geo. S.....28 S. Prospect, Ypsilanti
Schemm, George W. (A)....University Hosp., Ann Arbor
Schlacht, Geo. F.....Romulus
Schmidt, Donald L. (A).....University Hosp., Ann Arbor
Schneider, Richard C.....1313 E. Ann St., Dept. N.S., Ann Arbor
Schoch, Henry K.....Vets. Adm. Hosp., Ann Arbor
Schultz, E. C., Jr.,.....20172 Sheffield, Detroit 21
Schumacher, Wm. E.....201 S. Main St., Ann Arbor
Scovill, Henry A.....1313 W. Cross St., Ypsilanti
Seevers, Maurice H.....Univ. of M. Med. Sch., Ann Arbor
Segat, Maria Z.....455 Huntington Dr., Ann Arbor
Selzer, Melvin L.....1201 Red Oak Rd., Ann Arbor
Shadoan, James D.....385 Washington St., Chelsea
Sheehan, John C. (A)....1250 Creal Crescent, Ann Arbor
Sheldon, John M.....2121 Toumy Road, Ann Arbor
Shoecraft, Harriet L.....1018 Ferdon Rd., Ann Arbor
Sigler, Louis E., Jr.....1443 Covington Dr., Ann Arbor
Sink, Emory W. (L)..725 N. University Ave., Ann Arbor
Sirola, Olga.....1710 Collegewood, Ypsilanti
Slee, Vergil N.....201 S. Main St., Ann Arbor
Smillie, John W.....2615 Overridge Dr., Ann Arbor
Smith, Edwin M.....1720 Chandler, Ann Arbor
Smith, Eleanor.....521-39 E. Liberty St., Ann Arbor
Smith, M. F. W. (A)..1431 Hatcher Crescent, Ann Arbor
Smith, Russell F.....9569 Main St., Whitmore Lake
Sparling, Irene L. M.....251 E. Main St., Northville
Spears, Clarence W.....302 W. Cross, Ypsilanti
Spencer, J. Clyde (A)....2728 Cranbrook Rd., Ann Arbor
Stevens, David B. (A).....2562 Fernwood, Ann Arbor
Struthers, James N. P.....Box A, State Hosp., Ypsilanti
Sturgis, Cyrus C.....Simpson Mem. Inst., Ann Arbor
Swank, Helen S.....404 Wildwood, Ann Arbor
Sweet, Robt. B.....1313 E. Ann St., Ann Arbor

Tabar, Walter M. (A).....809 E. Kingsley, Apt. 30, Ann Arbor
Tager, Philip (A).....405 Maple Ridge, Ann Arbor
Tannel, Clarence H. (A)....1105 Church St., Ann Arbor
Taylor, Fulton B.....1107 S. Harris, Ypsilanti
Taylor, Wm. B.....1313 E. Ann St., Ann Arbor
Tedford, John H. (A).....2340 Parkwood, Ann Arbor
Teed, R. Wallace.....215 S. Main, Ann Arbor
Thieme, E. Thurston.....St. Joseph's Mercy Hosp., Ann Arbor
Thompson, A. S.....Beyer Memorial Hosp., Ypsilanti
Thompson, George R. (M)....1400 Traver St., Ann Arbor
Tourtellotte, C. D. (A).....University Hosp., Ann Arbor
Tourtellotte, W. W.....University Hosp., Ann Arbor

Towsley, Harry A.....1000 Berkshire, Ann Arbor
Tupper, Chas. J.....2 Medford Court, Ann Arbor

Van Duzen, Verne L.....Box A, Ypsilanti
Van Reesema, F. S.....1531 Hatcher Crescent, Ann Arbor
Vaughen, J. L. (A).....Univer ·y Hosp., Ann Arbor
Venrose, Robt. J.....51ᵭ W. Main St., Milan
Verity, Gordon L. (A).....University Hosp., Ann Arbor
Votaw, Charles L.....629 Revena Place, Ann Arbor
Votaw, May Louise K. (A)..629 Revena Pl., Ann Arbor
Vreede, P. D. (A).....911 Miller, Ann Arbor

Waggoner, R. Walter.....3333 Geddes Rd., Ann Arbor
Waldron, Alexander M.....309 N. Ingalls, Ann Arbor
Wallner, Julius M.....1313 E. Ann St., Ann Arbor
Warren, Leon H.....1220 W. Stadium Blvd., Ann Arbor
Washburne, Charles L. (L).....St. Joseph's Mercy Hosp., Ann Arbor
Watson, Ernest H.....University Med. Center, Ann Arbor
Wear, John B., Jr. (A).....1180 Pomona Rd., Ann Arbor
Weeks, John G. (A).....University Hosp., Ann Arbor
Weisman, Raoul L.....32 N. Washington, Ypsilanti
Weller, John M.....2508 Londonderry Rd., Ann Arbor
Westcott, Geo. W.....1515 S. Congress St., Ypsilanti
Westerberg, Martha R.....1313 E. Ann St., Ann Arbor
Westman, Jack C. (A)....2727 Cranbrook Rd., Ann Arbor
Weston, Arthur S. (A).....515 W. Hoover, Ann Arbor
Westover, Chas. J.....982 W. Ann Arbor Trail, Plymouth
Wetterstroem, Robt. G...46376 W. 7 Mile Rd., Northville
Whale, Edmund H.....207 Fletcher Ave., Ann Arbor
Whitehouse, W. M.....1313 E. Ann St., Ann Arbor
Wicht, Paul J.....1385 W. Michigan, Ypsilanti
Wile, Udo J. (L).....201 S. Main St., Ann Arbor
Wilk, Lawrence H. (A).....1122 Western Dr., Ann Arbor
Williams, Howard R.....1950 Manchester Rd., Ann Arbor
Williamson, Fredk. B.....319 W. Michigan Ave., Ypsilanti
Willis, Park W., III.....University Hosp., Ann Arbor
Wilson, J. Leroy.....1313 E. Ann St., Ann Arbor
Winder, Paul R. (M).....819th Med. Gr. Mac Dill AFB, Tampa, Florida
Winkelman, E. I.....Vets. Adm. Hosp., Ann Arbor
Winkler, James M.....2015 Crestland Dr., Ann Arbor
Wisdom, Inez R. (L)..705 N. University Ave., Ann Arbor
Wolfman, Earl F., Jr.....827 Bruce St., Ann Arbor
Woo, Theresa T.....708 W. Huron St., Apt. 5, Ann Arbor
Woods, James J.....19 N. Washington St., Ypsilanti
Woods, Scott W.....19 N. Washington, Ypsilanti
Worth, Melissa H. C.....R.F.D. 7, 3211 Packard Rd., Ann Arbor
Wright, Harold L.....18741 Haggerty, Northville
Wright, Walter J. (L).....417 W. Cross St., Ypsilanti
Wyman, John S.....2224 Highland Rd., Ann Arbor

Yoder, Orus R.....Ypsilanti State Hosp., Ypsilanti

Zerbi, Victor M.....27 S. Prospect, Ypsilanti
Zlatnik, Philip A. (A).....University Hosp., Ann Arbor

WAYNE COUNTY MEDICAL SOCIETY (222)

Abbott, James A.....310 E. Jefferson, Detroit 31
Aben, Gerald J.....5057 Woodward Ave., Detroit 2
Abraham, Jos. P.....2799 W. Grand Blvd., Detroit 2
Abruzzo, Anthony M.....Lapeer State Tr. School, Lapeer
Adamian, Gerald D.....10 Peterboro St., Detroit 1
Adams, James R.....14741 Michigan Ave., Dearborn
Adams, Vincent B.....15124 Kercheval, Grosse Pointe 30
Adelson, Seymour S.....19207 Schaefer, Detroit 35
Adelson, Sidney L.....16221 Schoolcraft, Detroit 27
Adler, Sidney.....3011 W. Grand Blvd., Detroit 2
Agnew, Geo. H.....3011 W. Grand Blvd., Detroit 2
Agnone, Eugene J.....1420 St. Antoine St., Detroit 26
Agree, A. Alan (A).....2701 Holbrook Ave., Detroit 12
Aiuto, Jas. J.....660 Cadieux Rd., Detroit
Akroyd, Cecil.....16551 W. Warren, Detroit 28
Alban, Emil J., Jr.....7940 Allen Rd., Allen Park
Albrecht, Albert J.....11624 Wisconsin Ave., Detroit 4
Alexander, Allen.....18881 Hilton, Southfield
Alexander, Eugene J.....24140 Wilson, Dearborn
Alexander, G. D. (M).....19441 Robson, Detroit 35
Alexander, L. C.....1204 Kales Bldg., Detroit 26
Alford, Elvis S.....105 Main St., Belleville
Allen, John V.....1336 Southfield Rd., Lincoln Park
Allen, Wm. H.....10 Peterboro, Detroit 1
Alles, Russell W...17555 James Couzens Hwy., Detroit 35
Allison, Herbert C.....383 Fisher Rd., Detroit
Alpern, E. Bryce.....2840 W. 7 Mile Rd., Detroit 21
Alpiner, Sam.....2850 E. 7 Mile Rd., Detroit 34
Altman, Raphael.....5057 Woodward Ave., Detroit 2
Altshuler, Ira M.....2211 Woodward Ave., Detroit 1
Alvarez, Herman, Jr.....Henry Ford Hosp., Detroit 2
Amos, Thos. G. (L).....2842 W. Grand Blvd., Detroit 2
Anderson, Beverly L.....1064 Iroquois, Detroit 14
Anderson, Chas. P.....16733 Plainview Rd., Detroit 19
Anderson, James O.....7715 Middlepointe Ave., Dearborn
Anderson, Walter L.....1553 Woodward Ave., Detroit 26
Andries, Geo. H.....3001 W. Grand Blvd., Detroit 2
Andries, Raymond C. (L).....964 Lakepointe St., Grosse Pointe 30
Angel, John J.....34549 Main St., Wayne
Annessa, Domenico M.....3536 Burns Ave., Detroit 14
Ansley, Marv K.....1 Lafayette Plaisance, Detroit 7
Appelman, Howard B...1553 Woodward Ave., Detroit 26
Archambault, Henry A. (A).....5057 Woodward Ave., Detroit 2
Archambault, Rene F.....35550 Michigan Ave., Wayne
Arehart, Burke W.....11540 Morang Dr., Detroit 24
Arent, John G.....12600 Grand River Ave., Detroit 4
Arminski, Thos. C.....1066 Fisher Bldg., Detroit 2
Armstrong, Arthur G.....3001 W. Grand Blvd., Detroit 2
Armstrong, Mac J.....15125 Grand River, Detroit 27
Arnkoff, Morris.....1030 Fisher Bldg., Detroit 2
Arnold, Effie E. (L).....16520 Oakfield, Detroit 35
Arnold, Wm. J., Jr.....8203 12th St., Detroit 6
Arrington, Robyn J.....7811 Oakland Ave., Detroit 11
Ascher, Meyer S.....5057 Woodward Ave., Detroit 2
Ashley, Lowell B.....18050 Fairway Dr., Detroit 21
Ashe, Stilson R. (L).....8031 W. Vernor Hwy., Detroit 9
Asselin, Dean R.....1208 David Whitney Bldg., Detroit 26
Asselin, Regis F.....20480 Eastwood Dr., Detroit 36
Atler, Lawrence R.....681 W. Forest, Detroit 1
Auble, Max E.....2501 W. Grand Blvd., Detroit 8
August, Harry E.....1242 Maccabees Bldg., Detroit 2
Austin, Shirley.....5224 St. Antoine St., Detroit 2
Ausum, John D. (A).....6420 Hartwell, Dearborn
Avrin, Ira.....10821 Puritan, Detroit 38
Axelrod, Arnold R.....15001 W. 8 Mile Rd., Detroit 35
Axelrod, Mildred A.....13725 8 Mile Rd., Detroit 35
Axelrod, Robt. G.....24101 Seneca, Oak Park 37

Babcock, Lloyd K.....16420 Schoolcraft Ave., Detroit 27
Babcock, Myra E.....7 Poplar Park, Pleasant Ridge
Babcock, Warren W.....868 Fisher Bldg., Detroit 2
Bach, Walter F.....5419 Livernois Ave., Detroit 10
Bacher, Burton J.....1015 Kales Bldg., Detroit 26
Bachman, Morris E.....3001 W. Grand Blvd., Detroit 2
Bacon, Vinton A.....18400 Livernois, Detroit 21
Bader, Benj. H.....2654 W. Grand Blvd., Detroit 8
Baeff, Michael A. (R).....15435 Stahelin Ave., Detroit 23
Baer, Geo. J.....1553 Woodward Ave., Detroit 26
Baer, Marga.....16321 Mack Ave., Detroit 24
Baer, Walter.....16321 Mack Ave., Detroit 24
Bagley, Harry E.....7541 Oakman Blvd., Dearborn
Bahra, Robt. J.....14300 W. McNichols, Detroit 35
Bailey, Donald A. (R)....3300 Woodstock Dr., Detroit 21
Bailey, Louis J.....Northland Center, Southfield
Baima, Margaret A.....5057 Woodward Ave., Detroit 2
Baker, Clarence (L).....19182 Patton Ave., Detroit 19
Bakst, Joseph A.....10 W. Warren, Detroit 1

Balaga, Frank T.....9701 Joseph Campau Ave., Hamtramck 12
Balberor, Harry.....275 W. Grand Blvd., Detroit 16
Balcerski, Matthew A.....10 Peterboro St., Detroit 1
Ballard, Donald R.....22231 W. Outer Dr., Dearborn
Balow, Ross M.....18700 Meyers Rd., Detroit 35
Balser, Chas. W. (L).....13931 Gratiot, Detroit 5
Barak, Lewis R.....7448 W. 7 Mile Rd., Detroit 21
Baran, Alphonse W.....15841 W. Warren St., Detroit 28
Barbaglia, Louis C.....16378 Harper, Detroit 24
Barber, Radivoj R.....864 S. Main St., Plymouth
Bardenstein, M. B...16650 Jas. Couzens Hwy., Detroit 21
Barefield, Alwin S.....8629 W. 8 Mile Rd., Detroit 21
Barenholtz, Benj.....1138 Maccabees Bldg., Detroit 2
Barker, David H.....7220 Gratiot Ave., Detroit 13
Barland, Oscar.....5131 Milford, Detroit 10
Barnes, Van D.....11040 Ingram, Livonia
Barnett, Morton.....1527 David Stott Bldg., Detroit 26
Barnett, Saul E.....744 Lothrop St., Detroit 2
Barnett, Louis L.....10 Witherell St., Detroit 26
Barone, C. Gerald.....15231 W. 7 Mile Rd., Detroit 35
Barrett, C. D., Jr.....334 Bates, Detroit 26
Barrett, Raymond J.....18280 Fairfield, Detroit 21
Barrett, Wyman D.....1553 Woodward Ave., Detroit 26
Barron, James.....2535 Amberly Rd., Birmingham
Barron, Wm. H.....14938 Livernois St., Detroit 38
Barsky, David.....100 Oak St., Wyandotte
Barton, Jos. R.....7503 W. Warren Ave., Detroit 10
Batchelor, Melvin T.....18060 Conant, Detroit 34
Bates, Gaylord S.....861 Monroe Blvd., Dearborn
Battle, John M.....6904 Charlesworth, Garden City
Bauer, A. Robt.....19268 Grand River Ave., Detroit 23
Bauer, Benedict J.....16451 Schoolcraft, Detroit 27
Bauer, Lester E.....4 Woodside Pk., Pleasant Ridge
Bauer, Raymond B.....1326 St. Antoine St., Detroit 26
Baugh, Richard H.....24216 Michigan Ave., Dearborn
Baumer, Moe.....10 Peterboro, Detroit 1
Baumgarten, Elden C.....8045 E. Jefferson Ave., Detroit 14
Baumgarten, Thos. W.....8045 E. Jefferson Ave., Detroit 14
Bayles, John G. (A).....3416 Michigan Ave., Detroit 16
Bazil, Gilbert M.....18254 Livernois, Detroit 21
Beach, Watson.....20815 Mack Avenue, Detroit 36
Beam, A. Duane.....20160 Mack Ave., Grosse Pte. Woods
Beamer, Geo. D.....14853 Michigan Ave., Dearborn
Beard, James E.....906 N. Highland, Dearborn
Beck, Stanley M., Jr.....13118 Fort St., Wyandotte
Becker, Abraham.....10 Witherell St., Detroit 26
Becker, Jos. W.....1553 Woodward Ave., Detroit 26
Beckett, Peter G. S.....951 E. Lafayette St., Detroit 7
Beckett, Victoria L.....1420 Anita, Grosse Pte. Woods
Becklein, Clarence L.....14351 E. Warren Ave., Detroit 15
Bedell, Archie A.....15545 Mack Ave., Detroit 24
Bedwell, Wm. L.....1249 Washington Blvd., Detroit 26
Beebe, Willard E.....13365 Michigan Ave., Dearborn
Beeuwkes, L. E.....13014 Mackenzie Ave., Detroit 28
Behan, Robt. C.....500 Griswold St., Detroit 26
Beitman, Max R.....510 Kales Bldg., Detroit 26
Belanger, W. Geo.....1041 Harvard, Detroit 30
Belden, Darwin F.....13339 Woodrow Wilson, Detroit 38
Belisle, John A.....Wayne Co. Hosp., Eloise
Bell, J. Kenner.....660 Woodward Ave., Detroit 26
Bende, Sandor F.....15863 Garfield, Allen Park
Beninson, Joseph.....Henry Ford Hospital, Detroit 2
Bennett, Germany E.....5144 Hastings St., Detroit 11
Bennett, Harry B.....5057 Woodward Ave., Detroit 2
Bennett, H. Stanley.....29767 E. River Rd., Grosse Ile
Bennett, Sanford A.....15301 W. Nine Mile Rd. Oak Park 37
Bennett, Zina B.....10319 Lanark, Detroit 24
Bennish, E. Leo.....14438 W. Six Mile Rd., Detroit
Benson, Clifford D.....1553 Woodward Ave., Detroit 26
Benson, Davis A.....3706 Sturtevant Ave., Detroit 6
Benson, Paul J.....2355 Fort St., Lincoln Park
Benson, Virginia M.....16238 Snowden Ave., Detroit 35
Berge, Clarence A. (L).....878 Lakewood, Detroit 15
Berger, Edwin L.....7301 Schaefer Rd., Dearborn
Bergman, Murray S.....4400 Livernois, Detroit 10
Bergman, Theodore I.....7330 W. 7 Mile Rd., Detroit 21
Berk, J. Edward.....Sinai Hospital, Detroit 35
Berke, Sydney S.....3333 E. Jefferson, Detroit 7
Berlien, Ivan C.....Jackson Mem. Hosp., Miami 36, Fla.
Berlin, Allen B.....19467 Livernois, Detroit 21
Berman, Lawrence.....1401 Rivard St., Detroit 7
Berman, Robt. H.....2111 Woodward, Detroit 1
Berman, Sidney L.....60 W. Hancock, Detroit 1
Bernard, Walter G.....910 Chalmer, Detroit 15
Bernbaum, Bernard.....17320 Livernois, Detroit 21
Bernstein, Saml. S.....18200 Wyoming, Detroit 21
Berridge, William L.....Chevrolet Motor Co., Livonia
Berry, Jos. E.....19242 W. 7 Mile Rd., Detroit 19
Besancon, John H.....1510 Broderick Tower, Detroit 26
Best, Thos. H. E. (L).....9221 E. Jefferson Ave., Detroit 14
Betanzos, G.....25701 Joy Rd., Dearborn
Bethea, Hardee.....18150 Mack, Detroit 24
Beyer, Hans A.....16863 Montevista, Detroit 21
Bialik, Michael H.....14853 Michigan Ave., Dearborn
Bicknell, Frank B.....938 David Whitney Bldg., Detroit 26
Bielawski, John G.....8124 E. Morrow Circle, Detroit 4
Bigman, Oscar.....1151 Taylor Ave., Detroit 2
Bihl, John H.....Northville St. Hosp., Northville
Billingslea, Thos. H.....2175 Willis Ave. E., Detroit 7
Biluk, Frank J.....13424 Gratiot, Detroit 5
Bing, Richard J.....1401 Rivard St., Detroit 7
Birch, John R.....5057 Woodward Ave., Detroit 2
Birk, Robert E.....Henry Ford Hospital, Detroit 2
Birkam, Fred F.....7301 Shaefer Rd., Dearborn
Birkelo, Carl C. (R).....1630 Chestnut, Winter Park, Fla.
Birkelo, Carl H.....16859 Rosemont, Detroit 19
Birkhill, F. Ross.....31 Shady Hollow Dr., Dearborn
Birmingham, John R.....14216 W. McNichols Rd., Detroit 35
Birndorf, Leonard.....18317 John R. St., Detroit 3
Bittker, Isadore I.....3321 Rochester Rd., Royal Oak
Bittrich, Norbert M.....2500 W. Grand Blvd., Detroit 8
Black, Perry S. (L).....19431 Van Dyke Ave., Detroit 34
Black, Robert W.....641 David Whitney Bldg., Detroit 26
Blain, Alexander III.....2201 E. Jefferson, Detroit 7
Blain, Donald G.....2201 E. Jefferson, Detroit 7
Blain, James H., Jr.....119 Kercheval Rd., Detroit 36
Blaine, Max.....5057 Woodward Ave., Detroit 2
Blair, Wm. F.....81 E. Kirby St., Detroit 2
Blanchard, Russell S.....261 Brady, Detroit 1
Bledsoe, Ovid L.....1819 Seward, Detroit 6
Bleier, Alfred.....13015 E. Warren Ave., Detroit 15
Bleier, Jos.....7504 Dexter Blvd., Detroit 6
Bloch, Abraham.....2935 E. Milwaukee Ave., Detroit 11
Block, Duane L.....3001 Miller Rd., Dearborn
Block, Melvin A.....2799 W. Grand Blvd., Detroit 2
Blodgett, James B.....76 W. Adams St., Detroit 26
Blodgett, Wm. H.....74 W. Adams Ave., Detroit 26
Blodgett, Wm. E. (L).....76 W. Adams Ave., Detroit 26
Bloom, Albert.....6484 Chene St., Detroit 11
Bloom, Arthur R.....19140 Gloucester, Detroit 3
Bloor, Robt. J.....Henry Ford Hosp., Detroit 2
Blumer, Abraham.....25321 5 Mile Rd., Detroit 39
Blumenthal, Franz L.....3011 W. Grand Blvd., Detroit 2
Boccaccio, John L.....11532 Morang, Detroit 24
Boccia, James J.....15761 E. Warren, Detroit 24
Boddie, Arthur W.....2737 Chene St., Detroit 7
Bogucki, Chester J.....11455 E. McNichols Rd., Detroit 34
Bogue, Robt. E.....15800 W. McNichols Rd., Detroit 35
Bogusz, Ladislaus (R).....29215 Maranya Rd., Homestead, Fla.
Bohn, Z. Stephen.....327 Professional Bldg., Detroit 1
Bohne, A. Waite.....Henry Ford Hosp., Detroit 2
Boland, John R. (R).....Box 50, Grand Marais
Bolstad, Donald S.....Henry Ford Hosp., Detroit 2
Bolter, Sidney.....18916 Woodward, Detroit 3
Bolton, Russell P., Jr.....19566 Grand River Ave., Detroit 23
Bookstein, Abraham M.....1475 Colton Ave., Detroit 3
Boone, Geo. F.....22101 Moross Rd., Detroit 36
Borchak, Robert G. (A).....24584 Mobray, East Detroit

Borden, Igor I.....987 E. Jefferson Ave., Detroit 7
Borin, Maurice C.....18115 Fairfield St., Detroit 21
Bornstein, Sidney.....2033 Puritan, Detroit 3
Bott, Edmund T.....1629 Ford, Wyandotte
Botvinick, Isadore.....13701 W. 7 Mile Rd., Detroit 35
Boutrous, Thos. A.....15801 W. McNichols, Detroit 35
Bovill, Edwin G.....17555 James Couzens Hwy., Detroit 35
Bower, Donald W.....719 Liberty, Lincoln Park
Bower, Franklin T.....70 Kensington, Pleasant Ridge
Bowers, Leo J.....11200 E. McNichols, Detroit 34
Bownes, Eugene A.....18520 Grand River, Detroit 23
Boyajian, Albert.....27459 5 Mile Rd., Livonia
Boyd, John H.....2615 W. Jefferson, Trenton
Boyle, Albert J.....Wayne St. University, Detroit 2
Boyle, Robert E.....Fisher Body Div., GMC, Livonia
Bracken, Andrew H.....13102 W. Warren Ave., Dearborn
Braden, Robt. G.....25060 E. River Place, Grosse Isle
Bradfield, Horace F.....3008 E. Grand Blvd., Detroit 2
Bradley, Geo. T.....1553 Woodward Ave., Detroit 26
Brady, Herbert A.....10593 W. Jefferson, Detroit 18
Braley, Wm. N. (L).....12897 Woodward, Detroit 3
Bramigk, Fritz W. (L).....509-511 Prof. Bldg., Detroit 1
Brand, Benj.....4500 Wabash Ave., Detroit 8
Braun, Lionel.....18644 Muirland Ave., Detroit 21
Braun, Robert A.....18610 Hartwell Ave., Detroit
Braverman, Morris M.....1221 Maccabees Bldg., Detroit 2
Bredau, Frank N., Jr.....21714 Fenkell, Detroit 23
Breiner, Sander J.....14300 W. McNichols Rd., Detroit 21
Brekke, Viola G.....369 Glendale St., Highland Park 3
Bremer, John P.....17818 E. Warren, Detroit 24
Bremer, Wm. M.....15641 E. Warren, Detroit 24
Breneman, Gerald M.....16926 13 Mile Rd., Birmingham
Brennan, Michael J.....1176 Grayton, Detroit 30
Brent, Morris S.....1330 Strathcona Dr., Detroit 3
Brey, Norman W.....5057 Woodward Ave., Detroit 2
Briegel, Walter A. (R).....1012 Henrietta, Birmingham
Briggs, Wm. J.....1202 Maccabees Bldg., Detroit 2
Bringard, Elmer L.....18110 Fairfield Ave., Detroit 21
Briski, Jacob E. (A)....21231 Sunnydale, St. Clair Shores
Brisson, Jos. C.....9191 Whittier St., Detroit 24
Bristol, Wm. R.....189 Claverly, Detroit 36
Broadman, Sylvan A.....25705 Middlebelt, Farmington
Broderson, Harvey S. (R).....10720 W. Jefferson, River Rouge 18
Bromme, Wm.....10 Peterboro St., Detroit 1
Bronson, Wm. W.....22128 Grand River, Detroit 19
Brooks, Chas. W., II.....2033 E. Davison St., Detroit 12
Brooks, Eugene M.....1103 Kales Bldg., Detroit 26
Brooks, Nathan.....904 Maccabees Bldg., Detroit
Brosius, Chas. O.....15800 6 Mile Road, Detroit 35
Brosius, Wm. L.....16150 Sorrento, Detroit 35
Brough, Glen A.....1553 Woodward Ave., Detroit 26
Brown, Andrew G.....18230 Grand River Ave., Detroit 23
Brown, Audrey O.....5057 Woodward Ave., Detroit 2
Brown, Carlton F.....16552 Westmoreland Rd., Detroit 19
Brown, Chas. H.....2387 Fort St., Wyandotte
Brown, Eli M.....13123 LaSalle, Huntington Woods
Brown, Frances.....1940 Lincolnshire, Detroit 3
Brown, Gordon T.....13000 Hayes Ave., Detroit 5
Brown, Henry S.....18101 Jas Couzens Hwy., Detroit 35
Brown, John R.....702 Maccabees Bldg., Detroit 2
Brown, Robt. A.....3529 W. Jefferson, Detroit 29
Brown, Saml. M.....18268 Sorrento Ave., Detroit 35
Brown, Saul.....6767 W. Outer Drive, Detroit 35
Brown, Stanley H.....8544 W. McNichols Rd., Detroit 21
Brown, Thos. A.....5430 W. Warren Ave., Detroit 10
Brownell, H. H.....10435 Groh, Grosse Isle
Brownell, Paul G.....18916 Woodward Ave., Detroit 3
Bruder, Robt. C.....21721 Hickery Wood Dr., Dearborn Township
Bruer, Edgar S.....12170 Fort St., Wyandotte
Bruer, Edwin L.....12170 Fort St., Wyandotte
Brundage, Robt. D.....1914 Edgewood, Dearborn
Brunke, Bruno B. (L).....7765 Mack Ave., Detroit 14
Brush, Brock E.....2799 W. Grand Blvd., Detroit 2
Bruton, Martin F.....341 Massachusetts, Detroit 31
Bryan, Donald I.....13700 Woodward Ave., Highland Park 3
Bryan, John B.....2799 W. Grand Blvd., Detroit 2
Bryce, John D.....5400 Trumbull Ave., Detroit 8
Budd, Richard D.....15420 Farmington Road, Livonia
Budson, Danl.....10330 W. 7 Mile Rd., Detroit 21
Buell, John H.....188 Provencal Rd., Detroit 36
Buerki, Robin C.....Henry Ford Hosp., Detroit 2
Buller, Harry L. (A).....4120 Fenkell Ave., Detroit 38
Burge, Robert H.....28343 Joy Rd., Dearborn
Burke, Ralph M.....580 University Pl., Grosse Pointe 30
Burnham, David C.....13700 Woodward Ave., Highland Park
Burns, Robert E.....Henry Ford Hospital, Detroit 2
Burns, Robt. T.....11110 Morang Rd., Detroit 24
Burnside, Howard B.....20403 Stratford, Detroit 21
Burnstine, Julius Y. (L).....45 Owen Ave., Detroit 2
Burnstine, Perry P.....2329 W. Grand Blvd., Detroit 8
Burr, Geo. C. (L).....2016 W. Boston Blvd., Detroit 6
Burr, H. Leonard.....168 Fisher Rd., Detroit 30
Burroughs, Roswell G. ....31624 Auburn Dr., Birmingham
Burrows, Howard A.....10423 W. Warren Ave., Dearborn
Burstein, Harry S.....2950 W. Grand Blvd., Detroit 2
Burstein, I. Marvin.....2950 W. Grand Blvd., Detroit 2
Burstein, Morris M.....2950 W. Grand Blvd., Detroit 2
Burton, DeWitt T.....54 Arden Park, Detroit 2
Burton, Irving F.....26912 York Rd., Huntington Woods
Bush, Glendon J.....18901 W. McNichols, Detroit 19
Butler, Harry J. (L)....33 Waverly Ave., Highland Park
Butler, John D.....2173 W. Grand Blvd., Detroit 8
Butler, J. Payne.....3403 W. Warren St., Detroit 8
Butler, Lawrence H.....14521 East 7 Mile Rd., Detroit 5
Butler, Richard G.....2021 Monroe, Dearborn
Butler, Volney N.....28 W. Adams Ave., Detroit 26
Buttrum, Edward J.....14755 Fenkell St., Detroit 27
Byers, Dudley W. (A).....8934 Oakland, Detroit 11

Cadieux, Henry W. (L)....103 E. Grand Blvd., Detroit 7
Cahalan, Jos. L.....1553 Woodward Ave., Detroit 26
Cain, Waldo L.....8033 12th St., Detroit 6
Caldwell, George L.....12017 Jos. Campau, Detroit 12
Caldwell, John R.....2799 W. Grand Blvd., Detroit 2
Calkins, H. Neill (A).....15302 Gilchrist, Detroit 27
Callaghan, Thos. T.....312 Professional Bldg., Detroit 1
Cameron, Arthur H.....2853 Biddle, Wyandotte
Cameron, Duncan A.....2021 Monroe, Dearborn
Campbell, C. Gordon.....35084 Chestnut, Wayne
Campbell, Duncan (L).....9203 Grand River Ave., Detroit 4
Campbell, Duncan A. (L).....1553 Woodward Ave., Detroit 26
Campbell, Everett W.....7901 W. Jefferson, Detroit 17
Campbell, Malcolm D.....3339 W. Grand Ave., Detroit 38
Campbell, Mary B. (L).....10454 Kingston, Huntington Woods
Campbell, Robt. E.....8445 E. Jefferson Ave., Detroit 14
Campbell, Ruth B.....1536 David Whitney, Detroit 26
Campbell, Thelma W.....2355 Monroe Blvd., Dearborn
Candler, Clarence L.....20040 Mack Ave., Detroit 36
Canter, Allie L.....13700 Woodward, Highland Park 3
Canter, Gayle E.....26 Waverly, Detroit 3
Cantor, Herbert C.....5057 Woodward Ave., Detroit 2
Cantor, Meyer O.....4850 Charing Cross Rd., Birmingham
Cantow, Lawrence A.....3011 W. Grand Blvd., Detroit 2
Capano, Oreste A.....16901 James Couzens, Detroit 35
Capellari, Elmer E.....Box 3059, Detroit
Caputo, Jos. M.....22575 Nona, Dearborn
Caputo, Nancy T.....17712 Mack Ave., Grosse Pte. 30
Capuzzi, Eugene T.....24644 Gleneyrie Dr., Birmingham
Caraway, James E.....35804 John R St., Wayne
Carbone, Louis.....14711 Gratiot Ave., Detroit 5
Carlisle, John C.....1221 Lincoln, Lincoln Park
Carlisle, Jos. D.....1104 Maccabees Bldg., Detroit 2
Carlson, Harold W.....18070 Wildemere Ave., Detroit 21
Carmichael, Edward K.....7815 E. Jefferson Ave., Detroit 14
Carnes, Harry E.....Parke Davis Co., Detroit 32

Carp, Jos.....8717 Van Dyke, Detroit 13
Carpenter, C. J.....P.O. Box 390, Wayne
Carpenter, Glenn B. (L).....2751 W. 7 Mile Rd., Detroit 21
Carpenter, Wm. S.....18255 W. McNichols Rd., Detroit 19
Carr, James G.....14111 Korte, Detroit 15
Carrick, Lee.....18050 Mack Ave., Grosse Pte.
Carroll, Elmer H.....9920 Stoepel Ave., Detroit 4
Carroll, Jerome G.....19723 Dale, Detroit 19
Carroll, Lona B. (L).....1066 Maccabees Bldg., Detroit 2
Carson, Herman J.....7745 Puritan Ave., Detroit 38
Carstens, Henry R. (L).....6896 N. Clunbury Rd., Birmingham
Carter, John M.....18900 Fairway Dr., Detroit 21
Carter, Leland F.....750 Middelsex, Detroit 30
Cash, Ralph.....19316 Jms. Czns. Hwy., Detroit 35
Cassel, Harry E.....6525 Park, Allen Park
Castle, Maurice E.....18980 Wyoming, Detroit 21
Catherwood, Albert E. (L)....1337 David Whitney Bldg., Detroit 26
Caton, Dorothy F. (A).....19182 Mendota, Detroit 21
Caughey, Andrew F., Jr.....16889 James Couzens Hwy., Detroit 35
Caughey, Edgar H.....11301 Whittier St., Detroit 24
Caumartin, Fred E.....17184 Wildemere, Detroit 21
Cellar, Frank A., Jr.....5057 Woodward Ave., Detroit 2
Ceravolo, Albert J.....468 Cadieux Rd., Detroit 30
Cetnar, Eugene J.....4322 Bishop, Detroit 24
Chajes, Richard.....16603 Plymouth Road, Detroit 27
Chalat, Ned I.....1553 Woodward Ave., Detroit 26
Chall, Henry G.....2941 W. McNichols Rd., Detroit 21
Chapin, Sidney E.....125 N. Military, Dearborn 7
Chapman, Aaron L. (L).....2550 Atkinson, Detroit 6
Chapman, Paul T.....1151 Taylor Ave., Detroit 2
Chapman, Roland H.....7600 John R St., Detroit 2
Chapman, Thomas H.....18901 Grand River Ave., Detroit 23
Chapnick, Henry A.....19322 Wyoming, Detroit 21
Chapper, Barbara M.....861 Monroe, Dearborn
Charleston, R. A.....17256 Pierson, Detroit 19
Charnas, Sidney.....5057 Woodward Ave., Detroit 2
Chase, Clyde H. (R).....8868 Hendrick Dr., Brighton
Chason, Jacob L. (A).....1401 Rivard St., Detroit 7
Chavis, Wm. M.....15866 Twelfth St., Detroit 21
Check, Frank E.....76 W. Adams Ave., Detroit 26
Chen, Allen S. Y.....Wayne Co. Gen. Hosp., Eloise
Chen, Calvin H.....State Hosp., Northville
Chesluk, Herman M.....17191 James Couzens Hwy., Detroit 35
Chester, Alice.....25085 Coolidge Hwy., Oak Park
Chester, Wm. P.....2916 Seminole, Detroit 14
Childs, Geo. M.....2842 W. Grand Blvd., Detroit 2
Chipman, Willard A.....14300 W. McNichols Rd., Detroit 35
Chostner, Grover C. (R).....841 Eden Isle Blvd., St. Petersburg, Fla.
Chown, Marion C.....2853 Biddle St., Wyandotte
Christensen, R. C.....19635 Mack, Grosse Pte. Woods
Christopher, James G.....4777 E. Outer Dr., Detroit 34
Chrouch, Laurence A. (L).....18456 Grand River, Detroit 23
Church, Aloysius S.....19570 Bretton Dr., Detroit 23
Cioffari, Mario S.....19363 Jas Couzens Hwy., Detroit 35
Ciprian, Jos. E.....1775 E. Grand Blvd., Detroit 11
Clapper, Muir.....1401 Rivard St., Detroit 7
Clark, Arthur M.....318 Beechmont, Dearborn
Clark, Chas. J.....136 S. Highland, Dearborn
Clark, Clarence M.....2605 Holbrook Ave., Detroit 12
Clark, Harold E. (L).....17198 Oak Dr., Detroit 21
Clark, Harry G. (R).....509 2nd Ave., Gallipolis, Ohio
Clark, Wm. P.....1808 Baldwin, Ann Arbor
Clarke, Chas. N.....2501 W. Grand Blvd., Detroit 8
Clarke, Norman E.....2501 W. Grand Blvd., Detroit 8
Clarke, Norman E., Jr.....2501 W. Grand Blvd., Detroit 8
Clarke, Robt. B.....76 W. Adams Ave., Detroit 26
Clermont, Volna.....4287 Seebaldt, Detroit 4
Clifford, Geo. O., Jr.....Wayne Univ. Coll. of Med., Detroit 7
Clifford, John E.....2108 Dav. Broad. Tower, Detroit 26
Clifford, Thos. P. (L).....1750 Dav. Whitney Bldg., Detroit 26
Climie, Andrew R. W.....Harper Hospital, Detroit 1
Cline, Richard S.....15101 Plymouth Rd., Detroit 27
Clippert, Julius C. (L).....Hotel Fort Shelby, Detroit
Coan, Glenn L.....2336 Van Alstyne Blvd., Wyandotte
Coates, E. Osborne, Jr.....253 Hillcrest Rd., Detroit 36
Cobane, John H.....10 Peterboro Ave., Detroit 1
Cochrane, Edgar G.....503 Med. Arts Bldg., Detroit 3
Cocorelis, S. G.....35166 Michigan, Wayne
Cohen, Herbert H.....12700 W. 7 Mile Rd., Detroit 35
Cohen, Melvin F.....20242 Braile, Detroit 19
Cohn, Danl. E.....409 Fox Bldg., Detroit 1
Cohoe, Don A. (L).....18916 Woodward Ave., Detroit 3
Cole, James E.....344 Glendale Ave., Detroit 3
Cole, Wyman C. C.....1077 Fisher Bldg., Detroit 2
Cole, Wyman C. C., Jr.....3011 W. Grand Blvd., Detroit 2
Coleman, Margarete W. (L).....58 W. Adams Ave., Detroit 26
Coleman, Peter F.....31410 Joy Rd., Livonia
Coleman, Wm. G.....20526 Grand River Ave., Detroit 19
Collings, M. Raymond (A).....9201 W. Outer Drive, Detroit 19
Collins, James E.....13103 W. Chicago Blvd., Detroit 28
Colvin, Leslie T.....3011 W. Grand Blvd., Detroit 2
Colyer, Raymond G.....284 Pilgrim, Birmingham
Combs, Julius V.....13339 Woodrow Wilson, Detroit 38
Comly, Hunter H.....5475 Woodward, Detroit 2
Compton, Wm. A., Jr.....36825 Bibbins, Romulus
Comstock, Lawrence A.....2299 West Road, Trenton
Conklin, Emma J.....Wayne Co. Gen. Hosp., Eloise
Conley, Lowry C. M. (L).....99 Tuxedo Ave., Detroit 3
Connelly, Richard C.....1401 David Whitney Bldg., Detroit
Connolly, Frank O.....13815 Puritan Ave., Detroit 27
Connolly, Paul J.....16778 Westmoreland Rd., Detroit 19
Connors, John J.....3546 Trumbull Ave., Detroit 8
Cook, James A.....2246 20th Street, Wyandotte
Cook, James C.....3825 Brush St., Detroit 1
Cookinham, Frank.....999 S. Highland, Dearborn
Cooksey, Norton J.....62 W. Kirby, Detroit 2
Cooksey, Warren B.....19510 Stratford Rd., Detroit 21
Cooper, Edmund L.....914 Shirley Dr., Birmingham
Cooper, James B.....18145 Mack Ave., Detroit 24
Cooper, Ralph R.....850 Lakeland, Grosse Pointe 30
Cooper, Richard F.....1553 Woodward Ave., Detroit 26
Corbeille, Catherine.....3011 W. Grand Blvd., Detroit 2
Cortez, Joseph A.....19350 W. McNichols, Detroit 15
Costello, Russell T.....3001 W. Grand Blvd., Detroit 2
Costello, Stephen D.....2031 West Road, Trenton
Cotant, John F.....14341 W. McNichols, Detroit 35
Cotruro, Louis D.....3640 McDougall Ave., Detroit 7
Cotton, Schuyler O. (R).....7904 Vernor Highway, Detroit 9
Coulter, Wm. J.....5258 Chatsworth, Detroit 24
Courtney, Rufus S.....Wayne Co. Gen. Hosp., Eloise
Courville, Chas. J.....1202 Maccabees Bldg., Detroit 2
Cowan, Wilfrid.....14239 Chandler Pk. Dr., Detroit 13
Cowen, Leon B.....5057 Woodward Ave., Detroit 2
Cowen, Robt. L.....91 E. Kirby, Detroit 2
Cox, Frank, Jr.....Henry Ford Hospital, Detroit 2
Coyle, James E.....573 Fisher Bldg., Detroit 2
Craig, Roy E.....74 Fontana Lane, Grosse Pt. Shores
Crawford, Edward W.....63 Meadow Lane, Grosse Pointe 36
Crawford, Robert I.....24651 W. McNichols Rd., Detroit 19
Crews, Thos. H.....3011 W. Grand Blvd., Detroit 2
Crockett, E. E. J.....7341 W. Warren, Detroit 10
Croll, Leo J.....5057 Woodward Ave., Detroit 2
Croll, Maurice.....5057 Woodward Ave., Detroit 2
Crook, Chas. L.....60 Colorado St., Highland Park 3
Cross, Harold E.....68 N. Deepland Rd., Grosse Pointe
Crossen, Robert J.....933 David Whitney Bldg., Detroit

Croushore, James E.....3001 W. Grand Blvd., Detroit 2
Cubberly, Robt. B.....1800 Tuxedo St., Detroit 6
Cueto, Jose M.....14014 E. 7 Mile Rd., Detroit 5
Curhan, Jos. H.....18709 Meyers Rd., Detroit 35
Curtis, Frank E.....10 Peterboro St., Detroit 1
Curtiss, Wm. P.....3181 E. Jefferson, Detroit 7
Cusick, Paul L.....1108 Stroh Bldg., Detroit 26
Czuj, John M.....17198 Oak Dr., Detroit 21

Daignault, M. F.....14300 W. McNichols Rd., Detroit
Daitch, Martin H.....13011 W. McNichols Rd., Detroit 35
Dale, Esther H.....1401 Rivard St., Detroit 7
Dale, Mark.....3702 E. 8 Mile Rd., Detroit 34
Daly, Eugene T.....21714 Fenkell St., Detroit 23
Danforth, James C., Jr.....20175 Mack Ave., Detroit 36
Danforth, Mortimer E. (L).....8655 E. Jefferson, Detroit 14
Danforth, Robt. D.....20175 Mack Ave., Detroit 36
Daoust, Patrick H.....VA Hosp., Dearborn
Darling, Chas. E.....673 Fisher Bldg., Detroit 2
Darling, Milton A.....673-4 Fisher Bldg., Detroit 2
Darnley, James D.....2799 W. Grand Blvd., Detroit 2
Darpin, Peter H. (L).....6602 W. Fort St., Detroit 9
Dashiell, Grayson F.....1800 Tuxedo, Detroit 6
Davidson, David M.....3011 W. Grand Blvd., Detroit 2
Davidson, Harold H.....17111 Indiana, Detroit 21
Davidson, Harry O.....2799 W. Grand Blvd., Detroit 2
Davies, Thos. S. (L).....15425 Kercheval St., Grosse Pointe 30
Davies, Windsor S.....28 W. Adams Ave., Detroit 26
Davis, Herbert A.....15565 Champagne, Allen Park
Davis, Wm. N.....1250 Middlebelt Rd., Inkster
Dawson, W. A. (R).....304 Avenue B S.E., Winter Haven, Fla.
Day, A. Jackson.....245 Cloverly Rd., Detroit 36
Day, Francis T.....18540 Mack, Detroit 36
Day, Jay C.....1553 Woodward Ave., Detroit 26
Dean, Carleton R. (M).....Off. of Vocnl. Rehab., 42 Broadway, Room 1200, New York City 4, N. Y.
De Busk, Roger W.....4160 John R St., Detroit 1
Deering, Robt. J.....1359 Champaign, Lincoln Park
Defever, Cyril R.....19787 Mack Ave., Detroit 36
De Giustino, Caesar.....1175 E. Grand Blvd., Detroit 11
De Groat, Albert F.....1151 Taylor Ave., Detroit 2
Delaini, Stella, M.....3011 W. Grand Blvd., Detroit 2
Delaney, James R.....1020 Dav. Whitney Bldg., Detroit 26
De Lawrence, Betty J.....21576 Michigan Ave., Dearborn
De Lawrence, Thomas.....21576 Michigan Ave., Dearborn
Del Giorno, Thos. E.....St. Johns Hospital, Detroit 36
Del Valle, Mario.....9801 Conant, Detroit 12
Demaray, John F. (L).....15312 Burt Rd., Detroit 23
Dennis, Melvin S.....751 S. Military St., Dearborn
Deponio, Sylvester A.....20215 Van Dyke Ave., Detroit 34
Deresz, Alphonse R.....4204 E. Outer Dr., Detroit 34
Derleth, Paul E.....563 W. Oakridge, Detroit 20
Derr, John W.....702 Maccabees Bldg., Detroit 2
Derrick, C. F.....3677 Fort Street, Lincoln Park
De Smyter, Geo. C.....15527 E. Warren, Detroit 24
De Spelder, Ray E.....2970 W. Grand Blvd., Detroit 2
Deuby, Owen J.....15121 7 Mile Rd., Detroit
Devine, Herbert W.....22101 Moross Rd., Detroit 36
Diakow, Lillian M.....2853 Biddle St., Wyandotte
Dibble, Harry F. (L).....1553 Woodward Ave., Detroit 26
Dickenman, Robt. C.....Presbyterian Med. Cen., San Francisco 15, Cal.
Dickson, Basil R.....337 W. Grand Blvd., Detroit 16
Dickson, Elias L., Jr.....7716 Oakland Ave., Detroit 11
Dickson, Laurie C., Jr.....400 Lincoln Rd., Grosse Pointe 30
Dickson, Leon A.....5535 W. Chicago, Detroit 4
Dickson, Mary D.....18424 Mack Ave., Grosse Pointe 36
Diebel, Nelson W.....660 Cadieux Rd., Detroit 30
Diekman, Fred C.....15800 W. McNichols Rd., Detroit 35
Dieterich, Gordon C.....820 E. University, Ann Arbor
Dietze, Margaret R.....861 Monroe, Dearborn
Dietzel, Hugo O. (R).....844 Hemlock Dr., San Carlos, Calif.
Di Lella, Leonard L.....Henry Ford Hosp., Detroit 2
Dill, Hugh L.....16114 E. Warren Ave., Detroit 24
Dill, J. Lewis.....18615 Birchcrest, Detroit 21
Di Loreto, Panfilo C.....285 Vincennes Pl., Detroit 36
Di Maso, Gennaro J.....21501 Kelly, East Detroit
Dimond, Geo. E.....6853 Orchard St., Dearborn
Dittmer, Edwin F.....18412 Mack Ave., Detroit 36
Ditzler, John W.....581 Rivard Blvd., Detroit 30
Dixon, Fredk. W.....245 S. Martha, Dearborn
Dixon, Ray S. (L).....5001 Van Dyke, Detroit 13
Dodds, John C. (L).....30 Morand Road, Detroit 36
Dodenhoff, Chas. F.....18031 Kelly Rd., Detroit 24
Dodrill, Forest D.....Woodberry Dr., Bloomfield Hills
Doering, Wendell R.....17555 James Couzens, Detroit 35
Dolan, Edward A.....817 David Whitney Bldg., Detroit 26
Dolega, Stanley F.....15640 E. Warren Ave., Detroit 24
Dolgoff, Sidney.....15600 Michigan Ave., Dearborn
Dolin, Simon.....Lynn Hospital, Detroit 17
Domzalski, Casimir A.....5361 McDougall Ave., Detroit 11
Domzalski, Henry M.....15252 Gratiot Ave., Detroit 5
Donald, Douglas.....7815 E. Jefferson Ave., Detroit 14
Donovan, Eugene T.....13365 Michigan Ave., Dearborn
Donovan, Richard S.....17555 James Couzens, Detroit 35
Doran, John H.....15101 Plymouth Rd., Detroit 27
Dorman, Jack.....18245 Warrington Dr., Detroit 21
Dorsey, John M.....65 Moss Avenue, Highland Park 3
Doty, Chester A. (L).....1553 Woodward Ave., Detroit 26
Doub, Howard P.....2799 W. Grand Blvd., Detroit 2
Dougherty, Edward A., Jr.....18241 W. McNichols Road, Detroit 19
Douglas, Clair L. (L).....1553 Woodward Ave., Detroit 26
Douglass, Robt. C.....32316 Grand River Ave., Farmington
Dovitz, Benj. W.....16820 Greenfield Ave., Detroit 35
Dowdle, Edward (L).....2501 W. Grand Blvd., Detroit 8
Downer, Ira G.....8445 E. Jefferson Ave., Detroit 14
Downes, Geo. O.....15062 Houston, Detroit 5
Downes, Haskell E.....Henry Ford Hosp., Detroit 2
Drake, Ellery T......25701 Joy Road, Dearborn
Drake, Ellet H.....2799 West Grand Blvd., Detroit 2
Drake, James J. (R).....8845 Marygrove Dr., Detroit 21
Draves, Edward F.....19647 Joy Rd., Detroit 28
Drazek, Jos. A.....18980 Wyoming, Detroit 21
Drews, Robt. S.....12500 Broadstreet Blvd., Detroit 4
Drinkaus, Harold I. (M).....1029 Yorkshire, Grosse Pte. 30
Drompp, Ben W.....Det. Receiving Hosp., Detroit 26
Droock, Victor.....10 Peterboro St., Detroit 1
D'Sena, Dorothy .....35084 Chestnut, Wayne
Dubin, Jos. J.....10401 W. Chicago Blvd., Detroit 4
Dubnove, Aaron.....2115 W. Grand Blvd., Detroit 8
Dubpernell, Martin S. (L).....4019 Gilbert St., Detroit 10
Dubpernell, Robt. O.....18595 Grand River, Detroit 23
Dudek, John J.....16401 Grand River, Detroit 27
Dumke, Paul R.....2799 W. Grand Blvd., Detroit 2
Dundas, Edward M.....1235 Beechmont, Dearborn
Dunlap, Henry A.....7815 Jefferson Ave. E., Detroit 14
Dunn, Cornelius E.....3496 Burns, Detroit 14
Dupler, Gerald E.....10 Peterboro, Detroit 1
Durham, Everett W.....844 N. Highland St., Dearborn
Durham, Robt.....Henry Ford Hosp., Detroit 2
Durocher, Edmund J. (L).....4158 W. Jefferson Ave., Ecorse 18
Dutcher, Dwight J.....711 S. Oxford, Detroit 36
Duwe, Frank A.....25296 Fenkell, Detroit 39
Dwaihy, Paul J.....14530 E. Warren, Detroit 15
Dwyer, Francis W.....14440 W. McNichols, Detroit 35
Dyer, H. Lorne.....20133 Valley Rd., Northville
Dykema, Rosemary M.....18424 Mack Ave., Detroit 36
Dziuba, John F.....18901 W. Warren Ave., Detroit 28
Dzul, Paul.....14620 E. 7 Mile Rd., Detroit 5

Eades, Chas. C.....19635 Mack Ave., Detroit 36
Eadie, Gordon A.....16083 Southampton St., Livonia
Eakins, F. J. (R).....Henderson County, Robards, Ky.
Easterly, Robt. L.....1404 Ford Avenue, Wyandotte

Eaton, Crosby D.....3011 W. Grand Blvd., Detroit 2
Echt, Raymond J.....Box 3059, Detroit
Eckhous, Arthur W.....1015 Kales Bldg., Detroit 26
Economy, Donald E.....7854 Kentucky, Dearborn
Eder, Saml. J.....5057 Woodward Ave., Detroit 2
Edgar, Irving I.....5057 Woodward Ave., Detroit 2
Edmonds, Gerald W.....19795 St. Marys Ave., Detroit 35
Edmonds, Wm. N.....18525 Merriman Rd., Livonia
Edmondson, Robt. B.....18501 Mack Ave., Detroit 36
Edwards, James G.....17751 E. Warren Ave., Detroit 24
Egan, Charles F.....Wyandotte Gen. Hosp., Wyandotte
Eisman, Clarence H. (L).....1121 Whittier Rd., Grosse Pointe 30
Eldredge, Edward F.....18540 Mack Ave., Grosse Pointe 36
Elliott, Robt. N.....976 Maccabees Bldg., Detroit 2
Elliott, Wm. G.....4101 Fenkell Ave., Detroit 38
Ellis, Frank R.....800 S. Lafayette, Dearborn 7
Elman, Meyer J.....14002 Woodward Ave., Highland Park 3
Elson, Abraham L. (A).....20236 Westmoreland, Detroit 19
Elvidge, Robt. J.....2900 W. Grand Blvd., Detroit 2
Emmert, Herman C. (L).....4927 N. 34th, Arlington 7, Va.
Enfroy, Henri L.....2001 Tuxedo, Detroit 6
Engel, Earl H.....2336 Van Alstyne Blvd., Wyandotte
Engstrom, Fredk. W.....2021 Monroe, Dearborn
Engstrom, Ruby M.....1777 Culver Ave., Dearborn
Eno, Laurel S.....212 Eastland Pr. Bldg., Detroit 36
Ensign, Dwight C.....Franklin
Erickson, Eldon W.....25750 W. Outer Dr., Lincoln Park
Erman, Jos. M.....9225 Grand River, Detroit 4
Eschbach, Jos. W.....935 S. Military St., Dearborn
Ettinger, Clayton J. (L).....18734 Woodward Ave., Highland Park
Eurs, Frank J.....432 E. Hancock, Detroit 1
Evans, E. Warren.....9025 Linwood, Detroit 6
Evans, Gomer P., Jr.....1553 Woodward Ave., Detroit 26
Evans, Jos. M.....16431 Harper, Detroit 24
Evans, Leland S.....16545 Trinity, Detroit 19
Evison, Emerson O. (A).....1003 Hawthorne Rd., Grosse Pte. Woods
Ewing, Chas. H.....17120 E. Warren, Detroit 24
Eyler, Wm. R.....2799 W. Grand Blvd., Detroit 2
Eyres, Alfred E.....3011 W. Grand Blvd., Detroit 2

Fachnie, Harold L.....4741 Spokane Ave., Detroit 4
Faello, Sebastian J.....16840 E. Warren Ave., Detroit 24
Fagin, Irving D.....18254 Livernois Ave., Detroit 21
Falick, Mordecai L.....3011 W. Grand Blvd., Detroit 2
Falk, Ira E.....17411 Cherrylawn, Detroit 21
Fallis, Lawrence S.....2799 W. Grand, Detroit 2
Fandrich, Theodore S. (R).....17012 Maumee Ave., Grosse Pointe 30
Farbman, Aaron A.....14515 Kercheval, Detroit 15
Farmer, Wm. L., Jr.....8633 John R St., Detroit 2
Farnam, Larry M., Jr.....19787 Mack Ave., Detroit 36
Faunce, Sherman P.....1824 Seminole St., Detroit 14
Fea, John F.....Mt. Carmel Mercy Hosp., Detroit 35
Feigelson, Howard H.....Sinai Hospital, Detroit 35
Felcyn, W. Geo.....2091 W. Grand Blvd., Detroit 8
Feld, David.....15101 W. McNichols Rd., Detroit 35
Feldkamp, Lee E.....585 Forest Ave., Plymouth
Feldman, Nathanial L.....24370 Tamarack Circle, Southfield
Feldman, Paul H.....16800 Greenfield, Detroit 35
Feldstein, Martin Z.....13345 W. McNichols Rd., Detroit 35
Fellner, Wm. A.....3 202 Gen. Motors Bldg., Detroit 2
Fenech, Harold B.....324 Professional Bldg., Detroit 1
Fenner, Wm. G.....12454 E. Outer Dr., Detroit 24
Fennessey, John F.....512 Rivard, Grosse Pte. 30
Fenton, Edwin H.....15125 Grand River Ave., Detroit 27
Fenton, Meryl M.....8600 W. McNichols Rd., Detroit 21
Fenton, Russell F.....15125 Grand River Ave., Detroit 27
Fenton, Stanley C.....15618 E. Warren, Detroit 24
Fentress, Vance.....641 David Whitney, Detroit 26
Ferrara, Louis V.....13805 Park Grove, Detroit 5
Ferrara, Richard J.....20323 Mack, Grosse Pte. Woods
Ferrara, Virginia M.....18422 Woodward, Detroit 3
Ferris, George N.....17555 James Couzens, Detroit 35
Ferszt, Marion S.....18019 Rutherford, Detroit 35
Figiel, Leo S.....719 Berkshire, Grosse Pte. 30
Figiel, Steven J.....4160 John R St., Detroit 1
Filkin, Lawrence E.....621 Fairbrook, Northville
Fill, Leon .....987 E. Jefferson, Detroit 7
Finch, Alvis D.....18000 Jas. Couzens Hwy., Detroit 35
Finch, F. Sinclair.....894 N. Renaud, Detroit 36
Fine, Edward .....1112 Kales Bldg., Detroit 26
Fine, Gerald.....Henry Ford Hosp., Detroit 2
Fink, Saml.....10161 Burton, Oak Park
Finkell, Lawrence J.....15231 W. 7 Mile Rd., Detroit 35
Finck, Jerome H.....25447 Plymouth Rd., Detroit 39
Finkelstein, M. B.....18254 Livernois, Detroit 21
Finkelstein, Lionel (A).....21415 W. 8 Mi. Rd., Detroit 19
Firnschild, Paul G.....2966 Biddle, Wyandotte
Fischer, Fredk. J.....654 Fisher Bldg., Detroit
Fischhoff, Jos.....18674 Fairfield, Detroit 21
Fishbein, Herbert L.....987 E. Jefferson Ave., Detroit 7
Fisher, Geo. S.....1709 Dav. Whitney Bldg., Detroit 26
Fisher, James M.....176 Merriweather, Grosse Pte. 36
Fisher, Otto O. (L).....2475 Iroquois Ave., Detroit 14
Fisher, Ralph L.....8445 E. Jefferson Ave., Detroit 14
Fitzgerald, James M.....2536 W. Grand Blvd., Detroit 8
Fitzpatrick, F. W.....17300 Schaefer, Detroit 35
Flaherty, Henry J.....19600 W. McNichols Rd., Detroit 19
Flaherty, Norman W.....24315 Fairmont Dr., Dearborn
Fleming, Jos. L.....7360 LaSalle Blvd., Detroit 6
Flora, Wm. R.....8100 E. Jefferson Ave., Detroit 14
Flower, James A.....14140 Puritan Ave., Detroit 27
Fogt, Herbert E. (L).....11801 Morang Dr., Detroit 24
Fogt, Robt. G.....11801 Morang Dr., Detroit 24
Foley, Hugh S.....22255 W. Michigan Ave., Dearborn
Font, Anthony J.....710 Kales Bldg., Detroit 26
Foote, John A.....1336 Southfield Rd., Lincoln Park
Ford, Geo. A. (L).....28 W. Adams Ave., Detroit 26
Fordell, Frank S.....441 S. Oakwood Ave., Detroit 17
Forgrave, Edward G.....18520 Grand River, Detroit 23
Forrer, Gordon R.....20141 James Couzens, Detroit 35
Fosnaugh, Robert P.....6214 Appoline, Dearborn
Foster, E. Bruce.....852 Fisher Bldg., Detroit 2
Foster, Owen C.....1553 Woodward Ave., Detroit 26
Foster, Wallace M.....13700 Woodward Ave., Highland Park 3
Fowler, Melvin E.....247 E. Warren St., Detroit 1
Fraiberg, Paul L.....13001 W. Chicago Blvd., Detroit 28
Frame, Boy.....1051 Covington Dr., Detroit 3
France, Chas. J.....838 Berkshire Rd., Grosse Pointe 30
Franjac, Marion J.....25447 Plymouth Rd., Detroit 39
Franklin, John E.....27545 Mich. Ave., Inkster
Franzen, Nils A.....19566 W. Grand River, Detroit 23
Frazer, Mary M.....812 Kales Bldg., Detroit 26
Frederickson, Geo. C.....1116 Maccabees Bldg., Detroit 2
Free, Harry W.....14300 W. McNichols, Detroit 35
Freedman, John.....4853 Second Blvd., Detroit 1
Freedman, Milton.....18626 Santa Barbara Dr., Detroit 21
Freeman, Donald K.....881 Chalmers St., Detroit 15
Freeman, Mable.....1316 David Broderick Tower, Detroit 26
Freeman, Michael W.....1810 Wellesley Dr., Detroit 3
Freeman, Wilmer.....940 East 7 Mile Rd., Detroit 3
Freid, Saml.....16850 Joy Rd., Detroit 28
Freier, Morton L.....13051 Puritan Ave., Detroit 27
Freitas, Eugene L.....St. Johns Hospital, Detroit 36
Fremont, J. Courtney.....1202-4 David Whitney Bldg., Detroit 26
Frenkel, Eugene P. (A).....University Hosp., Ann Arbor
Frey, James L.....1553 Woodward Ave., Detroit 26
Friedlaender, Alex S.....10300 W. 7 Mile Rd., Detroit 21
Friedlaender, Sidney.....10300 W. 7 Mile Rd., Detroit 21
Friedman, David.....2429 E. Milwaukee Ave., Detroit 11
Friedman, Isidor H.....3773 2nd Ave., Detroit 1
Friedman, Seymour.....5132 Allen Rd., Allen Park

Fritz, Geo. E.....22101 Moross Rd., Detroit 36
Frost, Harold M.....Henry Ford Hosp., Detroit 2
Fryfogle, James D.....C.D. 8 Med. Concourse, Northland Center, Southfield
Fuller, Hugh M.....1257 David Whitney Bldg., Detroit 26
Fulton, Wm. J. (R).....28536 Wildwood Trail, Farmington

Gaffney, J. Mitchell.....13600 Ohio, Detroit 21
Gagliardi, Carl A.....3516 Fort St., Lincoln Park
Gahagan, Thomas.....Henry Ford Hosp., Detroit 2
Gajewski, John E.....Parke Davis and Co., Detroit 32
Galantowicz, H. C.....7433 Mich. Ave., Detroit 10
Galdonyi, Laslo..2311 David Broderick Tower, Detroit 26
Galdonyi, Nicholas.....8001 W. Jefferson Ave., Detroit 17
Galerneau, Darrel B.....7394 Engleman, Centerline
Gall, Henry.....275 W. Grand Blvd., Detroit 16
Galvin, Paul P.....14440 W. McNichols, Detroit 35
Ganos, Thos.....6525 Park St., Allen Park
Ganschow, John H.....1840 Holbrook Ave., Detroit 12
Gardner, Lawrence W.....6071 W. Outer Dr., Detroit 35
Gardner, Max L.....19557 Mack Ave., Grosse Pointe
Gariepy, Louis B.....16401 Grand River St., Detroit 27
Gariepy, Louis J.....16401 Grand River, Detroit 27
Gass, H. Harvey.....958 Fisher Bldg., Detroit 2
Gaston, Herbert B.....7501 W. Morrow Circle, Dearborn
Gates, Nathaniel (L).....516 Professional Bldg., Detroit 1
Gaynor, Alex.....1755 E. 7 Mile Rd., Detroit 3
Gehring, Harold W.....20211 Greenfield, Detroit 35
Geib, Ledru O. (L).....3528 Van Dyke Ave., Detroit 14
Geitz, Wm. A.....7234 E. Forest Ave., Detroit 14
Gelbach, Philip D.....2900 S. Fort St., Detroit 17
Gemeroy, Jos. C.....962 Fisher Bldg., Detroit 2
Gerbasi, Francis S.....2201 E. Jefferson, Detroit 7
Gerisch, Robt. A.....1217 David Whitney Bldg., Detroit 26
Gerondale, Elmond J.....3001 W. Grand Blvd., Detroit 2
Gibson, Dunbar P.....1098 E. Grand Blvd., Detroit 7
Gibson, Wm.....7440 Mack Ave., Detroit 14
Giese, Fred W.....18526 Schoolcraft, Detroit 23
Gigante, Nicola.....10 Peterboro, Detroit 1
Gigliotti, David.....2500 W. Grand Blvd., Detroit 8
Gilbert, Harold R.....13146 Phelps, Wyandotte
Gillespie, Stephen M.....1011 Haigh Ave., Dearborn
Gilpin, Watson A.....4560 Nicigara Lane, Birmingham
Gilreath, James L.....8751 Linwood, Detroit 6
Gimbel, Nicholas S.....1401 Rivard St., Detroit 7
Ginsberg, Harold I.....15344 McNichols Rd., Detroit 35
Gitlin, Chas.....15301 W. 9 Mile Rd., Oak Park 37
Gittins, Perry C.....20210 Renfrew Ave., Detroit 21
Givens, Donovan H.....3453 Charlevoix Ave., Detroit 7
Gizynski, Waldemar E.....15400 Edington Rd., Livonia
Glas, Wayne W.....Wayne Co. Gen. Hosp., Eloise
Glasgow, Gordon K.....1174 3 Mile Rd., Grosse Pointe 30
Glassman, Saml. (L).....9233 Emerson Surf Side Miami Beach, Florida
Glazer, Walter S.....1490 Charrington Rd., Birmingham
Glees, John L.....P.O. Box 1318, Detroit
Glemet, Raymond B.....3314 Bagley Ave., Detroit 16
Glikman, Victor.....20131 James Couzens, Detroit 35
Glowacki, Ben F.....5057 Woodward Ave., Detroit 2
Glowacki, Edward T.....5224 St. Antoine St., Detroit 2
Godley, Alegro J.....18060 Conant St., Detroit 34
Goerke, Elmer A.....36663 Goddard Rd., Romulus
Goetz, Angus G.....1553 Woodward Ave., Detroit 26
Goins, Wm. F.....6675 Tireman, Detroit 4
Goldberg, Arthur.....340 E. 8 Mile Rd., Detroit 3
Goldberg, Harry H. (L).....2211 Woodward Ave., Detroit 1
Goldberg, Nathan H.....2211 Woodward Ave., Detroit 1
Golden, Alfred.....26764 York Rd., Huntington Woods
Goldfaden, Alfred.....6658 W. Fort St., Detroit 9
Goldin, Morris I.....5057 Woodward Ave., Detroit 2
Goldman, Aubrey.....17191 James Couzens, Detroit 35
Goldman, Perry.....16805 Princeton, Detroit 21
Goldrath, Milton H.....569 Fisher Bldg., Detroit 2
Goldstein, Abe S.....18450 North Lawn, Detroit 21
Goldstein, Sidney.....22140 Marlow Ave., Oak Park 37
Goldstone, Rubie R.....10 Peterboro, Detroit 1
Gollman, Maurice D.....5057 Woodward Ave., Detroit 2
Gomley, Romuald H.....7220 Gratiot Ave., Detroit 13
Gonne, Wm. S.....18903 Fairfield Ave., Detroit 21
Goodman, Maxwell M.....22265 Garrison, Dearborn
Goodman, Virgil P.....762 Bedford Rd., Grosse Pte. Pk.
Goodwin, Norman L.....18700 Meyers Rd., Detroit 35
Goodwin, Warren W.....20131 James Couzens, Detroit 35
Goodwin, William P.....3413 McDougall, Detroit 7
Gordon, John W. (R).....12700 Mendota Ave., Detroit 38
Gordon, Wm. E.....18058 Greenfield, Detroit 35
Gorelick, Martin J.....23901 Michigan Ave., Dearborn
Gorning, Raymond P.....857 Marlborough Ave., Detroit 15
Goryl, Stephen V.....21501 Kelly, East Detroit
Goss, Saml. B.....10 Peterboro, Detroit 1
Gostine, Edmond J.....9750 Chalmers, Detroit 5
Gottlieb, Jacques S.....951 E. Lafayette, Detroit 7
Gottschalk, Fred W.....5057 Woodward Ave., Detroit 2
Goudie, Fredk. D.....27210 Eldorado, Lathrup Village
Gould, Sylvester E.....Wayne Co. Gen. Hosp., Eloise
Goux, Raymond S. (L).....545 David Whitney Bldg., Detroit 26
Grace, Jos. M.....27453 Rainbow Circle, Lathrup Village
Grady, Jos. A.....946 3 Mile Dr., Detroit 30
Grafflin, Allan L.....Henry Ford Hosp., Detroit 2
Graham, John G., Jr.....491 Lincoln Rd., Grosse Pointe 30
Graham, Julius A.....4102 Brush St., Detroit 1
Grajewski, Leo E. (L).....2201 E. Jefferson Ave., Detroit 7
Granger, Francis L.....14160 Gratiot Ave., Detroit 5
Granger, George R.....705 David Whitney Bldg., Detroit 26
Grant, Abraham H.....18024 Sorrento, Detroit 35
Grant, Heman, E. (L).....Lewiston
Gratton, Henri L. (L).....76 W. Adams Ave., Detroit 26
Graves, James H.....17007 Kercheval, Detroit 30
Gray, Howard O.....1308 Broadway, Detroit 26
Gray, Jacques P.....8900 E. Jefferson Ave., Detroit 14
Greek, Louis M.....12901 E. McNichols, Detroit 5
Green, Edward W.....2799 W. Grand Blvd., Detroit 2
Green, Ellis R. (L).....5172 Scotten Ave., Detroit 10
Green, Lewis.....13000 Grand River, Detroit 27
Green Louis M.....14636 E. 7 Mile Rd., Detroit 5
Green, Nelson W.....15800 W. McNichols, Detroit 35
Greenberg, Jack R.....15743 W. 7 Mile Rd., Detroit 35
Greenberg, Julius J.....5238 W. Outer Drive, Detroit 35
Greenberg, Morris Z.....9105 Van Dyke, Detroit 13
Greenberg, Stanley.....3919 John R Street, Detroit 1
Greene, John B.....2179 W. Grand Blvd., Detroit 8
Greenidge, Robt. I. (L).....4839 Beaubien St., Detroit 1
Greenlee, Wm. T.....15053 Maddelein, Detroit 5
Greenslit, Frank S.....U.S. Vets. Admin. Hosp., Dearborn
Gregory, Louis J.....15220 Collingham, Detroit 5
Greifenstein, F. E.....1401 Rivard, Detroit 7
Greiner, Bert A.....14607 E. 7 Mile Rd., Detroit 5
Grekin, John N.....7421 W. 7 Mile Rd., Detroit 21
Grier, Wm. H.....2200 W. Boston Blvd., Detroit
Griffin, Robert J.....4900 Cadieux, Detroit 24
Griffiths, Svdney J.....15400 Plymouth Rd., Detroit 27
Grimaldi, Gregory J.....2983 Seminole, Detroit 14
Grinstein, Alexander.....18466 Wildemere, Detroit 21
Grishkoff, M. A.....2201 E. Jefferson, Detroit 7
Griva-Lizlovs, S.....29901 Ford Rd., Garden City
Grob, Otto.....7385 Parkstone Lane, Birmingham
Gross,. Louis.....18937 Van Dyke St., Detroit 34
Grossman, Solomon C.....538 Maccabees Bldg., Detroit 2
Guerrero, Jose.....13700 Woodward, Detroit 3
Guidot, Julian M.....16401 Grand River, Detroit
Guimaraes, Abilio S.....7301 Schaffer Hwy., Dearborn
Guinan, Geo. E.....27614 Gainsborough, Inkster
Gulick, Arthur E.....1429 Dav. Whitney Bldg., Detroit 26
Gurdjian, Elisha S.....1553 Woodward Ave., Detroit 26
Gurskis, Eugenia E.....504 Kales Bldg., Detroit 26
Gutow, Benjamin R.....7441 W. 7 Mile Rd., Detroit 21
Guyton, Jack S.....2799 W. Grand Blvd., Detroit 2

Hacker, Elaine M.....293 Merriweather, Grosse Pointe Farms

Hackert, John L.....2900 S. Fort St., Detroit 17
Hackelman, G. L. (A).....430 Pitsanuloke Road, Bangkok, Thailand
Haddad, Benjamin F.....1010 Mich. Mutual Bldg., Detroit 26
Hadesman, Donald.....985 E. Jefferson, Detroit 7
Haefele, Leslie P.....29108 Ford Rd., Garden City
Hagermoser, H. H. (M).....5991 Yorkshire, Detroit 24
Hagge, Donald R.....1553 Woodward Ave., Detroit 26
Haidostian, B. H.....18456 Grand River, Detroit 23
Haitinger, K. S.....327 Professional Bldg., Detroit 1
Haking, Leonard.....14014 E. 7 Mile Rd., Detroit 5
Halekas, G. Peter.....21727 Mack Ave., St. Clair Shores
Hall, Arch H.....10 Peterboro, Detroit 1
Hall, E. Walter.....19210 Bretton Dr., Detroit 23
Hall, Ralph E.....10 Peterboro St., Detroit 1
Hall, Robt. J.....6014 W. Fort St., Detroit 9
Hall, Winthrop D.....5237 Oakman Blvd., Dearborn
Hallen, Leonard J.....18205 Parkside, Detroit 21
H'Amada, Norman K.....315 Snell Rd., R. 2, Rochester
Hamburg, Robt. H.....17317 Chapel Ave., Detroit 19
Hamburger, Joel I. (A).....16650 James Couzens, Detroit 21
Hamburger, Stuart W.....16650 James Couzens Hwy., Detroit 21
Hamil, Brenton M.....Henry Ford Hosp., Detroit 2
Hamilton, Norman C.....300 W. McNichols Rd., Detroit 3
Hamilton, Quentin P.....Medical Arts Bldg., Detroit 3
Hammer, Edwin J.....16616 Mack Ave., Detroit 24
Hammer, Roy W.....16620 E. Warren, Detroit 24
Hammond, Arthur E.....1553 Woodward Ave., Detroit 26
Hammond, James L. (L).....1911 Sunset Dr., Escondido, Calif.
Handel, Jack E.....1800 Tuxedo, Detroit 6
Hank, Emil J.....32316 Grand River, Farmington
Hansen, Fredk. E. (L).....Port Austin
Hansen, John W.....8877 Perrin Dr., Livonia
Hanyi, Karl.....1771 Ackley, Wayne
Hardstaff, Roy J. (L).....648 Neff Rd., Grosse Pte. 30
Hardt, Barbara A. (A).....15867 Mansfield, Detroit 27
Hardy, Clarence M.....23019 Ecorse Rd., Taylor
Hardy, Warren G.....801 Dav. Whitney Bldg., Detroit 26
Harelik, Ely W.....15201 W. McNichols, Detroit 35
Harkaway, Roman W.....19125 Van Dyke, Detroit 34
Harley, Garth H.....21831 Willoway Rd., Dearborn
Harley, Louis M.....4100 W. McNichols Rd., Detroit 21
Harm, Winfred B.....16260 Cherrylawn Ave., Detroit 21
Harmon, Edwin L.....441 E. Jefferson, Detroit 26
Harmon, Walter, Jr.....2510 E. Davison, Detroit 12
Harper, Jesse T.....1252 Dav. Whitney Bldg., Detroit 26
Harrell, Voss.....1035 Oakwood Ave., Dearborn 7
Harrington, F. L.....14341 W. McNichols, Detroit 35
Harris, A. D.....7341 W. Warren, Detroit 10
Harris, Harcourt G.....9141 Dexter Blvd., Detroit 6
Harris, Harold H.....8011 W. Vernor Highway, Detroit 9
Harris, Ivor D.....1553 Woodward Ave., Detroit 26
Hart, Charles E.....23845 Van Dyke, Centerline
Hart, John C.....9341 Moffat, Detroit 13
Harten, James N.....25750 W. Outer Dr., Lincoln Park
Hartkop, Henry H.....20055 Mack Ave., Detroit 36
Hartquist, Robt. J.....1495 Fort St., Wyandotte
Hartzell, John B.....7815 Jefferson Ave. E., Detroit 14
Hasley, Clyde K.....1553 Woodward Ave., Detroit 26
Hasley, Danl. E.....1401 Rivard, Detroit 7
Hassig, Walter W.....20914 Kelly, East Detroit
Hastings, Orville J.....15744 Harper Ave., Detroit 24
Haszczyc, Vladimir A.....2730 E. Jefferson, Detroit 7
Hathaway, Hubert R.....230 Madison Ave., Detroit 26
Haubrich, Wm. S.....Henry Ford Hosp., Detroit 2
Hauf, Mary A.....10573 Morang, Detroit 24
Hause, Glen E.....18520 Grand River, Detroit 23
Hauser, I. Jerome.....7411 Third Ave., Detroit 2
Hauser, John E.....671 Fisher Bldg., Detroit 2
Hauser, Maurice J. (A).....7411 Third Ave., Detroit 2
Hauss, Robert B.....7348 Kercheval, Detroit 14
Havers, Howard (L).....5057 Woodward Ave., Detroit 2
Hawkins, James W.....14180 Woodmont, Detroit 27
Hayes, A. Lewis.....15121 W. 7 Mile, Detroit 35
Hayes, Dean M.....713 David Whitney Bldg., Detroit 26
Hazen, Roy S.....20526 Grand River Ave., Detroit 19
Heath, Leonard P.....1553 Woodward Ave., Detroit 26
Heavner, Lyle E.....119 Kercheval, Grosse Pointe 36
Hecht, Manes S.....25717 Coolidge, Oak Park 37
Heenan, Theophilus H.....1553 Woodward Ave., Detroit 26
Heideman, Louis E.....20211 Greenfield Rd., Detroit 35
Heins, Marilyn.....387 Mount Vernon, Grosse Pte. Farms
Heldt, Richard F.....1951 Monroe Blvd., Dearborn
Heldt, Thos. J. (L).....2799 W. Grand Blvd., Detroit 2
Hendelman, Manuel H.....17141 Hayes, Detroit 5
Henderson, Allison B.....9041 Dexter Blvd., Detroit 6
Henderson, Arthur B. (L).....10452 Mack Ave., Detroit 14
Henderson, Chas. W.....3011 W. Grand Blvd., Detroit 2
Henderson, Frederic C.....17830 E. Warren, Detroit 24
Henderson, Harold.....3011 W. Grand Blvd., Detroit 2
Henderson, Hugh W.....17830 E. Warren, Detroit 24
Henderson, Leslie T.....14814 E. Warren, Detroit 15
Henderson, Wm. E.....9341 Chalmers, Detroit 13
Henig, Fred N.....7605 W. 7 Mile Rd., Detroit 21
Henkin, Raymond.....20232 Braile, Detroit
Henkin, Wm. A.....18215 Greenfield, Detroit 35
Henrich, Laurence E.....2501 W. Grand Blvd., Detroit 8
Henry, Robert C.....16127 Baylis, Detroit 21
Herbst, Harold B.....20482 Ardmore, Detroit 35
Herrold, Rose E.....1277 E. Grand Blvd., Detroit 11
Herschelmann, Roy F.....3343 Gratiot Ave., Detroit 7
Hertzler, Jack H.....3011 W. Grand Blvd., Detroit 2
Herwick, John T.....2799 W. Grand Blvd., Detroit 2
Hess, Murray W.....23860 Seneca, Oak Park 37
Heyman, Louis F.....19009 W. 7 Mile Rd., Detroit 19
Heyner, Stanley A.....3424 Oakman Blvd., Detroit 4
Hickey, Jos.....6004 W. Fort St., Detroit 9
Hicks, Fredk. G.....1000 Westwood, Birmingham
Hill, Edward J., Jr.....1553 Woodward Ave., Detroit 26
Hill, Welford T.....6303 Mack Ave., Detroit 7
Hillenberg, Sidney J.....19350 W. 7 Mile Rd., Detroit 19
Hiller, Glenn I.....13700 Woodward Ave., Detroit 3
Hiller, Herbert M.....1057 Covington Dr., Detroit 3
Hillier, Leland G.....18750 Woodward Ave., Detroit 3
Hillyer, John W.....26151 Huron River Dr., Flat Rock
Hilton, Wm. E.....5013 Harding, Detroit 13
Hinchman, D. F.....27459 5 Mile Rd., Livonia
Hipps, Chauncey J.....2605 W. Grand Blvd., Detroit 8
Hiratzka, Tomiharu.....1401 Rivard St., Detroit 7
Hirsch, Lore.....212 S. Melborn, Dearborn
Hirschfeld, A. H.....829 Fisher Bldg., Detroit 2
Hirschman, Louis J. (L).....2619 Munson Ave., Traverse City
Hirt, Harry.....18975 Cherrylawn, Detroit 21
Hoagland, F. L. (A).....1260 E. Grand Blvd., Detroit 11
Hoagland, Thos. V.....81 E. Kirby, Detroit 2
Hobbs, Donald V...27305 Southfield Rd., Lathrup Village
Hochman, Morton M.....16633 Plymouth Rd., Detroit 27
Hodges, Jason.....26401 Harper, St. Clair Shores
Hodgkinson, Chas. P.....17546 Meadwood Ave., Lathrup Village
Hoffer, Thos.....5825 Allen Rd., Allen Park
Hoffman, Ben G.....19545 Shrewsbury, Detroit 21
Hoffman, Edward A.....7615 W. Vernor Hwy., Detroit 9
Hoffman, Edwin S.....14877 Warwick Rd., Detroit 23
Hoffman, Harry Y.....15085 E. 7 Mile Rd., Detroit 5
Hoffman, Henry A.....10015 E. Outer Dr., Detroit 24
Hoffman, Louis.....18203 Birchcrest Dr., Detroit 21
Hoffman, Milton C.....18555 E. Warren, Detroit 36
Hoffmann, Martin H.....1311 David Whitney Bldg., Detroit 26
Hogikyan, Azat.....16901 W. McNichols Rd., Detroit 35
Holdredge, Jean M.....3011 W. Grand Blvd., Detroit 2
Hollander, Abraham J.....8026 Michigan Ave., Detroit 10
Hollinger, F. Wayne.....2799 W. Grand Blvd., Detroit 2
Hollis, Henry B.....6809 Sirena, Detroit 10
Holloway, Horace R.....2017 W. Boston Blvd., Detroit 6
Holloway, Janet L.....1116 Maccabees Bldg., Detroit 2
Holmes, Geo. F.....14729 Champaign, Allen Park
Holstein, Arthur P.....7850 E. Jefferson, Detroit 24

Holt, Chas. J., Jr.....1575 Faircourt, Grosse Pointe 36
Holt, Henry T.....5050 Cass St., Detroit 2
Honhart, Fred L. (L).....1405 Berkshire Rd., Grosse Pointe 30
Hooker, Lyle T.....35550 Michigan Ave., Wayne
Hoops, Geo. B. (L).....3001 W. Grand Blvd., Detroit 2
Hopkins, Andrew J.....10149 Michigan Ave., Dearborn
Hopkins, Scovell M.....5057 Woodward Ave., Detroit 2
Hopkins, Wm. J.....1069 Fisher Bldg., Detroit 2
Horkins, Earl J.....10963 Farmington Rd., Livonia
Horn, Robt. C., Jr.....2799 W. Grand Blvd., Detroit 2
Hornbeck, Robert J.....33563 W. 5 Mile Rd., Livonia
Horny, Hugo O.....619 Barrington Rd., Detroit 30
Horton, Reece H.....1553 Woodward Ave., Detroit 26
Horvath, James J.....1553 Woodward Ave., Detroit 26
Hotchkiss, Loris M.....33220 W. 7 Mile Rd., Livonia
House, Walter W., Jr.....10350 12th St., Detroit 6
Howard, Austin Z.....1553 Woodward Ave., Detroit 26
Howard, Philip J.....Henry Ford Hosp., Detroit 2
Howell, Bert F.....10800 Whittier Rd., Detroit 24
Howell, James T.....2799 W. Grand Blvd., Detroit 2
Howes, Homer A...1515 David Whitney Bldg., Detroit 26
Howes, Willard B.....4404 Samosot Rd., Royal Oak
Howlett, Howard T.....3011 W. Grand Blvd., Detroit 2
Hromadko, Louis.....3011 W. Grand Blvd., Detroit 2
Hubbard, John P., Jr.....14620 E. 7 Mile Rd., Detroit 5
Huber, Philip J.....1724 Bassett, Royal Oak
Hudson, J. Stewart.....17443 E. Jefferson Ave., Grosse Pointe 30
Hudson, Wm. A.....1553 Woodward Ave., Detroit 26
Hudspeth, E. Rae.....753 Fisher Bldg., Detroit 2
Huegli, Wilfred A.....16840 E. Warren Ave., Detroit 24
Huggins, H. Horne.....8355 Gratiot, Detroit 13
Hulick, Archie G.....15525 Amherst Rd., Birmingham
Hull, Leroy W. (L)....20115 Canterbury Rd., Detroit 21
Hume, H. Ross, Jr.....1553 Woodward Ave., Detroit 26
Huminski, Thaddeus S.....19244 Van Dyke Ave., Detroit 34
Hummel, Arthur R.....1020 3 Mile Dr., Grosse Pointe 30
Hunt, Theodore H.....19431 Van Dyke Ave., Detroit 34
Hunt, Verne G.....1553 Woodward Ave., Detroit 26
Hunter, Basil H.....13341 Livernois Ave., Detroit 38
Hunter, Donald G.....3245 E. Jefferson, Detroit 17
Hunter, Robert B.....Henry Ford Hosp., Detroit 2
Husband, Chas. W. (L).....14500 W. McNichols, Detroit
Husband, Raymond C...14500 W. McNichols, Detroit 35
Hutchins, M. Colton.....3011 W. Grand Blvd., Detroit 2
Hyatt, Jarvis M.....22340 Michigan Ave., Dearborn
Hyde, Fredk. W., Jr.....Grace Hospital, Detroit 1
Hyland, John R.....13030 Mack Rd., Detroit 15
Hysni, Aliqemal.....8031 W. Vernor Hwy., Detroit 9

Iacobell, Peter H.....19300 Van Dyke, Detroit 34
Ice, Garnet T.....18060 Conant, Detroit 34
Iglesias, Luis J.....20211 Greenfield, Detroit 35
Igna, Eli J.....2799 W. Grand Blvd., Detroit 2
Irvin, Earle A...Ford Motor Co., American Rd., Dearborn
Irwin, Wm. A.....2500 W. Grand Blvd., Detroit 8
Isaacson, Arthur.....250 E. Columbia, Detroit 1
Israel, Barney B.....5057 Woodward Ave., Detroit 2
Israel, J. Gilbert.....5057 Woodward Ave., Detroit 2
Israel, Kenneth.....10607 W. Seven Mile Rd., Detroit 21
Iwata, Herbert T.....7611 Patton Ave., Detroit 28
Izner, Sanford M.....17500 Schaefer Hwy., Detroit 35

Jacknow, David.....60 W. Hancock, Detroit 1
Jacobs, Howard.....12730 W. McNichols Rd., Detroit 35
Jacobson, Lyle F.....645 Mullett, Detroit 26
Jacobson, Samuel D.....Wayne Co. Gen'l. Hosp., Eloise
Jacobus, Wayne N.....21535 Kingsville Dr., Detroit 36
Jaeger, Grove A.....11711 Minden, Detroit 5
Jaekel, Clarence N.....1086 E. Grand Blvd., Detroit 7
Jaffar, Donald J.....734 Maccabees Bldg., Detroit 2
Jaffe, Harold W.....701 David Whitney Bldg., Detroit 26
Jaffe, Jacob.....2211 Woodward Ave., Detroit 1
Jaffe, Julius L.....7463 Harper Ave., Detroit 13
Jaffe, Louis.....18662 Muirland, Detroit 21
Jahsman, Wm. E. (R)....2799 W. Grand Blvd., Detroit 2
Jakacki, Richard Wm.....16763 Stahelin, Detroit 19
James, Thomas N.....Henry Ford Hosp., Detroit 2
Jamieson, Thos. J.....1310 Warwick, Lincoln Park
Janicki, Natalia J.....Eloise Hosp., Eloise
Jarre, Hans A.....Grace Hospital, Detroit 1
Jarsen, Frank J.....817 Beechmont St., Dearborn
Jarvis, Harold F.....14066 Linnhurst, Detroit 5
Jasion, Lawrence J. (A).....11945 Payton, Detroit 24
Jaslow, Robert I.....Plymouth St. Home & Trg. Sch., Northville
Jaynes, Richard V.....29901 Ford Rd., Garden City
Jeffries, Benj.....16321 Mack Ave., Detroit 24
Jend, Wm., Jr.....1365 Cass Ave., Detroit 26
Jend, Wm. J. (L).....3598 Mitchell Ave., Detroit 17
Jenkins, Elwood A.....1102 David Whitney Bldg., Detroit 26
Jennings, Chas. G.....17800 E. 8 Mile Rd., Harper Woods 36
Jensen, Viggo W.....532 Lincoln Rd., Detroit 30
Jentgen, Chas. J. (L).....22101 Moross Rd., Detroit 36
Jeremias, Robt. C.....90 Moss Ave., Highland Park 3
Jewell, F. C.....159 Kercheval Ave., Detroit 36
Jewell, John S.....2021 Monroe, Suite 203, Dearborn
Jocz, Marion W.....945 Trombley Rd., Detroit 30
Jodar, Emery O.....15760 Mack Ave., Detroit 24
Jodar, Loyal W.....19515 Mack, Grosse Pointe 36
John, Hubert R.....5057 Woodward Ave., Detroit 2
Johnson, Aran S.....1462 Hollywood, Grosse Pointe Woods 30
Johnson, David S.....536 Vinewood, Birmingham
Johnson, Gage.....7647 Linwood, Detroit 6
Johnson, Homer L.....2799 W. Grand Blvd., Detroit 2
Johnson, John F.....1401 Rivard, Detroit 7
Johnson, Ralph A.....7815 E. Jefferson Ave., Detroit 14
Johnson, Simon O.....Cadillac Square Bldg., Detroit 26
Johnson, Thos. D.....20526 Grand River, Detroit 19
Johnson, Verne E.....2051 Monroe Ave., Dearborn
Johnson, Vernon P...21327 Harper Ave., St. Clair Shores
Johnson, Vincent C.....599 Lakeshore Rd., Grosse Pointe Shores
Johnson, Wilbur E.....13626 E. 7 Mile Rd., Detroit 5
Johnson, Wm. H. M.....7157-63 Michigan, Detroit 10
Johnston, Everett V.....3919 John R St., Detroit 1
Johnston, John L. (A)..1950 W. McNichols Rd., Detroit 3
Johnston, Jos. A.....Henry Ford Hosp., Detroit 2
Johnston, Wm. E.....3011 W. Grand Blvd., Detroit 2
Johnstone, Benj. I.....555 Fisher Bldg., Detroit 2
Joinville, Euclide V. (L).....1202 Stroh Bldg., Detroit 26
Jones, Adrian R.....15309 Mack Ave., Detroit 24
Jones, Roy D.....10234 Puritan Ave., Detroit 38
Jones, Wm. J.....8209 Allen Rd., Allen Park
Joos, Thad. H.....20861 Mack, Grosse Pointe Woods
Jordan, Prescott, Jr.....645 Mullett St., Detroit 26
Jordan, R. Gerald.....12410 Van Dyke, Detroit 34
Joyce, Stanley J.....1078 Fisher Bldg., Detroit 2
Juliar, Benj.....17305 Muirland Ave., Detroit 21
Jury, Donald B.....18800 Woodward Ave., Detroit 3

Kacklev, James E.....18514 Mack Ave., Detroit 36
Kaine, Henry D.....3011 W. Grand Blvd., Detroit 2
Kalayjian, Bernard S.....14195 Long Acre Rd., Detroit 27
Kalichman, Nathan.....5057 Woodward Ave., Detroit 2
Kallenbach, Rudolf W.....388 Inkster Rd., Inkster
Kallet, Herbert I.....5057 Woodward Ave., Detroit 2
Kallet, Maerit B.....8620 W. McNichols, Detroit 21
Kallman, David.....2351 W. Grand Blvd., Detroit 8
Kallman, Leo.....2351 W. Grand Blvd., Detroit 8
Kallman, Reuben R.....2631 Woodward Ave., Detroit 1
Kamil, Richard S.....14438 McNichols, Detroit 35
Kamin, Louis E. (A).....3395 Cambridge, Detroit 21
Kaminski, Zeno L. (L).....3510 24th St., Detroit 8
Kamperman, Geo. A. (L)..79 Longfellow Ave., Detroit 2
Kane, Archibald V.....2500 W. Grand Blvd., Detroit 8
Kansa, Selma.....19431 Van Dyke, Detroit 34
Kanter, Herman.....13127 W. 7 Mile Rd., Detroit 35

Kapetansky, A. J.....1728 Clairmount, Detroit 6
Kapetansky, Nathan J.....1728 Clairmount, Detroit 6
Kaplita, Walter A.....60 Fontana Lane, Grosse Pointe Shores
Karch, Saul.....18080 Muirland, Detroit 21
Katz, Martin.....7300 Harding, Taylor
Kasabach, Harry Y.....1553 Woodward Ave., Detroit 26
Kasabach, Vahram Y.....523 Book Tower, Detroit 26
Kashtan, Harry A.....17300 Schaefer, Detroit 35
Kasper, Jos. A.....19953 Clairview Ct., Detroit 36
Kaspor, Albert J.....20901 Moross Rd., Detroit 36
Kass, Arnold.....1316 David Stott Bldg., Detroit 26
Katz, Lawrence.....987 E. Jefferson, Detroit 7
Katzman, Irving S.....412 Fox Bldg., Detroit 1
Kaufman, Jacob M.....618 David Whitney Bldg., Detroit 26
Kaufman, Louis W.....10326 W. 7 Mile, Detroit 21
Kaump, Donald H.....2500 W. Grand Blvd., Detroit 8
Kauppinen, Jalo A.....15400 Plymouth Rd., Detroit 27
Kawchak, James.....Ford Motor Co., Dearborn
Kawecki, Lucian.....10734 Hart Ave., Huntington Woods
Kawel, Conrad A., Jr.....27459 W. Warren, Garden City
Kazdan, Morris.....4619 Allen Road, Allen Park
Keating, Thos. F. (L).....20936 W. Grand River Ave., Detroit 19
Kehoe, Henry J.....15252 Gratiot Ave., Detroit 5
Keim, Harther L.....10 Witherell St., Detroit 26
Keith, Kelly.....106 W. Davison Ave., Highland Park 3
Keith, Rachel H. C. B.....8942 Dexter, Detroit 6
Kelley, Frank J.....3919 John R St., Detroit 1
Kelly, A. P., Jr.....Henry Ford Hosp., Detroit 2
Kelly, Edward W., Jr.....156 Harmon St., Detroit 2
Kelly, James E.....Henry Ford Hosp., Detroit 2
Kelly, John J.....21124 Goddard Rd., Dearborn
Kelly, L. J.....14015 Gratiot, Detroit 5
Kelmenson, Victor A.....2035 Glynn Ct., Detroit 6
Kelson, Malcolm J.....1045 Harvard, Detroit 30
Kemler, Walter J.....4045 W. Jefferson Ave., Ecorse 29
Kennary, James M.....4900 Cadieux Rd., Detroit 24
Kennedy, Chas. S. (L).....10 Peterboro St., Detroit 1
Kennedy, Donald J.....1220 Livernois Ave., Detroit 9
Kenning, John C. (A).....1289 Paseo Del Mirodor, Palm Springs, Calif
Kennison, Warren S.....250 Martin, Birmingham
Kernick, Melvin O.....13700 Woodward Ave., Highland Park 3
Kernkamp, Ralph F.....1204 David Broderick Tower, Detroit 26
Kerzman, Jos. H.....850 Maccabees Bldg., Detroit 2
Keshishian, Sarkis K. (L).....13544 Woodward Ave., Highland Park
Kessler, Chas.....15105 W. 7 Mile Rd., Detroit 35
Kettler, Hans J.....22075 Willmarth, Detroit 19
Keyes, Eugene C.....4840 Maple Ave., Dearborn
Keyes, John W.....Henry Ford Hosp., Detroit 2
Killins, Chas. G.....8100 E. Jefferson, Detroit 14
Kimberlin, K. K., Jr.....11110 Morang Drive, Detroit 24
King, Edward D.....270 Rivard Blvd., Grosse Pointe 30
King, Melbourne J.....5435 W. Vernor Hwy., Detroit 9
Kingswood, Roy C.....90 E. Warren Ave., Detroit 1
Kinsley, George.....15105 W. 7 Mile Rd., Detroit 35
Kitzmiller, J. L.....15800 W. McNichols Ave., Detroit 35
Klein, Herman.....24030 Marlow St., Oak Park
Klein, Howard A.....1838 David Whitney Bldg., Detroit 26
Klein, Sander P.....14825 W. McNichols Rd., Detroit 35
Klein, Wm.....12 Het Kiriat Hain, Haifa, Israel
Kleinman, Shmarya.....16861 Wyoming Ave., Detroit 21
Kliger, David.....7756 Southfield, Detroit 28
Klimchuk, M. M.....31225 E. Jefferson, St. Clair Shores
Klokke, Karl.....12200 E. Jefferson, Detroit
Klosowski, Jos.....8222 E. Outer Drive, Detroit 13
Klosterman, Paul F.....2900 W. Grand Blvd., Detroit 2
Klutke, Geo. H. E.....22159 W. Outer Dr., Dearborn
Knaggs, Earl J.....3164 Biddle Ave., Wyandotte
Knapp, Byron S.....10909 Jefferson Ave., River Rouge 18
Knapp, Floyd B. (R).....16565 Birwood, Detroit 27
Knapp, Gordon R.....422 W. Goldengate, Detroit 3
Knapp, Wm. L.....20100 W. McNichols Rd., Detroit 19
Knighton, Robert S.....2799 W. Grand Blvd., Detroit 2
Knobloch, Edmund J.....5933 Chene St., Detroit 11
Knoch, Hubert S.....14149 E. Jefferson Ave., Detroit 15
Knox, Ross M.....9 Salliotte Rd., Ecorse 29
Kobernick, Sidney D.....6767 W. Outer Dr., Detroit 35
Kobiljak, Stefan H.....3516 Fort St., Lincoln Park
Koebel, R. H.....640 Bedford Lane, Grosse Pointe 30
Koerber, Edward J.....4876 Lakeview Ave., Detroit 15
Kogut, Constantine S.....10627 Puritan, Detroit 38
Kokowicz, Raymond J.....19440 Van Dyke, Detroit 34
Kolman, Isadore I.....987 E. Jefferson Ave., Detroit 17
Koos, Laszlo (M).....2nd Field Hosp., APO 407, New York, N. Y.
Kopel, Jos. O. (L).....10 Peterboro St., Detroit 1
Koran, Valentine L.....5057 Woodward Ave., Detroit 2
Koren, Louis.....3825 Brush, Detroit 1
Korum, Lyle W.....18585 E. Warren St., Detroit 36
Koschnitzke, H. K.....1221 Lincoln, Lincoln Park
Kossayda, Adam W.....15324 Michigan Ave., Dearborn
Kovach, Emery P.....14149 E. Jefferson St., Detroit 15
Kovan, Dennis D.....16965 Hamilton Ave., Highland Park 3
Kowaleski, John J.....9646 Vine, Allen Park
Kozlinski, Anthony E.....2195 E. Grand Blvd., Detroit 11
Krabbenhoft, K. L.....3825 Brush St., Detroit 1
Kraft, Ruth M.....655 Hamilton Rd., Birmingham
Krakauer, Bernard..18424 W. McNichols Rd., Detroit 19
Krass, Edward W.....11088 Gratiot Ave., Detroit 13
Kraus, John J.....16840 E. Warren Ave., Detroit 24
Krebs, Wm. T.....16419 E. Warren Ave., Detroit 24
Kreinbring, Geo. E.....14295 E. 7 Mile Rd., Detroit 5
Krenz, Marlin P. (M).....(No Address)
Kretzschmar, John C.....660 E. Grand Blvd., Detroit 7
Krevsky, David A.....8461 Park, Allen Park
Krevsky, Harold.....8461 Park Ave., Allen Park
Krieg, Earl G.....85 Kercheval Ave., Grosse Pte. Farms
Krieger, Harley L. (R).....11390 Strathmoor, Detroit 27
Krieger, Harvey.....954 Fisher Bldg., Detroit 2
Krieger, Ingeborg.....987 E. Jefferson, Detroit 7
Kritchman, Maurice J.....10 Witherell St., Detroit 26
Kroha, Lawrence A.....15124 Kercheval Ave., Detroit 30
Kroll, H. Harvey V.....7815 E. Jefferson, Detroit 14
Krynicki, Francis X...15300 W. McNichols Rd., Detroit 35
Krystal, Henry.....19210 Coyle, Detroit 35
Kubanek, Jos. L.....23134 Myrtle, Dearborn
Kucmierz, Francis S.....18934 Van Dyke Ave., Detroit 34
Kuehn, Ned N.....20243 Burgess Ave., Detroit 19
Kuhn, Albert A.....90 E. Warren Ave., Detroit 1
Kuhn, Chas. P.....951 E. Lafayette, Detroit 7
Kuhn, Richard F.....1700 Junction Ave., Detroit 9
Kujawski, Walter F.....16840 E. Warren, Detroit 24
Kulaski, Chester H.....9309 Joseph Campau, Detroit 12
Kullman, Harold J.....Vets. Adm. Hosp., Dearborn
Kurcz, Jos. A.....7433 Michigan Ave., Detroit 10
Kurtz, Irvin J.....2211 Woodward Ave., Detroit 1
Kutsche, John D.....2142 West Rd., Trenton
Kwasiborski, S. A.....2300 Oak St., Wyandotte
Kyle, Wm. V., Jr.....28763 Michigan Ave., Inkster
Kyprie, H. M.....708 Kales Bldg., Detroit 26

Laberge, James M.....100 Oak, Wyandotte
La Bine, Alfred C.....8-259 Gen'l. Motors Bldg., Detroit 2
Lackey, Lawrence S.....525 Visger, Ecorse
Laderach, David C.....716 Marquette Dr., Detroit 14
La Ferte, Alfred D. (L).....1001 David Whitney Bldg., Detroit 26
Lahood, Michael J...17555 Jas. Couzens Hwy., Detroit 35
Laige, Raymond J.....P.O. Box 1259, Detroit 31
Lakatos, George C.....35166 Michigan Ave., Wayne
Lake, Robt. C.....8445 E. Jefferson, Detroit 14
Lakin, Alan C.....10326 W. 7 Mile Rd., Detroit 21
Lakoff, Chas. B.....10234 W. 7 Mile Rd., Detroit 21
Lam, Conrad R.....28130 Westbrook Ct., Farmington
Lamberson, Frank A.....19001 Grand River, Detroit 23
Lammy, James V.....776 Maccabees Bldg., Detroit 2
Lampman, Harold H.....3011 W. Grand Blvd., Detroit 2

Landers, James W.....1401 Rivard, Detroit 7
Landers, Maurice B.....275 W. Grand Blvd., Detroit 16
Lang, Ernst F.....Harper Hospital, Detroit 1
Lange, Wm. A.....3919 John R St., Detroit 1
Langston, John D.....1420 St. Antoine St., Detroit 26
Laning, Geo. M. (L).....Ellsworth Hill, Sharon, Conn.
Lansky, Mandell.....16339 E. Warren, Detroit 24
Large, Alfred M.....1553 Woodward Ave., Detroit 26
Largo, Donald J.....16717 Warwick, Detroit 19
Larkin, Duane R.....28435 Plymouth, Livonia
Larned, Richard I.....15208 Bringard, Detroit 5
Larsen, Robt. D.....76 W. Adams Ave., Detroit 26
Larson, Chas. J.....12820 Ward St., Wyandotte
Larson, Francine S. (A).....12820 Ward St., Wyandotte
Larsson, Bror H. (L).....3919 John R St., Detroit 1
Lasichak, Andrew G.....76 W. Adams Ave., Detroit 26
Lasley, James W.....5057 Woodward Ave., Detroit 2
Lathrop, Philip L. (A).....113 W. Main, Clarinda, Iowa
Latimer, Fredk. R.....28 W. Adams, Detroit 26
Latteier, Karl K.....968 Yarmouth, Birmingham
Lauppe, Edward H.....1553 Woodward Ave., Detroit 26
Lauppe, Fredk. A.....1553 Woodward Ave., Detroit 26
Laura, Albert L.....9105 Harrison, Livonia
Laurisin, Eugene.....16554 Muirland, Detroit 21
Lawhead, Nixon R.....7348 Kercheval Ave., Detroit 14
Lawrence, Louis F.....17300 Schaefer Rd., Detroit 35
Lawson, James M.....2605 W. Grand Blvd., Detroit 8
Lawson, John W. (A).....98 Hazelwood Ave., Detroit 2
Lazar, Morton R.....7401 Third Ave., Detroit 2
Leach, David.....3011 W. Grand Blvd., Detroit 2
Leacock, Robt. C.....440 University Pl., Grosse Pointe 30
Leader, Luther R.....1553 Woodward Ave., Detroit 26
Leaver, L. Ross.....757 Lakewood Ave., Detroit 15
Lebamoff, Alexander T.....7940 Allen Rd., Allen Park
Lechner, Monroe S.....15074 Houston Ave., Detroit
Lecklider, A. F. (R)....848 Berkshire Rd., Grosse Pte. 30
Lee, Frank.....12315 Broadstreet, Detroit 4
Lee, Harry E.....13616 Gratiot Ave., Detroit 5
LeGallee, George M. (A).....17532 Cornell, Detroit 35
Lehmann, Robert N.....26029 W. 5 Mile Rd., Detroit 39
Leipsitz, Louis S.....3566 Cass Ave., Detroit 1
Leiter, Forrest C.....2355 Monroe, Dearborn
Leithauser, Daniel J. (L).....18412 Mack, Detroit 36
Leland, Solomon.....6563 Grand River, Detroit 8
Lemley, Clark F.....3011 W. Grand Blvd., Detroit 2
Lemmer, John A.....9300 Mack Ave., Detroit 14
Lemmon, Chas. E. (L).....1337 David Whitney Bldg., Detroit 26
Lemon, Bruce K.....8259 Meyers Rd., Detroit 28
Lentine, James J.....15831 Mack Ave., Detroit 24
Lenz, Willard R.....418 Moran Rd., Detroit 36
Lepard, Cecil W.....1553 Woodward Ave., Detroit 26
Lepley, Fred O.....1125 3 Mile Dr., Detroit 30
Lerman, Samuel I.....4400 Livernois St., Detroit 10
Lerner, Leonard H.....7310 W. 7 Mile Rd., Detroit 21
Lesesne, John M.....17700 Mack Ave., Grosse Pte. 24
Leslie, C. G.....4839 Beaubien, Detroit 1
L'Esperance, Simon P. (R)..Rte. 3, Woodslee, Ont., Can.
Lessem, David.....12759 Vernon, Huntington Woods
Leszynski, Jos. S.....10 Peterboro St., Detroit 1
Leucutia, Traian.....10 Peterboro, Detroit 1
Levagood, Floyd B.....14056 Artesian, Detroit 23
Levant, Arthur B.....15715 E. Warren, Detroit 24
Levenson, Malcolm L.....24554 Rensselaer, Oak Park 37
Leventer, Ira.....8844 Joy Rd., Detroit 4
Levin, David M.....15121 W. McNichols Rd., Detroit 35
Levin, Herbert G.....17300 Schaefer, Detroit 35
Levin, Samuel J.....3011 W. Grand Blvd., Detroit 2
Levine, Edward E.....12891 Sherwood, Huntington Woods
Levine, Sydney S.....8233 W. Chicago Blvd., Detroit 4
Levitan, Seymour.....987 E. Jefferson, Detroit 7
Levitt, Irving.....19214 Santa Barbara, Detroit 21
Levitt, Nathan.....607 Kales Bldg., Detroit 26
Levy, David B.....17320 Livernois, Detroit 21
Levy, Elizabeth H. (A)..8350 Van Zandt, Drayton Plains
Levy, Marshall S.....7441 W. 7 Mile Rd., Detroit 35
Levy, Marvin B.....23200 Woodward Ave., Ferndale
Levy, Stanley H.....7441 W. 7 Mile Rd., Detroit 21
Lewin, Harry.....2457 Woodward Ave., Detroit 1
Lewis, Benjamin M.....1401 Rivard, Detroit 7
Lewis, Chas. T.....5050 Joy Rd., Detroit 4
Lewis, J. Hugh.....2956 Biddle Ave., Wyandotte
Lewis, Lee A.....2730 E. Jefferson Ave., Detroit 7
Lewis, Robt. H.....14807 W. McNichols, Detroit 35
Lewis, Wilfrid J.....10 Peterboro St., Detroit 1
Libbrecht, Robt. V.....6540 Park Ave., Allen Park
Lichter, Max L.....2900 Oakwood Blvd., Melvindale
Liddicoat, Arthur G.....20125 Fenkell, Detroit 23
Lieberman, Barnard L...19212 Woodward Ave., Detroit 3
Lightbody, James J.....1553 Woodward Ave., Detroit 26
Lignell, Rudolph W.....14200 Puritan, Detroit 27
Lilly, Chas. J.....2950 Puritan Ave., Detroit 38
Lilly, Robert P.....1129 David Whitney Bldg., Detroit 26
Lincoln, Abraham R. (A).....1337 Lakewood, Detroit 15
Lindner, David W...801 David Whitney Bldg., Detroit 26
Linkner, Laurence M.....966 Fisher Bldg., Detroit 2
Linkner, Leonard S.....12944 LaSalle Lane, Huntington Woods
Lipinski, Stanley L.....7540 Michigan Ave., Detroit 10
Lipkin, Ezra.....5715 Michigan Ave., Detroit 10
Lipnik, Carl E.....31610 Plymouth Rd., Livonia
Lipnik, Morris J.....15101 W. 7 Mile Rd., Detroit 35
Lipschutz, Louis S.....19750 Chesterfield Rd., Detroit 21
Lipson, Channing T...18700 Woodingham Dr., Detroit 21
Lipton, Raymond F.....10 Peterboro St., Detroit 1
Litsky, Abraham D.....1183 E. Grand Blvd., Detroit 11
Little, James W.....3855 Shallow Brook, Bloomfield Hills
Livingood, Clarence S.....2950 Iroquois, Detroit 14
Lockhart, Edward C.....5005 Tireman, Detroit 4
Lockwood, Bruce C. (R).....1553 Woodward Ave., Detroit 26
Lofstrom, James E.....1420 St. Antoine St., Detroit 26
Logrippo, Annie B.....Henry Ford Hosp., Detroit 2
Long, Earl C.....13995 Rutland Ave., Detroit 27
Long, John J.....12421 Monica St., Detroit 4
Longo, Salvatore.....468 Cadieux, Detroit 30
Lookanoff, Victor A...369 Glendale Ave., Highland Park 3
Loranger, C. B. P.....20825 Mack, Detroit 36
Loranger, Guy L.....34 Moross Rd., Detroit 36
Lorber, Jos. H.....16558 North Lawn, Detroit 21
Lorentzen, Edwin H...11702 Grand River Ave., Detroit 4
Lovas, Wm. S.....6354 W. Fort St., Detroit 9
Love, Donald M.....16645 Freeland, Detroit 35
Love, W. Thos.....231 E. Warren Ave., Detroit 1
Lowe, Adolf W.....3338 W. Davison Ave., Detroit 38
Lowe, Townsend G.....218 Kirby, Detroit 2
Lowinger, Paul L.....951 E. Lafayette, Detroit 7
Lowrie, Wm. L.....2799 W. Grand Blvd., Detroit 2
Lublin, Ann.....15041 E. 7 Mile Rd., Detroit 5
Luby, Elliot D.....20138 Warrington, Detroit 21
Lui, Alfred H. F.....Wayne County Gen. Hosp., Eloise
Lukas, John R.....19212 West Warren, Detroit 28
Lumpkin, John G., Jr.....243 E. Warren Ave., Detroit 1
Lutz, Earl F.....3044 W. Grand Blvd., Detroit 2
Lutz, Sherwin J.....19355 Wisconsin Ave., Detroit 21
Luzadre, John H.....18430 Mack Ave., Detroit 36
Lynn, David H.....Lynn Hospital, Lincoln Park
Lynn, Harvey D.....22159 W. Outer Dr., Dearborn
Lytle, Robt. P.....10 Peterboro St., Detroit 1

Maben, Hayward C., Jr. (A)..338 22nd Ave. N., Apt. 3, Nashville 8, Tenn.
Mabley, John D.....1037 David Whitney, Detroit 26
MacCraken, F. L. (A).....16753 St. Mary's, Detroit 35
MacGregor, Wm. W. (L).....6320 W. Surrey St., Birmingham
MacDougall, Orrin P.....13700 Woodward Ave., Detroit 3
Macfarlane, Howard W...1553 Woodward Ave., Detroit 26
Mack, Harold C.....3011 W. Grand Blvd., Detroit 2
Sarnia, Ontario, Canada
MacKenzie, Earle D.....81 E. Kirby St., Detroit 2
MacKenzie, Frank M.....1464 Lakeshore Rd., Sarnia, Ontario, Canada
MacKenzie, John W.....289 Rivard Blvd., Grosse Pointe 30
Mackersie, Wm. G.....18205 Roselawn Ave., Detroit 21

MacLeod, Chas. W.....16116 W. McNichols, Detroit 35
Macmillan, Francis B...1553 Woodward Ave., Detroit 26
MacPherson, K. C.....8100 E. Jefferson, Detroit 14
MacQueen, Malcolm D...660 Woodward Ave., Detroit 26
Maczewski, John E.....9535 Jos. Campau Ave., Hamtramck 12
Mader, Ivan J.....Wayne State Univ., Detroit 7
Magnell, Ralph C.....8825 Puritan Ave., Detroit 38
Maguire, Clarence E.....1553 Woodward Ave., Detroit 26
Mahlin, Murray S.....16820 Greenfield Ave., Detroit 35
Mahoney, Hugh M.....1553 Woodward Ave., Detroit 26
Mahoney, Wm. F. (A).....18242 Snow Rd., Dearborn
Maibauer, Fredk. P.....2966 Biddle Ave., Wyandotte
Mainwaring, Rosser L.....1910 Russell, Dearborn
Maire, Edward D.....15224 E. Jefferson, Detroit 30
Maitland, Ruth J.....Mich. Bell Telephone, Detroit 26
Majauskas, V. E.....5703 Vernor, Detroit 9
Majzoub, Ahmad J.....3334 Fort, Lincoln Park
Malina, Stephen.....1601 Kirkway Dr., R. 3, Bloomfield Hills
Malje, Frank J.....Garden City Clinic, Garden City
Malone, John M.....20446 Freeland Ave., Detroit 35
Maloney, John A.....670 Maccabees Bldg., Detroit 2
Maltzer, Jos. H.....950 E. State Fair, Detroit 3
Mandiberg, Jack N.....12700 W. 7 Mile Rd., Detroit 35
Mann, Andrew D.....20901 Moross, Detroit 36
Mannausa, L. R. (A).....18666 Appoline, Detroit 35
Manning, Morey H.....950 E. State Fair Ave., Detroit 3
Mapletoft, Kenneth E.....420 Mohawk, Dearborn
Marcus, Edwin L.....1221 Lincoln, Lincoln Park
Marecki, Vincent J.....10326 W. Warren, Dearborn
Margules, Saul Z.....12408 Van Dyke, Detroit 34
Marinus, Carleton J.....1553 Woodward Ave., Detroit 26
Mark, Jerome.....Kales Building, Detroit 26
Markey, Alexander P.....14853 Michigan Ave., Dearborn
Markey, Frank R.....17174 Fairfield, Detroit 21
Markoe, Rupert C. L.....4102 Brush St., Detroit 1
Marks, Ben.....232 W. Grand River Ave., Detroit 26
Marks, Bert W.....8250 Lincoln Dr., Huntington Woods
Marsh, Alton R.....15696 Woodland Dr., Dearborn
Marshall, James R.....14827 E. Jefferson Ave., Detroit 15
Marshall, J. R., Jr.....20160 Mack Ave., Detroit 36
Martin, Elbert A. (L)..1553 Woodward Ave., Detroit 26
Martin, J. B., Jr.....449 E. Elizabeth St., Detroit 1
Martin, Lyndle R.....2000 Second Blvd., Detroit 26
Martin, Marion T.....6620 W. Fort St., Detroit 9
Martin, Peter A.....17185 Muirland, Detroit 21
Martin, Wilbur C.....7440 W. Jefferson St., Detroit 17
Martineau, Perry C.....16709 Glastonbury, Detroit 19
Martinez, Pedro O.....1439 Bagley Ave., Detroit 16
Martmer, Edgar E.....693 Washington Rd., Grosse Pte. 30
Marwil, Thos. B.....16965 Hamilton St., Detroit 3
Mateer, John G.....Henry Ford Hosp., Detroit 2
Matthews, Burton V.....13724 W. Fort St., Southgate
Mattman, Paul E.....1500 Seminole, Detroit 14
Mattson, Theodore M.....3919 John R St., Detroit 1
Mauch, Eugene W.....1221 Lincoln, Lincoln Park
Mauthe, Harry G.....9272 Idaho, Livonia
Maxwell, James H.....2415 W. Grand Blvd., Detroit 8
May, Fredk. T.....76 W. Adams Ave., Detroit 26
Maynard, Fredk. M.....14846 Harrison, Allen Park
McAlonan, Wm. T.....10 Peterboro St., Detroit 1
McAlpine, Gordon S.....3011 W. Grand Blvd., Detroit 2
McBryan, Thos. J.....Grace Hospital, Detroit
McCadie, James H.....13700 Woodward Ave., Highland Park 3
McCandless, Virginia.....22276 Garrison, Dearborn
McCaughey, R. S.....Wayne State University, Detroit 7
McClellan, Robt. J.....16345 W. McNichols, Detroit 35
McClelland, Rachel L.....33026 5 Mile Rd., Livonia
McClendon, James J.....503 E. Warren Ave., Detroit 1
McClintock, John J.....16151 Schoolcraft Ave., Detroit 27
McClure, Robt. W.....9111 E. Outer Dr., Detroit 13
McClure, Wm. R. (L).....Box 1498, Boynton Beach, Fla.
McCole, Cornelius E.....Henry Ford Hosp., Detroit 2
McColl, Chas. W.....2025 Ford Ave., Wyandotte
McColl, Clarke M.....2799 W. Grand Blvd., Detroit 2
McColl, Kenneth M.....20250 Mack Ave., Detroit 36
McCollum, E. Bert.....1553 Woodward Ave., Detroit 26
McCord, Carey P. (L)..Sch. of Public Health, Ann Arbor
McCormick, Colin C.....13530 Michigan Ave., Dearborn
McCullough, L. E...521 David Whitney Bldg., Detroit 26
McDonald, Allan W. (L).....15015 Ward, Detroit 27
McDonald, Angus L.....13856 Gratiot Ave., Detroit 5
McDonald, John R.....Harper Hosp., Detroit 6
McDonald, Wm. G.....15600 Michigan Ave., Dearborn
McDowell, Douglas B.....Wayne Co. Gen. Hosp., Eloise
McEvitt, Wm. G.....1140 W. Boston Blvd., Detroit 2
McFadyen, Hugh A. (L).....10 Peterboro St., Detroit 1
McGhee, Richard S.....10015 W. 8 Mile Rd., Detroit 21
McGillicuddy, W. E. (R).....7542 Pinehurst, Dearborn
McGlaughlin, N. D.....2312 Biddle Ave., Wyandotte
McGough, Jos. M.....18716 Grand River, Detroit 23
McGuire, John F.....10 Cherry Hill Ct., Dearborn 7
McHenry, John T.....1401 Rivard St., Detroit 7
McIntosh, Robt. D.....6307 W. Fort St., Detroit 9
McIntyre, Jack B.....2841 Monroe Blvd., Dearborn
McIntyre, Wm. B...1145 David Whitney Bldg., Detroit 26
McKean, G. Thos.....1553 Woodward Ave., Detroit 26
McKean, Richard M.....1553 Woodward Ave., Detroit 26
McKeever, Geo. E.....5237 Oakman Blvd., Dearborn
McKenna, Chas. J.....14618 E. 7 Mile, Detroit 5
McKnight, Robt. E.....10030 W. McNichols, Detroit 21
McLane, Harriet I. E. (L)..4350 Oregon Ave., Detroit 4
McLean, Brita R.....1365 Cass, Detroit 26
McLean, Don W.....1066 Fisher Bldg., Detroit 2
McLean, Donald C.....10 Peterboro, Detroit 1
McNamara, Joseph M.....356 N. Main St., Plymouth
McNeill, Roger F.....119 Kercheval, Grosse Pointe
McNichol, Larry J.....13345 W. McNichols, Detroit 19
McPhee, Roderick T.....987 E. Jefferson, Detroit 7
McPherson, Robt. J.....12626 Meyers Rd., Detroit 27
McQuiggan, Mark R.....700 Seward, Detroit 2
McQuiggan, Thelma H.....1250 Middlebelt Rd., Inkster
Meek, Stuart F.....13020 Kilbourne, Detroit 13
Melander, L. W., Jr.....1229 David Whitney Bldg., Detroit 26
Mellen, Hyman S.....16800 Greenfield, Detroit 35
Mellinger, Raymond C.....959 Pemberton, Grosse Pointe
Melnik, Maxim P.....3011 W. Grand Blvd., Detroit 2
Menagh, Frank R.....4010 Columbus Ave., Detroit 4
Mendelssohn, Reuben J.....14427 Mack Ave., Detroit 15
Mendians, Edgar V.....Chrysler Corp., Detroit 31
Mendoza, Samuel.....6356 Michigan, Detroit
Menton, Norman J.....17201 W. McNichols Rd., Detroit 35
Merkel, Chas. C.....85 Kercheval Ave., Detroit 36
Merkle, Karl.....530 N. Telegraph, Dearborn
Merrill, C. R., Jr.....369 Glendale, Detroit 3
Merritt, Earl G.....10 Peterboro St., Detroit 1
Mersky, Charlotte I. (A)..32215 Queensboro, Farmington
Metes, John S.....1261 Fair Holme Rd., Detroit 36
Metzger, Harry C.....25504 Wareham, Huntington Woods
Meyer, Eugene (A).....2900 S. Fort St., Detroit 17
Meyer, John S.....Wayne State Univ., Detroit 7
Meyer, Kenneth R.....Oakwood Hosp., Dearborn
Meyers, Marjorie P.....5320 John R St., Detroit 2
Meyers, Maurice P.....18984 Livernois, Detroit 21
Meyers, Sidney S.....20861 Mack Ave., Detroit 36
Meyers, Solomon G.....5057 Woodward Ave., Detroit 2
Michael, Michael J.....703 Mutual Bldg., Detroit 26
Mihay, Benjamin.....2021 Monroe, Dearborn
Mikesell, W. B., Jr.....21124 Goddard Rd., Dearborn
Millard, Glenn E.....2900 W. Grand Blvd., Detroit 2
Miller, Daniel H.....8011 W. Vernor Hwy., Detroit 9
Miller, Elmer B.....20 Oxford Rd., Pleasant Ridge
Miller, Jacob J.....20131 James Couzens, Detroit 35
Miller, J. Martin.....2799 W. Grand Blvd., Detroit 2
Miller, Karl L.....1553 Woodward Ave., Detroit 26
Miller, Leroy A. (A).....Woman's Hospital, Detroit
Miller, Michael M.....10514 E. Jefferson Ave., Detroit 14
Miller, Myron H...27330 Southfield Rd., Lathrup Village
Miller, Oscar W...Fleetwood Plant, FBD, GMC, Detroit 9
Miller, Wm. E. (L).....10 Peterboro, Detroit 1
Miller, Thos. H.....1305 David Whitney Bldg., Detroit 26
Miller, Wm. J.....5649 Inkster Rd., Garden City

Mills, Clinton C.....16190 Jas. Couzens Hwy., Detroit 21
Mills, Geo. R.....8209 Allen Rd., Allen Park
Milton, S. Byron.....26560 W. Outer Dr., Lincoln Park
Mintz, Edward I.....7401 Third Ave., Detroit 2
Mintz, Morris J.....16895 Livernois St., Detroit 21
Miral, Solomon P.....4825 E. McNichols Rd., Detroit 12
Mishelevich, Sophie.....4651 E. 9 Mile Rd., Van Dyke
Miskinis, Martyna.....393 W. Grand Blvd., Detroit 16
Missavage, Edward, Jr.....Wayne Co. Gen. Hosp., Eloise
Mitchell, A. W.....12000 Visger, Detroit
Mitchell, C. Leslie.....34 Hendrie Lane, Detroit 36
Mitchell, Darnell P.....7713 Oakland Ave., Detroit 11
Mitchell, Ralston S.....243 E. Warren, Detroit 1
Moehlig, Robt. C.....3001 W. Grand Blvd., Detroit 2
Mogill, Geo.....3150 Second Blvd., Detroit 1
Moisides, Vasil P.....28 W. Adams Ave., Detroit 26
Moll, Clarence D.....10 Peterboro St., Detroit 1
Molnar, Stephen K.....4525 S. Telegraph Rd., Dearborn
Molner, Jos. G.....334 Bates St., Detroit 26
Momcilovich, Boxidar.....2241 Huron River Dr., Rockwood
Mond, Edward.....10 Witherell St., Detroit 26
Monson, Robt. C.....16404 E. Warren Ave., Detroit 24
Montante, Jos. R.....18715 Bretton Dr., Detroit 23
Montgomery, Wm. C.....25717 Coolidge, Oak Park 37
Monto, Raymond W.....Henry Ford Hosp., Detroit 2
Moore, John W., Jr.....8425 W. 8 Mile Rd., Detroit 21
Moore, Warren R.....608 Eastland Professional Bldg., 17800 E. 8 Mile Rd., Detroit 36
Mopper, Coleman.....14633 E. 7 Mile Rd., Detroit 5
Morand, Louis J. (A).....18944 Fairfield, Detroit 21
Morgan, Donald N.....1553 Woodward Ave., Detroit 26
Morgan, Wm. L., Jr.....Henry Ford Hosp., Detroit 2
Moriarty, Geo. J.....3011 W. Grand Blvd., Detroit 2
Morita, Yoshikazu.....1401 Rivard, Detroit 7
Moritz, Henry C.....1553 Woodward Ave., Detroit 26
Morley, Arthur R.....15753 Promenade, Allen Park
Morley, Harold V.....970 Fisher Bldg., Detroit 2
Morley, James A.....10514 Plymouth Ave., Detroit 4
Moroun, Sheffick J.....8045 E. Jefferson Ave., Detroit 14
Morris, Harold L. (L)....3001 W. Grand Blvd., Detroit 2
Morrison, George W.....2033 Park, Detroit 26
Morse, Plinn F. (L).....3825 Brush St., Detroit 1
Morton, David G.....19445 Plymouth, Detroit 28
Morton, John B. (L).....25701 Joy Road, Dearborn 6
Mosee, Wm. J.....9219 Dexter, Detroit 6
Moseley, Fredk. L.....2561 S. Schaefer, Detroit
Mosen, Max M.....8015 Harper Ave., Detroit 13
Moser, Peter F.....26151 Huron River Dr., Flat Rock
Moses, John W.....864 Fisher Bldg., Detroit
Moss, Ervin B.....1907 Pingree Ave., Detroit 6
Moss, Nathan H.....2847 Trumbull, Detroit 16
Moss, Selma S.....18254 Livernois Ave., Detroit 21
Mossman, John D.....18914 Warrington Dr., Detroit 21
Moszczynski, B. J.....1113 David Whitney Bldg., Detroit 26
Mott, Carlin P.....2395 W. Grand Blvd., Detroit 8
Mott, Fredk. D.....6533 E. Jefferson, Detroit 7
Mucasey, John.....21415 W. 8 Mile Rd., Detroit 19
Muirhead, Ernest E.....432 E. Hancock, Detroit 1
Mullen, Jos. R.....19003 Ecorse Rd., Allen Park
Munson, Henry T.....18350 Mack, Grosse Pointe 36
Murphy, Donald J.....621 Professional Bldg., Detroit 1
Murphy, John M.....60 Lewiston Rd., Detroit 36
Murphy, Scipio G.....603 E. Forest, Detroit 1
Murphy, Wm. M.....10500 E. Warren Ave., Detroit 14
Murray, Gordon M.....9901 Whittier, Detroit 24
Murray, Robt. J.....2299 West Rd., Trenton
Murray, Thos. H...19345 W. McNichols Ave., Detroit 19
Murray, Wm. A.....11841 Ohio Ave., Detroit 4
Muske, Paul H.....5605 Michigan Ave., Detroit 10
Myers, Daniel W.....1150 Bedford Rd., Detroit 30

Nagle, John W.....114 Maple St., Wyandotte
Nahigian, Russell.....17371 Annchester Ave., Detroit 19
Nahoum, Antoine.....1030 Kensington, Detroit 30
Naud, Henry J.....18456 Grand River Ave., Detroit 23
Navori, Cornelius A.....3516 Fort St., Lincoln Park
Naylor, Arthur H.....10033 Tireman, Dearborn
Neeb, Walter G.....16840 E. Warren St., Detroit 24
Nehra, John M.....18514 Mack Ave., Detroit 36
Neill, Edwin J.....8045 E. Jefferson St., Detroit 14
Nelson, Darwin M.....63 Ridge Rd., Detroit 36
Nelson, Harry M.....3001 W. Grand Blvd., Detroit 2
Nelson, Norman A.....Wayne Co. Gen. Hosp., Eloise
Nelson, Victor E.....3025 Crooks Rd., Royal Oak
Newby, Burns G.....1104 Maccabees Bldg., Detroit 2
Newman, Ernest.....17371 Evergreen St., Detroit 19
Newman, Geo. F.....2021 Monroe Blvd., Dearborn
Newman, Max K.....16861 Wyoming Ave., Detroit 21
Nickel, Warren O.....861 Monroe, Dearborn 8
Nickels, Albert W.....3011 W. Grand Blvd., Detroit 2
Nielsen, Aage E.....320 Professional Bldg., Detroit 1
Nielsen, Donald R.....18629 Sorrento, Detroit 35
Nigro, Norman D.....10 Peterboro St., Detroit 1
Nill, John B.....15001 E. Warren, Detroit 24
Nill, Wm. F.....15001 E. Warren, Detroit 24
Noble, Wm. C.....4045 W. Jefferson, Ecorse 29
Noe, Jos. T., Jr.....Wyandotte Chem. Corp., Wyandotte
Nolan, Bernard E.....5460 Schaefer Rd., Dearborn
Nolting, Wilfred S. H...15850 E. Warren Ave., Detroit 24
Northcross, David C.....668 Winder St., Detroit 1
Norton, Arthur B.....5057 Woodward Ave., Detroit 2
Norton, Chas. S. (L).....27992 6 Mile Rd., Livonia
Noshay, Wm. C.....2799 W. Grand Blvd., Detroit 2
Novack, Richard L. (A)..9928 Farmington Rd., Livonia
Novy, Robt. L.....858 Fisher Bldg., Detroit 2
Nunn, James W.....106 W. Davison, Detroit 3
Nyboer, Jan (A).....3825 Brush St., Detroit 1

O'Brien, Geo. M.....2501 W. Grand Blvd., Detroit 8
Obushkevich, Leon S.....15720 W. Warren, Detroit 28
O'Connor, Katheryn L.....17711 Schoolcraft, Detroit 27
O'Donnell, Dayton H.....2501 W. Grand Blvd., Detroit 8
O'Donnell, Wm. S.....Wayne Co. Gen. Hosp., Eloise
Oetting, Edward M.....2923 Iroquois Ave., Detroit 14
O'Hare, Wm. J.....24616 Winona, Dearborn 7
Ohmart, Galen B.....8721 E. Jefferson Ave., Detroit 14
Ohrt, Harold F. (A).....285 E. Grand Blvd., Detroit 7
Okun, Milton H.....3261 Sherbourne Rd., Detroit 21
Olejniczak, Stanley.....Wayne Co. Gen. Hosp., Eloise
Olen, Alex.....13100 Harper Ave., Detroit 13
O'Linn, Francis P.....1055 Fisher Bldg., Detroit 2
Olmsted, Geo. S...27305 Southfield Rd., Lathrup Village
Olson, Avis M.....Mt. Carmel Mercy Hosp., Detroit 35
Olson, James A.....28 W. Adams Ave., Detroit 26
Oman, Cyrus F.....12608 Wyoming Ave., Detroit 38
Oppenheim, Jos. M.....3011 W. Grand Blvd., Detroit 2
Orecklin, Leo.....5057 Woodward Ave., Detroit 2
Organ, Fred W. (L)....10304 Woodward Ave., Detroit 2
Ormond, Robt. S.....1951 Monroe St., Dearborn
Ornstein, Chas.....19504 Kelly, Detroit 36
O'Rourke, Paul V.....17725 Manderson Rd., Detroit 3
O'Rourke, Randall M.....7384 12th St., Detroit 6
Osius, Eugene A.....1553 Woodward Ave., Detroit 26
O'Sullivan, Girardin S.....18129 Sunnybrook Ave., Lathrup Village
Otlewski, Eugene A.....19647 Joy Rd., Detroit 28
Ottaway, John P.....18226 Mack Ave., Grosse Pte. Farms
Owen, Clarence I.....1544 Vinewood Ave., Detroit 16

Palmer, Alice E.....3919 John R St., Detroit 1
Palmer, Milton R.....7624 Dexter Blvd., Detroit 6
Palmisano, I. J.....25447 Plymouth Rd., Detroit 39
Pangburn, Leon E. (L).....12897 Woodward, Detroit 3
Panic, Stephen M.....1001 W. 7 Mile, Detroit 3
Parcells, Frank H.....1014 Buckingham, Grosse Pointe 30
Park, Chas. W.....8414 Salem Lane, Dearborn
Parker, Albert R.....3720 Washington St., Wayne
Parker, Benj. R.....19149 W. 7 Mile Rd., Detroit 19
Parnell, John W.....21 Whitcomb Dr., Grosse Pte. Farms
Parr, Robt. W.....8-265 Gen. Motors Bldg., Detroit 2
Parrish, Rufus H.....2610 Starlevant, Detroit
Pasternacki, N. T.....6203 Chene St., Detroit 11

Pastorius, Melvin K. (A).....25737 Fortuna, Roseville
Paul, Lloyd J.....25321 Fenkell, Detroit 39
Pawlowski, Jerome I.....2009 E. Grand Blvd., Detroit 11
Payne, Eugene H.....656 Van Dyke St., Detroit 14
Payne, Walter A., Jr.....357 Hillcrest, Grosse Pointe 36
Paysner, Harry A.....13700 Woodward Ave., Highland Park 3
Peabody, Chas. W. (R).....25 Riverside Dr., Barrington, R. I.
Pearce, Arthur J.....15317 Piedmont St., Detroit 23
Pearlman, Jack.....25860 Concord, Huntington Woods
Pearse, Harry A.....3001 W. Grand Blvd., Detroit 2
Peat, Alexander C.....1350 Devonshire Rd., Grosse Pointe Park
Pedersen, Herbert E.....381 Golfcrest Dr., Dearborn
Peggs, Geo. F.....5419 Livernois Ave., Detroit 10
Pendy, Geo. V.....1001 David Whitney Bldg., Detroit 26
Pendy, John M.....1001 David Whitney Bldg., Detroit 26
Penner, David A. (A).....Receiving Hosp., Detroit 26
Pensler, Leslie.....8844 Joy Rd., Detroit 4
Pensler, Meyer.....8844 Joy Rd., Detroit 4
Percy, Donald F.....17320 W. McNichols, Detroit 35
Perdue, Grace M.....3011 W. Grand Blvd., Detroit 2
Perkin, Frank S.....3011 W. Grand Blvd., Detroit 2
Perlis, Hyman L.....5057 Woodward Ave., Detroit 2
Perlis, Marvin S.....952 Maccabees Bldg., Detroit 2
Perrin, Eugene V. (A).....4305 Russell Ave., Mt. Rainier, Md.
Peterman, Earl A.....13700 Woodward, Highland Park 3
Peters, Wm. R.....12400 E. 7 Mile Rd., Detroit 5
Peterson, Gustav.....2860 Clark Ave., Detroit 32
Peterson, Robert A. (A).....17581 Prest, Detroit 35
Petix, Samuel C.....19207 Schaefer, Detroit 35
Petoskey, Edward A.....7321 Whittaker, Detroit 9
Petrick, Thos. J.....1221 Lincoln Rd., Lincoln Park
Petrini, Mario A.....1067 Fisher Bldg., Detroit 2
Petty, Thos. A.....1204 Yorkshire Rd., Detroit 30
Pevin, Pauline.....18709 Meyers Rd., Detroit 35
Peven, Philip S.....18709 Meyers Rd., Detroit 35
Pfeiffer, Rudolph L. (L)....469 E. Grand Blvd., Detroit 7
Picard, Jos. D.....5237 Oakman Blvd., Dearborn
Piccone, Louisa I.....17700 W. Warren, Detroit 28
Pichette, J. Walton.....15112 Michigan Ave., Dearborn
Pickard, Orlando W.....14300 W. McNichols, Detroit 35
Pierce, James M., Jr.....Wayne State Univ., Detroit 7
Pierson, Max J.....10040 Yellowstone, Detroit 4
Pietra, A. W.....10338 Joseph Campau, Detroit 12
Piggott, Leonard R. (M)..20250 Glastonbury, Detroit 19
Pinckard, Karl G.....932 Mason St., Dearborn
Pink, Rose M.....11413 Joseph Campau, Detroit 12
Pinney, Lyman J. (L).....28 W. Adams, Detroit 26
Pino, Ralph H.....48151 W. Ann Arbor Rd., Plymouth
Piper, Ralph R.....1495 McKinstry, Detroit 9
Pittman, John E.....1553 Woodward Ave., Detroit 26
Platz, Carol K.....612 Eastland Center Prof. Bldg., Detroit 36
Plavnick, Herman M.....13300 Fenkell, Detroit 27
Pliskow, Harold.....10730 W. 7 Mile Rd., Detroit 21
Plotnick, Harold.....17554 Indiana, Detroit 21
Plous, Eugene I.....1030 Fisher Bldg., Detroit 2
Podolsky, Harold M.....3755 Fort, Lincoln Park
Polentz, Chas. P.....Medical Concourse Northland Center, Southfield
Polk, John E.....8742 12th St., Detroit 6
Pollack, Jerome L.....29000 S. Fort St., Detroit 17
Pollack, John J.....18200 Wyoming, Detroit 21
Pollard, R. J.....Grace Hospital, Detroit 1
Pollens, Louis S.....12730 W. McNichols Rd., Detroit 35
Pollina, Clement J.....21503 Harper, St. Clair Shores
Ponka, Jos. L.....2799 W. Grand Blvd., Detroit 2
Pool, Walter D.....20901 Moross Blvd., Detroit 36
Poos, Edgar E.....3001 W. Grand Blvd., Detroit 2
Porretta, Anthony C.....11146 Gratiot, Detroit 13
Porretta, Chas. A.....3919 John R St., Detroit 1
Porretta, Francis S.....8156 Normile Ave., Detroit 4
Porter, Fredk. G.....27459 5 Mile Rd., Livonia
Porter, Howard J.....36911 Goddard Road, Romulus
Portnoy, Harry.....4253 Leslie, Detroit 38
Posch, Jos. L.....1410 Kales Bldg., Detroit 26
Posner, Irving.....18111 Muirland Ave., Detroit 21
Potts, Elihue B.....8943 12th St., Detroit 6
Pratt, Jean P. (L).....18910 Fairway Dr., Detroit 21
Pratt, Lawrence A.....15621 Windmill Pointe Dr., Grosse Pointe Park
Preston, C. W.....4602 Brush St., Detroit 1
Preston, Ruth E.....3011 W. Grand Blvd., Detroit 2
Pribor, Hugo C.....Bon Secours Hosp., Detroit 30
Price, A. Hazen.....62 West Kirby, Detroit 2
Price, Alvin E.....1553 Woodward Ave., Detroit 26
Priest, Robt. J.....Henry Ford Hosp., Detroit 2
Primack, Marvin H.....1116 Maccabees Bldg., Detroit 2
Prince, Addison E.....8942 Dexter, Detroit 6
Prisbe, Edward J.....16603 Plymouth Rd., Detroit 27
Priver, Julien.....6741 W. Outer Dr., Detroit 35
Procailo, Alexander B.....29901 Ford Rd., Garden City
Proctor, Bruce.....1553 Woodward Ave., Detroit 26
Prokop, Frank P.....7517 Appoline, Dearborn
Prokopovich, V.....6438 Van Dyke, Detroit 13
Proud, Robert H.....26151 Huron River Dr., Flat Rock
Proud, Russell F.....26151 Huron River Dr., Flat Rock
Prust, Frank W.....1536 David Whitney Bldg., Detroit 26
Pugh, Howard C.....1553 Woodward Ave., Detroit 26
Pugliesi, Benedetto.....9489 E. Outer Dr., Detroit 13
Purcell, Frank H.....10 Witherell St., Detroit 26
Puro, Henry E.....2900 S. Fort St., Detroit 17
Purves, W. L.....500 Griswold St., Detroit 26

Quigley, Eugene H.....545 N. Waverly, Dearborn
Quigley, Wm. G.....742 Maccabees Bldg., Detroit 2
Quinn, Edward L.....1141 Golfview, Birmingham

Rabe, Robert E.....1072 Maccabees Bldg., Detroit 2
Rabinovitch, Bella M.....20133 Marlowe, Detroit 35
Raby, Naim M.....215 St. Joseph, Trenton
Rachmaninoff, N.....Harper Hospital, Detroit 1
Ragins, Abner I. (A).....14071 Cloverdale, Oak Park 37
Rahm, Lambert P.....14411 E. Jefferson Ave., Detroit 15
Raiford, Frank P.....681 E. Vernor Hwy., Detroit 1
Raiford, Frank P., Jr.....681 E. Vernor Hwy., Detroit 1
Raizin, L. H.....25115 Ridge Cliff Dr., Southfield
Ramsey, Robt. H.....310 River Lane, Dearborn
Randall, David S.....1765 W. Fort St., Lincoln Park
Rapp, Seymour L.....5055 W. Outer Dr., Detroit 35
Raskin, Herbert A.....18510 Meyers Rd., Detroit 35
Raskin, Morris.....987 E. Jefferson, Detroit 7
Rastello, Peter B.....30001 Van Dyke, Warren
Rattner, Wm. H.....966 Fisher Bldg., Detroit 2
Rau, Fredk. W.....215 Professional Bldg., Detroit 1
Raven, Clara.....400 E. Lafayette, Detroit 26
Ravitz, Louis A.....12831 Burton Ave., Oak Park 37
Ray, Kenneth J.....28059 Elba Dr., Grosse Isle
Raynor, Harold F.....49 Virginia Park, Detroit 2
Rebuck, John W.....2799 W. Grand Blvd., Detroit 2
Redding, Lowell G.....1336 Southfield Rd., Lincoln Park
Reder, Benjamin.....17301 W. 8 Mile Rd., Detroit 35
Redfern, W. Earl.....17392 Kirkshire St., Birmingham
Reed, Harry W.....8141 Dexter Blvd., Detroit 6
Reed, Ivor E.....1553 Woodward Ave., Detroit 26
Reed, Joseph O., Jr.....448 Lincoln, Detroit 30
Rees, Howard C.....15700 Mack Ave., Detroit 24
Reid, John G.....1553 Woodward Ave., Detroit 26
Reid, Wesley G.....3001 W. Grand Blvd., Detroit 2
Reiff, Morris V.....10241 Joy Rd., Detroit 4
Reinbolt, Chas. A. (L).....33570 Quaker Valley Rd., Farmington
Reiners, Charles R.....18635 Gainsborough, Detroit 23
Reinsh, Ernest R.....18674 Muirland Ave., Detroit 21
Reisig, Robert O.....93 Kercheval, Detroit 36
Reisman, Nathan J...15344 W. McNichols Rd., Detroit 35
Reisman, Samuel G.....1078 Maccabees Bldg., Detroit 2
Reive, David L. E.....24401 Plymouth St., Detroit 39
Remski, James E.....29447 Ravine Dr., Livonia
Rennel, Leo P.....2567 W. Grand Blvd., Detroit 8
Reno, George L.....970 Fisher Bldg., Detroit 2
Rentenbach, Robt. F.....314 David Whitney Bldg., Detroit
Reveno, Wm. S.....3001 W. Grand Blvd., Detroit 2
Reyner, Clarence E.....10 Peterboro St., Detroit 1

Reynolds, Lawrence.....10 Peterboro, Detroit 1
Reynolds, Robt. M.....856 Fisher Bldg., Detroit 2
Reynolds, Roland P.....17521 Hamilton Rd., Detroit 3
Rezanka, Harold J.....1553 Woodward Ave., Detroit 26
Rhoades, Francis P.....5057 Woodward Ave., Detroit 2
Rice, Harold B.....10 Peterboro St., Detroit 1
Rice, Meshel.....533 Coats Rd., Oxford
Richardson, Allan L. (R).....Naubinway
Rick, Paul J.....12673 Joan, Detroit 5
Riddell Wilfred A.....404 David Whitney Bldg., Detroit 26
Riddle, Charles B.....20945 Kelly Rd., East Detroit
Ridge, Ralph W. (L).....100 Oak St., Wyandotte
Rieckhoff, Geo. G.....14905 E. Jefferson Ave., Detroit 15
Rieden, James A.....18053 Muirland, Detroit 21
Rieger, John B. (L).....746 Pallister, Detroit 2
Rieger, Mary H.....19285 Lucrene Dr., Highland Park
Riethmiller, Robt. E.....12444 E. 7 Mile Rd., Detroit
Rinaldo, Joseph, Jr.....Henry Ford Hosp., Detroit 2
Rinkel, Robert W.....7319 Park Ave., Allen Park
Ritter, George.....28420 Sunset Blvd., Lathrup Village
Rizzo, Paul.....22525 Baseline, St. Clair Shores
Robb, Edward L.....17380 Livernois, Detroit 21
Robb, Herbert F.....381 Main St., Belleville
Robb, Herbert J.....19324 Herrick Ave., Allen Park
Robb, J. Milton (L).....633 David Whitney Bldg., Detroit 26
Roberts, Arthur J.....1310 Warwick Road, Lincoln Park
Roberts, George A.....7220 Gratiot Ave., Detroit 13
Robins, S. Chas.....18963 Jas. Couzens Hwy., Detroit 35
Robinson, Harold A.....10040 Yellowstone, Detroit 4
Robinson, Howard.....953 Fisher Bldg., Detroit 2
Robinson, James H., Jr.....1553 W. Grand Blvd., Detroit 8
Robinson, Remus G.....3751 31st St., Detroit 10
Rodin, Ernst A.....28 W. Adams, Detroit 26
Roeglin, Orville F. F.....4386 Balfour Rd., Detroit 24
Rogers, Aaron Z.....20451 Mack Ave., Detroit 36
Rogers, Geo. E. B.....2108 David Broderick Tower, Detroit 26
Rogers, John T.....16921 Jas. Couzens Hwy., Detroit 35
Rogin, James R.....1150 Griswold St., Detroit 26
Rogoff, Abraham S.....5057 Woodward Ave., Detroit 2
Rohde, Paul C. (L).....12282 E. Outer Dr., Detroit 24
Rom, Jack.....8600 W. McNichols Rd., Detroit 21
Roman, Stanley J.....15020 Michigan Ave., Dearborn
Ronayne, John J., Jr.....16116 W. McNichols Road, Detroit 35
Rosbolt, Oscar P.....8505 Plymouth Road, Detroit 4
Rosefield, John L.....65 W. Hancock, Detroit 1
Rosen, Theodore S.....19340 Monte Vista, Detroit 21
Rosenbaum, Herbert.....19776 Snowden, Detroit 35
Rosenbaum, Jean B.....5854 W. Outer Drive, Detroit 35
Rosenbloom, Alvin B.....17555 Parkside, Detroit 21
Rosenfeld, L. S.....1800 Tuxedo, Detroit 6
Rosenthal, Albert.....27855 Plymouth Rd., Livonia
Rosenthal, Louis H.....15401 W. McNichols, Detroit 35
Rosenthal, Saml.....16350 Hamilton Ave., Detroit 3
Rosenwach, Felix F.....19149 W. 7 Mile Rd., Detroit 19
Rosenzweig, Saul.....2542 W. Boston, Detroit 6
Ross, Charles V.....7740 Da Costa, Detroit 39
Ross, Donald G.....722 Notre Dame Ave., Grosse Pointe 30
Ross, Hyman.....17301 W. 8 Mile Rd., Detroit 35
Rotarius, Edward M.....Parke Davis Co., Detroit 32
Roth, Edward T.....640 E. Grand Blvd., Detroit 7
Roth, Theodore I.....60 W. Hancock Ave., Detroit 1
Rothbart, Harold B.....25717 Coolidge, Oak Park
Rothman, Emil D.....25704 Ivanhoe, Huntington Woods
Rothwell, Walter S.....2900 S. Fort St., Detroit 17
Rottenberg, Coleman M. J.....13419 Fenkell, Detroit 27
Rottenberg, E. N.....20725 W. 7 Mile Rd., Detroit 19
Rottenberg, Leon.....13419 Fenkell Ave., Detroit 27
Rourke, Robt. F.....4350 Haverhill, Detroit 24
Rowda, Michael S.....7 Cambridge, Pleasant Ridge
Rowe, Jos. J., Jr.....401 N. Brady, Dearborn
Royer, Richard R.....18101 E. Warren Ave., Detroit 24
Rubinoff, William.....21415 W. 8 Mile Rd., Detroit 19
Ruble, Paul E.....1139 David Whitney Bldg., Detroit 26
Rucker, Julian J.....668 Farnsworth Ave., Detroit 2
Ruedemann, Albert D.....1553 Woodward Ave., Detroit 26
Ruedemann, Albert D., Jr.....1553 Woodward Ave., Detroit 26
Rueger, Milton J.....86 Hall Pl., Detroit 36
Rueger, Ralph C.....9149 E. Jefferson Ave., Detroit 14
Runge, Edward F.....25549 Rouge River Dr., Dearborn
Rupe, Clarence E.....2799 W. Grand Blvd., Detroit 2
Rupp, Jacob R. (L).....8054 W. Fort, Detroit 9
Rupprecht, Emil F.....5525 W. Chicago Blvd., Detroit 4
Rush, Desmond K.....1429 David Whitney Bldg., Detroit 26
Ruskin, Saml. H.....1112 Kales Bldg., Detroit 26
Russell, Henry N., Jr.....1221 Lincoln, Lincoln Park
Rutzen, Arthur C.....3011 W. Grand Blvd., Detroit 2
Ryan, James M.....16888 Greenfield, Detroit 35
Ryan, William D. (R).....P.O. Box 4335 Porter Sta., Detroit 9
Rydzewski, Jos. B.....12170 Joseph Campau Av., Detroit 12

Sack, Anthony G.....2567 W. Grand Blvd., Detroit 8
Sa'Di, Lufti M.....10 Peterboro St., Detroit 1
Sadler, Henry H., Jr.....594 Rivard Blvd., Grosse Pointe 30
Sadzikowski, Jos. T.....1320 N. Denwood, Dearborn
Sage, Bernard A.....1013 Haigh St., Dearborn
Sage, Edward O. (L).....415 Burns Dr., Detroit 14
Sager, Edward L.....13902 Gratiot Ave., Detroit 5
St. Amour, Hector J.....20120 Renfrew, Detroit 21
St. Louis, Rene J. (L).....10909 W. Jefferson Ave., River Rouge 18
Sakorraphos, S. N. (L).....1346 Broadway, Detroit 26
Sakwa, Saul.....19467 Livernois, Detroit 21
Salan, Lacy J.....995 S. Main St., Plymouth
Salchow, Paul T.....Herman Kiefer Hosp., Detroit 2
Sall, Caroline D.....14359 Michigan, Dearborn
Sallee, William T.....33512 W. 5 Mile Rd., Livonia
Saltzstein, Harry C.....850 Whitmore Rd., Detroit 3
Salvaggio, A. T.....1308 Kales Bldg., Detroit 26
Sand, Harry H.....24110 Oxford, Dearborn
Sandberg, Hershel.....16800 Greenfield, Detroit 35
Sander, Frank V., Jr.....344 Glendale Ave., Highland Park 3
Sander, Irvin W.....5050 Cass Ave., Detroit 2
Sanders, Alexander W.....5057 Woodward Ave., Detroit 2
Sanderson, Alvord R. (L).....978 Pemberton Rd., Grosse Pointe 30
Sanderson, Suzanne M. (L).....18520 West 7 Mile Rd., Detroit 19
Sandler, Nathaniel.....76 W. Adams Ave., Detroit 26
Sandweiss, David J.....15201 W. McNichols Rd., Detroit 35
Sapala, M. Andrew.....13021 Mackenzie Ave., Detroit 28
Saraf, Leo B.....14540 E. Warren, Detroit 15
Sargent, Douglas A.....816 Grand Marais, Grosse Pte. Park
Sargent, Richard C.....17357 Fenkell St., Detroit 27
Sargent, William R.....17357 Fenkell St., Detroit 27
Sauk, John J.....302 W. McNichols Rd., Detroit 3
Saulsberry, Guy O.....301 E. Kirby, Detroit 2
Sauter, Simon H. (L).....1082 E. Grand Blvd., Detroit 7
Savignac, Eugene M.....Holy Cross Hosp., Detroit 34
Sawdyke, Daria H.....7012 Mich. Ave., Detroit 10
Scarney, Herman D.....3011 W. Grand Blvd., Detroit 2
Schaefer, H. C.....7815 E. Jefferson, Detroit 14
Schaefer, Robt. L. (A).....76 W. Adams, Detroit 26
Schaefer, Robt. L., Jr.....74 W. Adams, Detroit 26
Schaeffer, J. N.....261 Brady, Detroit 1
Schaeffer, Martin.....18275 Warrington Dr., Detroit 21
Schaffer, Loren W. (R).....6040 Wildrose Lane, Port Huron
Schakne, Norman R.....669 Fisher Bldg., Detroit 2
Scheinberg, S. R.....2240 W. Grand Blvd., Detroit 8
Schane, David A.....17157 Mendota, Detroit 21

Schembeck, Isaac S.....1553 Woodward Ave., Detroit 26
Schiller, Arthur E.....1553 Woodward Ave., Detroit 26
Schillinger, H. K.....4834 Neckel Ave., Dearborn
Schirack, Raymond D. (A).....Luzerne
Schkloven, Norman.....20051 Warrington, Detroit 21
Schlafer, Nathan H.....10 Witherell St., Detroit 26
Schlesinger, Henry.....13534 Woodward Ave., Detroit 3
Schmaltz, John D.....1701 David Whitney Bldg., Detroit 26
Schmidt, Generva F.....1074 Vernier Rd., Detroit 36
Schmidt, Harry E.....24625 Fairmount Rd., Dearborn
Schmidt, Milton R.....2615 W. Jefferson, Trenton
Schmidt, Werner F.....1807 Stroh Bldg., Detroit 26
Schmier, Burton L. (A).....20051 Litchfield, Detroit 21
Schmitt, Norman L.....10127 W. McNichols Rd., Detroit 21
Schneck, Robt. J.....1553 Woodward Ave., Detroit 26
Schneider, Chas. L.....22148 Michigan Ave., Dearborn
Schneider, Curt P.....655 Fisher Bldg., Detroit 2
Schoenfield, Gilbert D.....8830 W. McNichols Rd., Detroit 21
Schooten, Sarah S.....13700 Woodward Ave., Highland Park 3
Schorer, Calvin E.....951 E. Lafayette, Detroit 7
Schroeder, Carlisle F.....26505 E. River Rd., Grosse Ile
Schuchter, S. L.....1800 Tuxedo, Detroit 6
Schuknecht, Harold F.....558 Washington, Grosse Pointe
Schulte, Carl H.....28 W. Adams Ave., Detroit 26
Schultz, Clarence H.....19353 Carlyle St., Dearborn
Schultz, Ernest C.....1553 Woodward Ave., Detroit 26
Schwartz, Benj.....275 W. Grand Blvd., Detroit 16
Schwartz, Harold A.....7605 Puritan Ave., Detroit 38
Schwartz, Louis A.....3011 W. Grand Blvd., Detroit 2
Schwartz, Oscar D.....7421 W. 7 Mile Rd., Detroit 21
Schwartzberg, J. A.....19445 Plymouth, Detroit 28
Schwarz, Frank W.....7815 E. Jefferson, Detroit 14
Schweigert, C. F.....10627 Cadieux Rd., Detroit 24
Schwimmer, Benjamin.....660 Clinton St., Detroit 26
Schwocho, Niles H.....7106 Park Ave., Allen Park
Sciarrino, Stanley V.....15388 Livernois Ave., Detroit 38
Scott, Marrion U.....20170 Mack Ave., Detroit 36
Scott, Robert J.....7333 W. 7 Mile Road, Detroit 21
Scott, Wm. J.....20170 Mack Ave., Grosse Pte. Woods
Screen, Raymond J.....3160 Second Blvd., Detroit 1
Seabrooks, Benj. F., Jr.....9136 Oakland Ave., Detroit 11
Secord, Eugene W. (A).....18980 Wyoming, Detroit 21
Seeley, Ward F. (L)....1807 D. Whitney Bldg., Detroit 26
Segal, Andrew E.....3027 David Stott Bldg., Detroit 26
Segar, Laurence F.....10 Witherell St., Detroit 26
Segel, Nathan P.....19100 Manor, Detroit 21
Seibert, Alvin H. (L).....1180 Bedford Rd., Grosse Pt. Pk. 30
Seiferlein, A. L.....1553 Woodward Ave., Detroit 26
Seitam, Karl.....10149 Michigan Ave., Dearborn
Selbst, Ronald A.....1342 Maccabees Bldg., Detroit 2
Self, Wm. G.....20861 Mack Ave., Grosse Pointe 36
Sellers, Chas. W.....18545 Schoolcraft Ave., Detroit 23
Sellers, Graham A.....10535 W. 7 Mile Rd., Detroit 21
Seltzer, Joseph.....18963 James Couzens, Detroit 35
Selzer, Isidore.....4811 John R St., Detroit 1
Sepetys, Povilas.....Herman Kiefer Hosp., Detroit 2
Seski, Arthur G.....863 Fisher Bldg., Detroit 2
Sewell, Geo.....1116 Dav. Whitney Bldg., Detroit 26
Sewell, Guy W.....17751 East Warren Ave., Detroit 24
Shada, John C.....770 Shoreham, Grosse Pte. 36
Shafarman, Eugene M.....5320 John R St., Detroit 2
Shaffer, Jos. H.....2401 Radnor Dr., Birmingham
Shafter, Royce R.....3011 W. Grand Blvd., Detroit 2
Shanoski, Stanley J.....5057 Woodward Ave., Detroit 2
Shapiro, Isadore A.....4400 Livernois St., Detroit 10
Shapiro, Jacob.....15085 E. 7 Mile Rd., Detroit 5
Shapiro, Reuben I.....636 Maccabees Bldg., Detroit 2
Shargel, Geo. M. J.....1800 Tuxedo, Detroit 6
Sharp, Elwood A. (R).....633 Neff Rd., Grosse Pte. 30
Sharpe, Wm. D.....24251 W. McNichols, Detroit 19
Sharrer, Chas. H.....1133 Grayton, Detroit 30
Shekerjian, Armen.....20194 Wakefield, Detroit 21
Shelden, Warren E.....14215 W. McNichols Rd., Detroit 35
Sheldon, John A. (L).....1435 3 Mile Dr., Grosse Pte. Pk. 30
Shelton, Carl F.....952 Dav. Whitney Bldg., Detroit 26
Sheppard, Emma L. W. (R).....314 Main St., Fenton
Sherman, Marvin.....10310 Dartmouth, Oak Park 37
Sherman, Nimrod M.....3413 McDougall, Detroit 7
Sherman, W. LaRue.....10 Peterboro St., Detroit 2
Sherman, Wm. L., Jr. (A).....201 E. Kirby, Detroit 1
Sherrin, Edgar R.....17555 James Couzens, Detroit 35
Shewchuk, A. P.....7300 Allen Rd., Allen Park
Shick, John E.....Henry Ford Hosp., Detroit 2
Shields, Wm. L.....510 Hildale, Detroit 3
Shiffman, Milton M.....Mt. Sinai Hospital, Detroit 35
Shifrin, Peter G.....20211 Greenfield, Detroit 35
Shiovitz, Louis.....5419 Michigan Ave., Detroit 10
Shipton, Waldo H. (A).....General Delivery, Naples, Fla.
Shlain, Benj.....10244 W. 7 Mile Rd., Detroit 21
Shors, Clayton M.....19635 Mack Ave., Detroit 35
Shortz, Gerald (A).....7 Fairlane, Grosse Pointe
Shreve, Alfred J.....10149 Michigan Ave., Dearborn
Shulak, Irving B.....10 Witherell St., Detroit 26
Shufro, Arthur S.....23084 Kipling, Oak Park
Shulman, Herschel A.....5057 Woodward Ave., Detroit 2
Shumaker, Edward J.....17606 Wildemere, Detroit 21
Siefert, Wm. A.....17400 Grand River Ave., Detroit 27
Siddall, Roger S.....3011 W. Grand Blvd., Detroit 2
Sieber, Edward H.....15112 Michigan Ave., Dearborn
Siefert, John L.....12720 E. Outer Dr., Detroit 24
Siegel, Henry.....19720 Chesterfield, Detroit 21
Siero, Jose M.....9105 Van Dyke, Detroit 13
Sievers, Lorraine A.....1457 David Whitney Bg., Detroit 26
Sigler, John W.....1356 Greenlawn Blvd., Birmingham
Sill, Jacob A.....19635 Mack Ave., Detroit 36
Siller, John J.....16401 Grand River, Detroit 27
Sillery, Robt. J.....857 Grosse Pte. Ct., Grosse Pte. 30
Sills, Richard D.....14444 W. McNichols Rd., Detroit 35
Silvarman, Israel Z.....9105 Van Dyke Ave., Detroit 13
Silver, Israel W.....20000 W. Chicago, Detroit 28
Silver, Robert R.....275 W. Grand Blvd., Detroit 16
Silverman, Maurice M.....17301 W. 8 Mi. Rd., Detroit 35
Silverman, Max.....2240 W. Grand Blvd., Detroit 8
Simmons, Donald R.....958 Fisher Bldg., Detroit 2
Simon, Heinz G.....18031 Kelly Rd., Detroit 24
Simpson, Gordon E.....18101 E. Warren Ave., Detroit 24
Simson, Clyde B.....951 E. Lafayette, Detroit
Sinclair, James W.....16404 E. Warren, Detroit 24
Singer, Floyd W.....13530 Michigan Ave., Dearborn
Sippola, Geo. W.....13603 LaSalle Blvd., Detroit 38
Sisson, John M.....17320 W. McNichols, Detroit 35
Sivak, B. J.....24604 Templar, Southfield
Sklar, Manuel.....14444 W. 6 Mile Rd., Detroit 35
Skully, Edward J.....14000 Linnhurst, Detroit 5
Sladen, Frank J. (L).....Henry Ford Hospital, Detroit 2
Slahetka, Vincent E.....19334 Bretton Drive, Detroit 23
Slaugenhaupt, J. G. (L).....16887 Lawton, Detroit 21
Slaughter, Fred M.....455 E. Adams St., Detroit 26
Slazinski, Leo W.....7618 Michigan Ave., Detroit 10
Slevin, John G.....10 Witherell St., Detroit 26
Sliwin, Edward P.....4917 Schaefer Rd., Dearborn
Slusky, Jos.....854 Fisher Bldg., Detroit 2
Slutzky, Gilbert.....18614 Warrington, Detroit 21
Sly, Robt. F.....2101 Monroe Blvd., Dearborn 8
Small, Henry.....11507 Hamilton Ave., Detroit 2
Smathers, Homer M.....14219 W. McNichols, Detroit 35
Smathers, Ward M.....14219 W. McNichols, Detroit 35
Smeck, Arthur R. (L).....1036 Waterman Ave., Detroit 9
Smith, Claude A. (L).....7 Adams Lane, Dearborn
Smith, Douglas H.....10151 Michigan, Dearborn
Smith, F. Janney (L).....1050 Yorkshire Rd., Grosse Pte. Pk. 30
Smith, Henry L.....16401 Grand River Ave., Detroit 27
Smith, J. Allen.....14140 Puritan Ave., Detroit 27
Smith, Richard H.....1308 Broadway, Detroit 26
Smith, Richmond W., Jr.....2799 W. Grand Blvd., Detroit 2
Smith, Roger F.....18755 Wilshire Ave., Lathrup Village

Smith, W. Pierce.....Henry Ford Hospital, Detroit 2
Smolenski, John J.....13815 Puritan Ave., Detroit 27
Smyka, Edward J.....6111 Charles St., Detroit 12
Smyka, Stanley M.....15731 Glenwood, Detroit 5
Snedeker, Bernard C.....18800 Woodward Ave., Detroit 3
Snider, Thomas H.....VA Hospital, Dearborn
Snoke, Edwin C.....Lynn Hospital, Detroit 17
Snow, Linwood W.....508 W. Main St., Northville
Snyder, Richard J.....25701 Joy Rd., Dearborn
Sobel, Robt. A.....18980 Wyoming, Detroit 21
Soifer, Sidney.....Sinai Hospital, Detroit 35
Sokol, Wm. M.....15800 W. McNichols, Detroit 35
Sokolov, Raymond A.....3011 W. Grand Blvd., Detroit 2
Solberg, Lincoln E.....2021 Monroe, Dearborn
Solle, Alex S.....19309 Greenfield, Detroit 35
Solomon, A. B.....9559 Greenfield, Detroit 27
Solomon, Robert J.....1221 Lincoln, Lincoln Park
Sonda, Lewis P.....1553 Woodward Ave., Detroit 26
Sorock, Milton L.....19467 Livernois, Detroit 21
Sosa, Carlos M. A.....10824 Talbot St., Huntington Woods
Speck, Carlos C.....6525 Park Ave., Allen Park
Spector, Maurice J.....12938 E. Jefferson, Detroit 15
Spero, Gerald D. (A).....7330 W. 7 Mile Rd., Detroit 21
Sperry, Frederick L. (A)....490 Arlington, Berkley, Calif.
Sphire, Raymond D.....4160 John R St., Detroit 1
Spiro, Adolph S.....13240 Harper, Detroit 13
Springborn, Benj. R. (L).....15818 E. Warren Ave., Detroit 24
Sprunk, Carl J.....2900 Oakwood Blvd., Melvindale
Spurrier, Ethelbert.....1553 Woodward Ave., Detroit 26
Squires, Walter M. (R).....1616 S. 28 Ave., St. Petersburg, Fla.
Stalker, Hugh (R).....824 Lakeshore, Detroit 36
Stamell, Benjamin B.....658 Maccabees Bldg., Detroit 12
Stamell, Meyer.....14634 Greenfield St., Detroit 27
Staniszewski, C.....8581 Pinehurst, Detroit 4
Stanton, James M.....1001 Mutual Bldg., Detroit 26
Stanton, Myron R.....3400 W. Warren, Detroit 8
Stapleton, Wm. J., Jr. (L).....201 E. Kirby Ave., Detroit 2
Starbird, Wm. A.....14110 Gratiot, Detroit 5
Staricco, Renato.....3725 Fort St., Lincoln Park
Starkman, Morris.....17104 Hoover, Detroit 5
Starrs, Thos. C. (L).....509 Fox Theatre Bldg., Detroit 1
Staryk, Steven E.....1010 N. Oxford Rd., Detroit 36
Statzer, Darrell E.....955 Fisher Bldg., Detroit 2
Staub, Howard P.....37625 Michigan Ave., Wayne
Staudt, Louis W.....1201 Pilgrim, Birmingham
Stearns, Alexander B.....1116 Maccabees Bldg., Detroit 2
Stebbins, Chas. E.....664 Fisher Bldg., Detroit 2
Stecker, Arthur.....13622 Dexter, Detroit 38
Steel, William B.....6958 Town Lane, Dearborn
Steepe, Chas. A. D.....2081 Mack, Grosse Pte. Woods
Stefani, Andrew E.....1701 N. Renaud, Detroit 36
Stefani, Ernest L.....18600 Birchcrest, Detroit 21
Stefani, Raymond T.....13526 Stoepel, Detroit 38
Stein, Albert H.....19334 San Juan Dr., Detroit 21
Stein, Emory.....13115 Woodward, Detroit 3
Stein, Harvey S.....19075 Middlebelt Rd., Livonia
Stein, Saul C.....23105 Van Dyke, Van Dyke
Steinbach, A. L.....320 Merriweather Rd., Grosse Pte. 36
Steinberger, E. J.....6402 W. Fort St., Detroit 9
Steiner, Fredk. B.....7675 Ridge Rd., Plymouth
Steiner, Gabriel.....10 Peterboro St., Detroit 1
Steiner, Louis J.....12636 Chelsea Ave., Detroit 13
Steiner, S. D.....3044 W. Grand Blvd., Detroit 2
Steinhardt, Milton J.....10720 W. 7 Mile Rd., Detroit 21
Stellhorn, Chester E.....12900 W. 7 Mile Rd., Detroit 35
Stellhorn, Mary C (A).....16616 Mack Ave., Detroit 24
Stempel, Edward M.....18324 Fairfield Ave., Detroit 21
Sterba, Richard F.....1130 Parker Ave., Detroit 14
Sterling, Robt. R.....52 Oxford Blvd., Pleasant Ridge
Stern, Edward A.....12710 Dexter Blvd., Detroit 38
Stern, Julian.....1553 Woodward Ave., Detroit 26
Stern, Leonard H.....1630 Wellesley Dr., Detroit 3
Stern, Louis D.....1553 Woodward Ave., Detroit 26
Stevens, Chas. H.....Med. Concourse Northland Center, Southfield
Stevenson, Chas. S.....19545 Park Lane, Grosse Ile
Stevenson, Lee B.....Henry Ford Hosp., Detroit 2
Stewart, Lula B.....8633 Dexter Blvd., Detroit 6
Stewart, Maitland N., Jr.....10 Peterboro St., Detroit 1
Stewart, Robert M.....15357 Farmington Rd., Livonia
Stewart, Thos. O.....17187 Schaefer Highway, Detroit 35
Stewart, Marjorie.....581 Golfcrest, Dearborn
Stiefel, Danl. M.....1553 Woodward Ave., Detroit 26
Stillwater, Karl.....18221 Pennington, Detroit 21
Stirling, A. M. (R).....1399 Torrey Rd., Detroit 36
Stith, Dwight E.....505 Owen St., Detroit 2
Stobbe, Godfrey D.....Grace Hospital, Detroit 1
Stocker, Lawrence L.....7330 W. 7 Mile Rd., Detroit 21
Stocker, Marvin L.....16401 Grand River, Detroit
Stockwell, Benj. W.....3919 John R St., Detroit 1
Stokfisz, Thaddeus.....7012 Michigan, Detroit 10
Stoller, Raymond.....25210 Grand River Ave., Detroit 40
Stone, David Q.....3001 Miller Rd., Dearborn
Stone, Sidney L.....14620 E. 7 Mile Rd., Detroit 5
Straith, Richard E.....2605 W. Grand Blvd., Detroit 8
Strand, Martin E.....22400 Cherry Hill, W. Dearborn
Stricker, Henry D.....5624 W. Fort St., Detroit 9
Strickroot, Fred L.....3800 Bishop Rd., Detroit 24
Stronski, G. E.....9901 Whittier, Detroit 24
Strutz, Wm. C.....68 Westwood, Leavenworth, Kansas
Stryker, Joan C.....21604 E. River Rd., Grosse Ile
Stryker, Walter A.....P.O. Box 31, Wyandotte
Stubbs, Clayton T.....13930 Woodward, Detroit 3
Stump, Geo. D.....1355 Dav. Whitney Bldg., Detroit 26
Suen, Irene T. S.....3675 E. Outer Dr., Detroit 34
Sugar, David I.....13120 Broadstreet, Detroit 38
Sugar, H. Saul.....18140 San Juan Dr., Detroit 21
Sugarman, Marcus H.....15201 W. McNichols, Detroit 35
Sullivan, Hugh A.....1553 Woodward Ave., Detroit 26
Sultzman, L. Carl.....1438 Iroquois, Detroit 14
Summers, Wm. A.....1553 Woodward Ave., Detroit 26
Summers, Wm. S. (L).....402 N. Palmway, Lake Worth, Fla.
Surbis, John P.....22277 Long Blvd., Dearborn
Sutherland, Jacob M. (L)....716 Pallister Ave., Detroit 2
Suwinski, Raymond H.....9801 Conant St., Hamtramck 12
Swan, Donald C.....651 Fisher Bldg., Detroit 2
Swanson, Carl W.....936 Alter Rd., Detroit 15
Swanson, Raymond E. (A).....22161 W. Outer Dr., Dearborn
Swanson, Robt. G.....936 Alter Rd., Detroit 15
Swartz, Fred G., Jr.....1329 David Whitney Bldg., Detroit 26
Sweeny, Donald N., Jr.....8445 E. Jefferson, Detroit 14
Swihart, John J.....505 Dav. Whitney Bldg., Detroit 26
Switzer, Bertrand C. (R).....12246 Ilene, Detroit
Syphax, Charles S.....1819 Davison, Detroit 3
Szabunia, Sigmund C.....19600 Van Dyke, Detroit 34
Szilagyi, D. Emerick.....14638 Stahelin, Detroit 23
Szladek, Frank J.....4045 W. Jefferson Ave., Ecorse 29

Taber, Rodman E.....Henry Ford Hosp., Detroit 2
Tactac, Albert J.....1355 Dav. Whitney Bldg., Detroit 26
Talbot, Frank G.....1365 Cass, Detroit 26
Tallant, Edward J.....14001 Greenfield, Detroit 27
Talmers, Fredk. N.....VA Hospital, Dearborn
Tamblyn, E. J. (L).....737 Marlborough, Detroit 15
Tanner, Natalia M.....8035 Twelfth St., Detroit 6
Tapert, Julius C.....888 Chalmers Ave., Detroit 15
Tarpinian, Dick A.....1048 David Whitney Bldg., Detroit 26
Tarpinian, Harry.....37625 Michigan, Wayne
Tasker, Helen E.....76 W. Adams Ave., Detroit 26
Tassie, Ralph N.....15000 Gratiot Ave., Detroit 5
Tatelis, Gabriel A.....1011 E. Grand Blvd., Detroit 7
Tatelman, Maurice.....5440 Cass Ave., Detroit 2
Taurence, Wm. H.....1860 Ford Ave., Wyandotte
Taylor, Ivan B.....1421 Anita Avenue, Grosse Pointe 36
Taylor, Junius L.....2433 W. Boston Blvd., Detroit 6

Taylor, Nelson M.....654 St. Clair Ave., Grosse Pointe 30
Taylor, Richard A.....28 W. Adams St., Detroit 26
Taylor, Wm. V.....324 Moross Rd., Detroit 36
Tazzioli, Henry A.....21970 Moross Rd., Detroit 36
Tear, Malcolm J. J.....862 W. McNichols Rd., Detroit 3
Teitelbaum, Myer.....18510 Meyers Road, Detroit 35
Tenaglia, Thos. A.....820 Kings Hwy., Lincoln Park
Tenerowicz, R. G.....2925 Lehman Ave., Detroit 12
Texter, Elmer C.....7457 Gratiot Ave., Detroit 13
Theisen, Nikolaus J.....Wayne Co. Gen. Hosp., Eloise
Thomas, Alfred E.....73 E. Palmer, Detroit 2
Thomas, Blanche M.....6535 Allen Rd., Allen Park
Thomas, Delma F. (L)....3011 W. Grand Blvd., Detroit 2
Thompson, Arthur L.....12632 Dexter, Detroit 38
Thompson, Hugh O.....6014 W. Fort St., Detroit 9
Thompson, Wm. A. (R).....12632 Dexter, Detroit 38
Thomson, Danl. C.....2966 Biddle Ave., Wyandotte
Thornell, Harold E.....7407 Twelfth St., Detroit 6
Thornton, Jerry A.....525 Visger Rd., Ecorse 29
Thosteson, G. C.....1139 David Whitney Bldg., Detroit 26
Thumann, Robt. C.....1757 Dav. Whitney Bldg., Detroit 26
Thumim, Sadie.....15306 Joy Rd., Detroit 28
Timma, Richard J.....16401 Grand River Ave., Detroit 27
Ting, Yoeh Ming.....16024 Stratford Dr., Southfield
Tkaczuk, Dmytro.....10345 Joseph Campau, Detroit 12
Tobin, John S.....13400 W. Outer Dr., Detroit 28
Todoroff, Theodore G.....22740 Hollander, Dearborn
Tolbert, Vassal G.....3705 Hastings St., Detroit 1
Tomsu, Chas. L.....16521 Westmoreland Rd., Detroit 19
Torres, Estelle P.....3985 Caniff, Hamtramck 12
Torres, Raul M., Jr.....3985 Caniff St., Hamtramck 12
Tourkow, Lawrence P.....4741 Fullerton, Detroit 38
Tourney, Garfield.....Lafayette Clinic, Detroit 17
Townsend, Frank M., Jr.....1551 Trumbull Ave., Detroit 16
Tracey, Edward G.....3411 Evaline St., Detroit 12
Tracey, John M.....15317 W. McNichols, Detroit 35
Trader, Kenneth N.....3001 W. Grand Blvd., Detroit 2
Tregenza, Wm. K.....18530 Grand River, Detroit 23
Tremain, Harold L.....106 W. Davison, Detroit 3
Troester, Geo. A.....1140 Maccabees Bldg., Detroit 2
Trombino, James F. V.....18800 Woodward Ave., Detroit
Truba, Paul K.....3714 W. McNichols Rd., Detroit 21
Trudgen, Paul E.....1224 Beechmont, Dearborn
Trupiano, Samuel.....420 Eastland Center Prof. Bldg., Detroit 36
Trythall, S. W.....Box 33, Orchard Lake
Tulloch, John.....1040 David Whitney Bldg., Detroit 26
Tupper, Roy D.....15101 W. 7 Mile Rd., Detroit 19
Turbett, Claude W. (L).....4230 Commonwealth Ave., Detroit 8
Turcotte, Vincent J. (A).....545 Lakeland, Grosse Pointe
Turkel, Henry.....8000 W. 7 Mi. Rd., Detroit 21
Turnbull, Jack V.....22340 Michigan Ave., Dearborn
Turner, John J.....25447 Plymouth Rd., Detroit 39
Turner, Rachel E.....3113 Evergreen, Royal Oak
Tuttle, William M.....307 Dav. Whitney Bldg., Detroit 26
Tygart, Robert L.....Wayne Co. Gen. Hosp., Eloise

Uddyback, Odie T.....7647 Linwood, Detroit 6
Ujda, Chester J.....32126 Woodbrook, Wayne
Ulbrich, Henry L. (L).....1540 Torrey Rd., Grosse Pte. Wds. 36
Ulmer, Arthur A.....1989 Broadstone, Detroit 36
Ulrich, Willis H.....22365 Grand River Ave., Detroit 19
Umphrey, Clarence E.....6216 Hill Dr., Birmingham
Unkefer, Wm. T.....15800 W. McNichols Rd., Detroit 35
Usher, Wm. K.....15605 Kercheval Ave., Grosse Pointe 30
Usndek, Harold E.....18485 Mack Ave., Detroit 36

Vaitas, Otonas.....9928 Farmington, Livonia
Vale, Clair F. (R)....2615 Via Tuscany, Winter Pk., Fla.
Vaitkevicius V.....Henry Ford Hosp., Detroit 2
Van Arsdale, Wm. L. (A).....15920 Loveland, Livonia
Van Becelaere, L. A.....1860 Ford Ave., Wyandotte
Vanden Berg, H. J., Jr.....1553 Woodward Ave., Detroit 26
Vander, Seymour A.....12730 W. McNichols Rd., Detroit 35
Van Eck, James E.....1716 E. Grand Blvd., Detroit 11
Van Hoek, Donald E.....14540 E. Warren Ave., Detroit 15
Van Raaphorst, L. F.....861 Monroe, Dearborn
Van Riper, Steven L.....1490 Iroquois, Detroit 14
Van Slyck, E. J.....Henry Ford Hosp., Detroit 2
Vanvalzah, Henry J.....Ford Mtr. Co., Miller Rd., Dearborn
Vardon, Edward M.....12897 Woodward Ave., Highland Park 3
Vasu, Vasile O.....4829 Woodward Ave., Detroit 1
Velat, Clarence A.....2500 W. Grand Blvd., Detroit 8
Veling, William F.....3001 W. Grand Blvd., Detroit 2
Vincent, John W.....22214 Ford Rd., Dearborn
Vipond, Wm. S.....15398 Gratiot Ave., Detroit 5
Vokes, Milton D.....10182 Gratiot Ave., Detroit 13
Vonder Heide, Elmore C.....17190 Strathmoor, Detroit 35
Vorwald, Arthur J.....1401 Rivard St., Detroit 7
Vossler, Albert E.....1553 Woodward Ave., Detroit 26

Waggoner, Lyle G.....404 Dav. Whitney Bldg., Detroit 26
Wainger, Max J.....10 Witherell St., Detroit 26
Wainstock, Michael A.....10 Witherell St., Detroit 26
Wakeman, Everal M.....22276 Garrison Ave., Dearborn
Waldbott, Geo. L.....2930 W. Grand Blvd., Detroit 2
Walker, Geo. L.....10 Peterboro, Detroit 1
Walker, Jesse P.....15510 Mack Ave., Detroit 24
Walker, Roger V.....1553 Woodward Ave., Detroit 26
Walkowiak, Robt. G.....76 W. Adams Ave., Detroit 26
Wallace, Silas W.....7815 E. Jefferson Ave., Detroit 14
Wallaert, Albert A. J.....20861 Mack Ave., Detroit 36
Waller, John P.....11445 Harrison, Livonia
Walls, Arch.....17201 W. McNichols Rd., Detroit 35
Walser, Howard C.....459 Fisher Bldg., Detroit 22
Walsh, Francis P.....654 Fisher Bldg., Detroit 2
Walter, Arthur W.....14201 Rutland Rd., Detroit 27
Walter, Floyd J.....18714 Grand River Ave., Detroit 23
Waltz, Arthur G. (M).....1819 Sycamore, Royal Oak
Wang, Chun Heng H.....6904 Town Lane, Dearborn 6
Warner, Jack F.....4811 W. Outer Drive, Detroit 35
Warner, Peter L. (L).....18145 Cornell Rd., Southfield
Warren, Irving A.....4100 W. McNichols Rd., Detroit 21
Warren, Max W.....20001 Shrewbury St., Detroit 21
Warren, Wadsworth.....1144 Dav. Whitney Bldg., Detroit 26
Wasserman, Harold.....19642 W. 7 Mile Rd., Detroit 19
Waszak, Chas. J.....2501 W. Grand Blvd., Detroit 8
Watson, Douglas J.....15101 Plymouth, Detroit 27
Watson, Harwood G.....935 S. Military Ave., Dearborn
Watson, J. Edwin.....2536 W. Grand Blvd., Detroit 8
Watts, Fredk. B.....16321 Mack Ave., Detroit 24
Watts, John C.....7360 12th St., Detroit 6
Watts, Jos. C.....5057 Woodward Ave., Detroit 2
Wayne, Morris A.....15930 Livernois Ave., Detroit 38
Weaver, Clarence E. (R).....1260 S.E. Fourth Ct., Deerfield Beach, Fla.
Weaver, Delmar F.....1100 Bishop, Detroit 30
Weber, Karl W.....18101 E. Warren Ave., Detroit 24
Weber, Olga P.....1360 Seward, Apt. 309, Detroit 2
Webster, John E. (A).....840 Dav. Whitney Bldg., Detroit 26
Weckstein, Marvin S.....18627 Tracey, Detroit 35
Weed, Milton R.....1997 E. Grand Blvd., Detroit 11
Wehenkel, Albert M. (L).....7356 12th St., Detroit 6
Wehr, Maurice B.....2355 Fort Street, Lincoln Park
Weiner, Allen D.....21415 W. 8 Mile, Detroit 19
Weiner, Maurice B.....20211 Greenfield, Detroit 35
Weingarden, David.....13240 Vassar Dr., Detroit 35
Weinstein, Jacob.....4237 Grand River Ave., Detroit 8
Weisberg, A. Allen.....20 W. 7 Mile Rd., Detroit 3
Weisberg, Harry.....15101 W. McNichols Rd., Detroit 35
Weisberg, Jacob.....15101 W. McNichols Rd., Detroit 35

Weisenthal, Irvin I.....5764 Woodward Ave., Detroit 2
Weiss, Casimir P.....1801 E. Canfield, Detroit 7
Weiss, Chas. F.....203 McMellen, Grosse Pte. 36
Weiss, Morris.....Hawthorn Center, Northville
Weissman, Frederick.....13345 W. McNichols, Detroit
Welch, John H.....18550 W. Outer Dr., Dearborn 7
Weller, Chas. N.....1553 Woodward Ave., Detroit 26
Wells, Herschel J.....Wayne Co. Gen. Hosp., Eloise
Wells, Martha L.....760 Fisher Bldg., Detroit 2
Weltman, Carl G. (A).....R.R.2, Snead Island, Palmetto, Florida
Wendel, Jacob S. (L).....744 David Whitney Bldg., Detroit 26
Wenzel, Jacob F.....18555 E. Warren, Detroit 36
Werle, Peter P.....1420 St. Antoine, Detroit 26
Wertz, Wm. J.....Receiving Hospital, Detroit 26
West, George A.....6303 Mack Ave., Detroit 7
West, Malcolm E.....4667 Mt. Elliott, Detroit 7
Weston, Bernard.....20403 Snowden Ct., Detroit 35
Weston, Earl E.....18101 Jas. Couzens Hwy., Detroit 35
Weston, Horace L.....28 W. Adams St., Detroit 26
Weston, Jean K.....261 Corrie Rd., Ann Arbor
Weyher, Russell F.....5383 Oakman Blvd., Detroit 4
Whalen, Neil J.....1553 Woodward Ave., Detroit 26
Wharton, Thos. V.....1809 Oak St., Wyandotte
Wheatley, Charles E.....10151 Michigan Ave., Dearborn
Wheeler, Stewart C.....18901 W. McNichols Rd., Detroit 19
Whelan, Jos. L.....1360 Oxford Rd., Detroit 36
Whitcomb, Chas. E.....15111 Seminole, Detroit 39
White, Donald H.....20685 Meridian, Grosse Isle
White, Milton W.....1439 E. Outer Dr., Detroit 34
White, Prosper D.....66 Tuxedo Ave., Highland Park 3
White, Theodore M.....7159 Michigan, Detroit 10
Whitehead, Leston S.....1553 Woodward Ave., Detroit 26
Whitehead, Walter K.....1553 Woodward Ave., Detroit 26
Whitehouse, Fred W.....2799 W. Grand Blvd., Detroit 2
Whiteley, Robt. K.....216 Lakeland Ave., Detroit 30
Whitelock, Edward H.....1809 Oak St., Wyandotte
Whitman, James E.....3137 E. Seven Mile Rd., Detroit 34
Whitney, Elmer L. (L).....2 Kenberton Rd., Pleasant Ridge
Whitney, Rex E.....5525 W. Chicago Ave., Detroit 4
Whitrock, Robt. M.....1401 Rivard St., Detroit 7
Whittaker, Alfred H.....1427 E. Jefferson Ave., Detroit 7
Wiechowski, Henry E.....10345 Joseph Campau, Detroit 12
Wiener, Israel.....13011 W. McNichols Rd., Detroit 35
Wiener, Morton J.....612 Kales Bldg., Detroit 26
Wietersen, Fred K.....18700 Meyers Rd., Detroit 35
Wight, Fred B.....27225 Little Mack Ave., St. Clair Shores
Wikiera, Edward S.....15020 Michigan Ave., Dearborn
Wilcox, Leslie F. (A).....505 Middlesex Rd., Grosse Pointe Park
Wilhelm, Seymour K.....13011 W. McNichols, Detroit 35
Wilkinson, Arthur P.....3001 W. Grand Blvd., Detroit 2
Willard, Rodney E.....22231 W. Outer Dr., Dearborn
Williams, Clarence J.....1342 Grayton Rd., Detroit 30
Williams, Earl R.....4465 Charles, Dearborn
Williams, Eugene W.....10149 Michigan, Dearborn
Williams, John H.....15324 E. Jefferson, Detroit 30
Willoughby, Wm. A.....974 Fisher Bldg., Detroit 2
Wilner, Freeman M.....15001 W. 8 Mile Rd., Detroit 35
Wilner, Irvin A.....17701 McNichols Rd., Detroit 35
Wilson, Andrew G...19203 Grand River Ave., Detroit 23
Wilson, Geo. M., Jr.....Henry Ford Hosp., Detroit 2
Wilson, Gerald A.....771 Fisher Bldg., Detroit 2
Wilson, Gerald S.....3011 W. Grand Blvd., Detroit 2
Wilson, Ian D.....4741 Spokane, Detroit 4
Wilson, Merton C.....15439 Harper Ave., Detroit 24
Winnick, Lawrence C.....19120 Snowden, Detroit 35
Winton, Geo. J.....1150 Griswold St., Detroit 26
Wise, Robt. K.....15801 W. McNichols Rd., Detroit 35
Wishropp, Edward A.....20250 Mack, Grosse Pointe 36
Wisniewski, E. M.....20100 Cooley, Detroit 19
Wittenberg, Arthur A...7101 W. Chicago Blvd., Detroit 4
Wittenberg, Samson S.....2306 Oakman Blvd., Detroit 38
Wittenberg, Sydney S.....4400 Livernois Ave., Detroit 10
Witter, Jos. A.....344 Glendale Ave., Highland Park 3
Witus, Morris.....9036 Dexter Blvd., Detroit 6
Witus, Carl.....15041 E. 7 Mile Rd., Detroit 5
Wolfe, Max O.....7260 Gen. Motors Bldg., Detroit 2
Wolfson, Wm. Q.....130 Waverly, Highland Park
Wollank, Helen W.....15439 Harper, Detroit 24
Wollenberg, Robt. A. C. (L)..18675 Parkside, Detroit 21
Wolter, James G.....Mt. Carmel Mercy Hosp., Detroit 35
Wood, Alfred L.....25001 Ford Rd., Dearborn
Wood, Douglas J.....2860 Clark Ave., Detroit 10
Wood, Geo. P.....2730 E. Jefferson St., Detroit 7
Wood, Kenneth A.....3919 John R St., Detroit 1
Wood, Wilford C.....3011 W. Grand Blvd., Detroit 2
Woodbury, Ralph F.....15850 E. Warren, Detroit
Woodley, Bernard J. (M)..P.O. Box 787, 29 Palms, Calif.
Woods, Joseph J.....18255 W. McNichols, Detroit
Woolfenden, Jos. B.....1215 3 Mile Rd., Grosse Pte. Park
Worrell, Calier H.....17800 E. 8 Mile Rd., Detroit
Worzniak, Jos. J.....2312 Biddle Ave., Wyandotte
Wreggit, Winston R.....17 Colorado Ave., Highland Park 3
Wright, Charles H.....50 Westminster, Detroit 2
Wruble, Jos.....411 Selden Ave., Detroit 1
Wunsch, Richard E.....497 Rivard Blvd., Grosse Pte. 30
Wyatt, Rudolph A.....2785 S. Fort St., Detroit 17
Wybranowski, Jan.....17644 W. Warren, Detroit 28
Wylie, John H.....Henry Ford Hosp., Detroit 2
Yarrows, Morton I.....455 Medbury St., Detroit 2
Yates, Arthur J. W.....16355 E. Jefferson, Grosse Pte. Pk.
Yesayian, H. G.....609 Kales Bldg., Detroit 26
Yetzer, Wm. J.....511 Professional Bldg., Detroit 1
Yoder, Robt. R.....41001 E. 7 Mile Rd., Northville
Yott, Wm. J.....854 Lakeshore Rd., Detroit 36
Young, David J.....19820 Plymouth Rd., Detroit 28
Young, Donald A.....14807 W. McNichols Rd., Detroit 35
Young, Donald C.....1151 Taylor, Detroit 2
Young, Irving I.....32280 Shrewsbury, Farmington
Young, Lloyd B.....Route 2, Suttons Bay
Young, M. O.....8445 E. Jefferson, Detroit 14
Young, Richard D...18000 Jas. Couzens Hwy., Detroit 35
Young, Viola M. (L).....10 Peterboro St., Detroit 1
Young, Watson A.....43691 Expressway, Belleville
Youngstrom, Clarence S.....8004 Lochdale, Dearborn
Zabinski, Edward J.....585 Ballantyne Rd., Detroit 36
Zadurowycz, Anton.....2900 S. Fort St., Detroit 17
Zager, Bernard S.....25321 Fenkell Ave., Detroit 39
Zako, Louis R.....Oakwood Hospital, Dearborn
Zavell, Paul M.....9634 Evarts, Detroit 24
Zawacki, Sigmund G.....22214 Ford Rd., Dearborn
Zawadzki, Edward S.....14961 Piedmont Ave., Detroit 23
Zbikowski, Jos.....Wayne Co. Gen. Hosp., Eloise
Zbikowski, Z. T.....33563 5 Mile Rd., Livonia
Zbudowski, Myron R.....10040 Jos. Campau Ave., Detroit 12
Zeff, Robert.....25210 Grand River, Detroit 40
Zelenock, Michael N.....2300 Oak, Wyandotte
Zemaitis, Petras.....3835 Biddle St., Wayne
Zemens, Jos. L.....13061 E. 8 Mile Rd., East Detroit
Ziegler, Robt. F.....Henry Ford Hosp., Detroit 2
Zielinski, Chas. J.....10801 W. Warren, Dearborn
Zinn, Geo. H.....1553 Woodward Ave., Detroit 26
Zolliker, Margaret Z.....1420 Anita St., Detroit 36
Zubroff, L. S.....752 Fisher Bldg., Detroit 2
Zuelzer, Wolf W.....5224 St. Antoine St., Detroit 2
Zukowski, Henry J.....72 N. Deeplands, Detroit 36
Zukowski, Sigmund A...6626 Van Dyke Ave., Detroit 13
Zwirkoski, T. S.....5605 Michigan Ave., Detroit 10

WEXFORD-MISSAUKEE COUNTY MEDICAL SOCIETY (226)

Bentley, M. D.....120 E. Cass, Cadillac
Cardinal, Thos. H.....212 S. Simons, Cadillac
Daugharty, Robt. V.....107 N. Mitchell, Cadillac
Inman, John C.....Lake City
Koepke, Benjamin.....McBain
Lommen, Ralph G.....Manton
Moon, Wm. W.....826 Oak St., Cadillac
Moore, G. P.....107½ N. Mitchell, Cadillac
Murphy, M. R.....120 Cass St., Cadillac
Norton, R. C.....706 Lincoln St., Cadillac
Pierce, Robert E.....554 S. Lake Mitchell Dr., Cadillac
Posthuma, Millard.....124 E. Cass St., Cadillac
Seger, Dean W.....Lake City
Smith, W. J. (L).....208 E. Harris St., Cadillac
Tornberg, G. C.....124 E. Cass St., Cadillac
Youngman, Douglas C.....Marion

HONORARY MEMBERS

Brake, D. Hale.....Stanton
Burns, Wm. J., LL.B.....120 W. Saginaw, E. Lansing
Cline, John W.....3467 Pacific Ave., San Francisco, Cal.
de Kruif, Paul, Ph.D.....Wake Robin, Holland
Johnson, Donald E.....211 E. Court St., Flint 3
Upjohn, Lawrence N.....301 Henrietta St., Kalamazoo

Alphabetical List

County Society Code Numbers

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Alpena, Alcona, Presque Isle	14
Barry	18
Bay, Arenac, Iosco	22
Berrien	26
Branch	30
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Keeler, Mrs. Van O.....712 Dix Ave., Otsego
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Van Der Kolk, Mrs. Bert.....Hopkins

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Jacoby, Mrs. A. H.....2202 Ninth St., Bay City
Jaffe, Mrs. Martin D.....705 McDonnell St., Essexville
Jens, Mrs. Otto.....1506 Prairie St., Essexville
Johnson, Mrs. Orlen J.....105 Parkwood Ct., Bay City
Jones, Mrs. Culver.....1024 Rosemary Lane, Essexville
Knobloch, Mrs. Howard.....1911 Center Ave., Bay City
Kulinski, Mrs. Eugene J.....601 Ames Ct., Bay City
Laporte, Mrs. L. A.....1238 Tawas Beach Rd., East Tawas
Langin, Mrs. John.....2126 Center Ave., Bay City
Macrae, Mrs. L. Douglas.....813 N. Sherman, Bay City
Mayne, Mrs. John C.....604 Park Ave., Bay City
McDonnell, Mrs. Walter R.....Pinconning
McEwan, Mrs. John.....2310 Nurmi Dr., Bay City
McGee, Mrs. Harry.....4774 Westgate Dr., Bay City
McGee, Mrs. Peter.....2105 Fifth St., Bay City
McLurg, Mrs. John.....1900 Center Ave., Bay City
Medvezky, Mrs. M. J.....314 Hill St., Bay City
Miller, Mrs. Edwin C.....614 Nurmi Ct., Bay City
Moore, Mrs. Neal R.....2141 Fifth St., Bay City
Mosier, Mrs. Dwight J.....307 Midland St., Bay City
Pearson, Mrs. S. M.....501 W. Jenny St., Bay City
Pelczar, Mrs. Walter.....321 N. Johnson St., Bay City
Perkins, Mrs. Roy C.....2118 Fifth St., Bay City
Prophater, Mrs. Robert C.....2696 Westgate Dr., Bay City
Reddick, Mrs. Charles.....2015 Seventh St., Bay City
Reed, Mrs. Wm. S.....2230 Groveland Rd., Bay City
Reuter, Mrs. Clarence.....5561 Gaertner Ct., Bay City
Rodda, Mrs. Edward H.....2005 Center Ave., Bay City
Rogers, Mrs. Charles.....81 Tuscola Rd., Bay City
Scrafford, Mrs. R. E.....814 Center Ave., Bay City
Shafer, Mrs. Harold C.....424 Green Ave., Bay City
Shields, Mrs. Hubert L.....206 Pine St., Essexville
Slattery, Mrs. M. T.....1914 Center St., Bay City
Staley, Mrs. Hugh O.....Omer
Stanford, Mrs. David.....2016 Sixth St., Bay City
Stankey, Mrs. Robert.....310 Pine St., Essexville
Stinson, Mrs. Walter.....4216 Ann Ct., Bay City
Stroia, Mrs. Lee N.....414 Main St., Essexville
Suter, Mrs. Don E.....1611 Green Ave., Bay City
Taheri, Mrs. Z. E.....2712 S. Westgate Dr., Bay City
Tarter, Mrs. C. S.....1712 Center Ave., Bay City
Taylor, Mrs. Robert S.....4656 Richardson Dr., Bay City
Tompkins, Mrs. Dana.....Pinconning
Treadway, Mrs. Gaylord A.....2263 Carroll Rd., Bay City
Urmston, Mrs. P. B.....1862 McKinley St., Bay City
Vail, Mrs. Harry.....1600 Borton St., Essexville
Wilcox, Mrs. James W.....210 Gates St., Bay City
Wilson, Mrs. T. G.....1714 Sixth St., Bay City
Woodburne, Mrs. H. L.....1107 Borton St., Essexville
Wright, Mrs. Thomas B.....531 Handy Dr., Bay City
Ziliak, Mrs. A. L.....3393 Kiesel Rd., Bay City

BERRIEN COUNTY

Bailey, Mrs. John.....2150 Samuel, Benton Harbor
Beal, Mrs. Gerald.....106 Brown School Rd., St. Joseph
Benner, Mrs. Wm. H.....408 Lakeshore Dr., St. Joseph
Bliesmer, Mrs. August F.....2108 Morton Ave., St. Joseph
Bronfenbrenner, Mrs. Jack.....169 Michigan St. Benton Harbor
Camp, Mrs. Donald.....535 Cherry St., Niles
Chickering, Mrs. Wm. A.....205 E. Delaware Benton Harbor
Cilella, Mrs. S. G.....811 Peashway, South Bend 17, Ind.
Cooper, Mrs. Wm. L.....Box 28 N. Maple Dr., Coloma
Conybeare, Mrs. Robt. C.....756 Pipestone, Benton Harbor
Crowell, Mrs. Richard C.....920 Sunset Ct., St. Joseph
Earle, Mrs. Max R.....190 Michigan St., Benton Harbor
Elghammer, Mrs. Richard M.....1106 Highland Ave. St. Joseph
Elliot, Mrs. J. Colin.....Park Ct., Buchanan
Faber, Mrs. Michael.....176 W. Napier, Benton Harbor
Fattic, Mrs. Grover R.....806 S. Third St., Niles
Garrett, Mrs. Evan.....3420 N. Fifth St.. Niles
Galles, Mrs. James O.....Box 29 R.R. #1 Paw Paw Island, Coloma
Gould, Mrs. Samuel....309 Fidelity Bldg., Benton Harbor
Hassan, Mrs. D. Kent.....606 Rynearson, Buchanan
Hayes, Mrs. Thomas P.....Box 739 Lakeshore Dr., St. Joseph
Hershey, Mrs. Noel J.....1648 Broadway, Niles
Howard, Mrs. Frank W.....756 Pipestone, Benton Harbor
Hudnutt, Mrs. Dean.....332 E. Napier Ave.. Benton Harbor
Huff, Mrs. Harold D.....126½ Main St., Niles
Irgens, Mrs. Edwin.....1110 Flanders, St. Joseph
Johnston, Mrs. Wm. H.....514 Sutherland, St. Joseph
Kenfield, Mrs. W. J.....Box 10 N. Shore Dr., Benton Harbor
Kennedy, Mrs. F. Alan.....582 Pearl, Benton Harbor
King, Mrs. Byron B.....1296 Seneca Rd., Benton Harbor
Klos, Mrs. Henry J.....2700 Highland St., Benton Harbor
Landgraf, Mrs. Robt. L.....527 W. Main, Niles
Lindenfeld, Mrs. Fred H.....443 S. St. Joseph St., Niles
Lininger, Mrs. Richard E.....2712 Highland Ct., St. Joseph
Manning, Mrs. John T.....1611 Forres Ave., St. Joseph
May, Mrs. A. J.....925 Pipestone, Benton Harbor
McLelland, Mrs. J. T.....437 Hooverway, Benton Harbor
Mesirow, Mrs. Stanley M.....1758 Commonwealth, Benton Harbor
Moore, Mrs. T. Scott.....1649 Broadway, Niles
Ozeran, Mrs. Chas. J.....127 E. Napier, Benton Harbor
Porter, Mrs. Chas. B.....1589 Colfax Ave., Benton Harbor
Pritchard, Mrs. Harold M.....2031 US 31 N., Niles
Ray, Mrs. Dean K.....2019 Langley Ave., St. Joseph
Reagan, Mrs. Robt.....232 Windsor Rd., Benton Harbor
Rice, Mrs. Franklyn G.....324 N. Fourth St., Niles
Richmond, Mrs. Dean M.....218 S. Sunnybank Rd., St. Joseph
Ruth, Mrs. J. Griswold.....507 Britain Ave., Benton Harbor
Skinner, Mrs. James W.....460 Ridgeway St., St. Joseph
Smith, Mrs. W. B.....192 Robbins, Benton Harbor
Strayer, Mrs. J. C.....103 Moccasin, Buchanan
Strayer, Mrs. John W.....553 Grant, Niles
Stulik, Mrs. Chas. K.....Box 98 Town Line Rd., Union Pier
Thorup, Mrs. D. W.....1160 Miami Rd., Benton Harbor
Valantiejus, Mrs. John A.....R.R. #2 Cedar Lane Farm, New Buffalo
Vastine, Mrs. Russell J.....430 W. Chicago, Buchanan
Woodford, Mrs. Hackley E.....North Shore Dr.. Benton Harbor
Wilson, Mrs. Clinton W.....925 Pipestone, Benton Harbor
Zick, Mrs. Luther H.....426 Ridgeway, St. Joseph

BRANCH COUNTY

Aldrich, Mrs. Napier S.....162 Marshall St., Coldwater
Bacon, Mrs. Charles R.....59 North Circle Dr., Coldwater
Bailey, Mrs. James.....10 Carlyle Ave., Coldwater
Beck, Mrs. Perry C.....235 N. Walker, Bronson
Buell, Mrs. Martin F.....407 N. Broadway, Union City
Coates, Mrs. Carl A.....R.R. #1, Quincy
Culver, Mrs. B. W.....72 Division, Coldwater
Culver, Mrs. Dean T.....78 Division, Coldwater
Fraser, Mrs. Robt. J.....52 Fairfield Dr., Coldwater
Gist, Mrs. Lemuel I.....80 N. Sprague St., Coldwater
Gomley, Mrs. Henry G.....435 W. Chicago St., Bronson
Hamilton, Mrs. Earl....State Home and Training School, Coldwater
Harris, Mrs. Donald.....28 Edison Ct., Coldwater
Heffelfinger, Mrs. John C.....150 Liberty St., Coldwater
Leitch, Mrs. Robt. M.....R.R. #2, Union City
Mooi, Mrs. H. Roy.....20 Fairfield Dr., Coldwater
Moss, Mrs. Harvey L.....86 W. Clarke St., Coldwater
Nettleman, Mrs. Wm. E.....136 E. Pearl St., Coldwater
Olmsted, Mrs. Kenneth L.....70 Marshall St., Coldwater
Rennell, Mrs. Edward J.....State Home & Training School, Coldwater
Rick, Mrs. John.....131 N. Hanchett, Coldwater
Southworth, Mrs. Robt.....172 Fairfield Ave., Coldwater
Thomas, Mrs. James E.....390 E. Chicago, Coldwater
Wade, Mrs. Robt. L.....144 E. Chicago, Coldwater
Walton, Mrs. Nathan J.....61 E. Chicago, Quincy
Weidner, Mrs. Harold J.....16 S. Fremont, Coldwater
Wise, Mrs. Robt.....State Home & Training School, Coldwater

CALHOUN COUNTY

Albright, Mrs. Arnold A.....R.R. #3, Box 380A, Battle Creek
Allen, Mrs. Richard H.....177 Orchard Ave., Battle Creek
Amos, Mrs. Norman H.....191 Waubascon Rd.. Battle Creek
Bakken, Mrs. Richard L...91 Sherman Rd., Battle Creek
Barden, Mrs. Stuart P...R.R. #6, Box 9112, Battle Creek
Baribeau, Mrs. Roy H.....1003 Capitol Ave. S.W.. Battle Creek
Becker, Mrs. Harry F...R.R. #3, Box 303A, Battle Creek
Beuker, Mrs. Herman.....501 N. Kalamazoo, Marshall
Bodine, Mrs. Harold R.....396 Country Club Dr., Battle Creek
Bonifer, Mrs. Philip P.....93 Clinton Dr., Battle Creek
Boswell, Mrs. David E.....315 N. Madison, Marshall
Brown, Mrs. Robt. W.....24 Country Club Dr., Battle Creek
Byland, Mrs. Nils O...107 Greenwood Ave., Battle Creek
Campbell, Mrs. Jack S.....119 Shadywood Lane, Battle Creek
Campbell, Mrs. Richard J.....315 N. Orchard Place, Battle Creek

Capron, Mrs. Manley J., Jr.....114 College St., Battle Creek
Chandler, Mrs. Edward M.....55 N. Broad St., Battle Creek
Chynoweth, Mrs. Wm. R.....88 Ann Ave., Battle Creek
Coakes, Mrs. Jack E.....716 Gorham St., Marshall
Colquhoun, Mrs. Graham F.....12 Country Club Dr., Battle Creek
D'Aversa, Mrs. Gene.....705 Orchard Dr., Albion
Diamante, Mrs. Paul J.....224 WahWahTaySee Way, Battle Creek
Ferazzi, Mrs. Patrick S...111 Orchard Ave., Battle Creek
Fraser, Mrs. Robt. H.....198 Fremont St., Battle Creek
Finch, Mrs. Duward L.....72 Jennings Rd., Battle Creek
Fisher, Mrs. Robt. E.....1501 W. Michigan Ave., Battle Creek
Funk, Mrs. L. D.....133 W. Burr Oak, Athens
Giddings, Mrs. Allan M.....Battle Creek Health Center, Battle Creek
Graubner, Mrs. Franklin.....707 N. Linden, Marshall
Griffith, Mrs. Jack C.....R.R. #3, Box 261, Bellvue
Hamady, Mrs. A.....236 Central, Battle Creek
Hansen, Mrs. Harvey C.....80 Country Club Dr., Battle Creek
Hibbs, Mrs. Donald K.....117 Sunnyside Dr., Battle Creek
Hills, Mrs. C. R.....210 Chestnut St., Battle Creek
Holtom, Mrs. Benjamin G.....78 Norwood Dr., Battle Creek
Hubly, Mrs. James W.....446 Country Club Dr., Battle Creek
Humphrey, Mrs. Arthur A.....788 Country Club Dr., Battle Creek
Jeffrey, Mrs. James R.....62 Ann Ave., Battle Creek
Jones, Mrs. Aubrey H...513 W. Michigan Ave., Marshall
Keagle, Mrs. Leland R...41 Garrison Ave., Battle Creek
Kelleher, Mrs. George T...65 Sherman Rd., Battle Creek
Kimball, Mrs. Arthur S., Jr.....196 Capital Ave. N.E., Battle Creek
Kinde, Mrs. Matthew R...R.R. #3, Box 62, Battle Creek
Kingsley, Mrs. Paul C...29 Woodmer Lane, Battle Creek
Klopp, Mrs. Edward J.....535 Capital Ave. N.E., Battle Creek
LaFrance, Mrs. N. F.....Vets. Adm. Hosp., Battle Creek
Lam, Mrs. Francis L.....151 Sunnyside Dr., Battle Creek
Lancaster, Mrs. Vance B.....251 Chestnut, Battle Creek
Levy, Mrs. Joseph.....343 N. Orchard Pl., Battle Creek
Lowe, Mrs. Stanley.....12 Hiawatha Dr., Battle Creek
Lund, Mrs. Chester A. E.....33 Fremont St., Battle Creek
McCuaig, Mrs. Alfred G.....145 Pleasant River Dr., Battle Creek
Melges, Mrs. Frederick J.....314 N. Orchard Pl., Battle Creek
Morrison, Mrs. Donald B.....25 Crest Dr., Battle Creek
Mullenmeister, Mrs. Hugh F.....275 Capital Ave. N.E., Battle Creek
Orr, Mrs. Eli H.....121 N. 19th St., Battle Creek
Parkinson, Mrs. Charles E.....R.R. #3, Box 605, Battle Creek
Patrick, Mrs. Gilbert T...16 Hiawatha Dr., Battle Creek
Pearson, Mrs. Donald J.....32 Hiawatha Dr., Battle Creek
Power, Mrs. John R.....231 Fremont St., Battle Creek
Robbert, Mrs. John.....164 Francis Dr., Battle Creek
Rosenfeld, Mrs. Joseph E.....115 Laurel Dr., Battle Creek
Royer, Mrs. Clark W.....125 Sunnyside Dr., Battle Creek
Ryan, Mrs. Charles J.....540 Country Club Dr., Battle Creek
Schwarz, Mrs. Frank W.....31 Orchard Pl., Battle Creek
Shellenberger, Mrs. Herbert M.....131 W. Hanover, Marshall
Shipp, Mrs. Leland F.....611 Jennings Landing, Battle Creek
Simpson, Mrs. Robert S.....135 Shadywood Lane, Battle Creek
Slagle, Mrs. George W.....1702 Capital Ave., S.W., Battle Creek
Sleight, Mrs. James E.....R.R. #3, Box 65, Battle Creek
Sleight, Mrs. R. D.....108 Frelinghuysen, Battle Creek
Smith, Mrs. Joseph S.....Vets. Adm. Hosp., Battle Creek
Stadle, Mrs. Wendell H.....607 Jennings Landing, Battle Creek
Stephenson, Mrs. C. Douglas.....121 Laurel Dr., Battle Creek
Stiefel, Mrs. Richard A.....260 WahWahTaySee Way, Battle Creek
Tazelaar, Mrs. Myron A.....601 Hill Rd., Marshall
VanCamp, Mrs. Elijah.....16 Everett, Battle Creek
Verity, Mrs. Lloyd E.....36 Parkside Dr., Battle Creek
Walters, Mrs. John F.....265 Sherman Rd., Battle Creek
Walters, Mrs. Wm. D.....70 Lynwood Dr., Battle Creek
Wemmer, Mrs. Keith S.....94 Barney Blvd., Battle Creek
Wencke, Mrs. Carl G.....127 Park Place, Battle Creek
Winslow, Mrs. Sherwood B.....20 Hiawatha Dr., Battle Creek
Worgess, Mrs. Duane R.....R.R. #1, Box 270x, Battle Creek
Yannitelli, Mrs. S. A.....28 Woodmer Lane, Battle Creek
Zaplitny, Mrs. Roman B...34 Ardmoor Dr., Battle Creek
Zheutlin, Mrs. Bertram.....164 W. Hamilton Lane, Battle Creek
Zindler, Mrs. George A.....R.R. #3, Box A 75, Bellvue

CHIPPEWA-MACKINAC COUNTIES

Allott, Mrs. Hugh R...607 Sheridan Dr., Sault Ste. Marie
Blain, Mrs. James G.....130 Park Place, Sault Ste. Marie
Blair, Mrs. H. Milton.....611 Summitt, Sault Ste. Marie
Cantwell, Mrs. Earl E.....330 Carrie St., Sault Ste. Marie
Clausen, Mrs. Claire H...310 Lakeshore, Sault Ste. Marie
Doyle, Mrs. .....Hessel
Finlayson, Mrs. Donald D.....903 Prospect, Sault Ste. Marie
Hamel, Mrs. Herbert.....120 Keightley, St. Ignace
Howe, Mrs. Donald C...3218 Lakeshore, Sault Ste. Marie
Mackie, Mrs. T. B.....Mission Rd., Sault Ste. Marie
Mertaugh, Mrs. Wm. F...408 Cedar St., Sault Ste. Marie
Montgomery, Mrs. Benj. T.....U. S. 2, Sault Ste. Marie
Rhind, Mrs. Earl S.....Riverside Dr., Sault Ste. Marie
Scott, Mrs. D. F.....506 Ravine St., Sault Ste. Marie
Trapasso, Mrs. Tony J.....Mission Rd., Sault Ste. Marie
Wallen, Mrs. LeRoy J...410 Dawson St., Sault Ste. Marie
Venier, Mrs. Anton G.....1021 Parnell, Sault Ste. Marie
Yale, Mrs. I. V.....408 Carrie St., Sault Ste. Marie

CLINTON COUNTY

Geib, Mrs. O. F.....Carson City
Grost, Mrs. James.....110 S. Oakland, St. Johns
Henthorn, Mrs. A. C.....1058 Ottawa, St. Johns
McWilliams, Mrs. Wm. B.....210 S. Maple, Maple Rapids
Russell, Mrs. Sherwood.....104 N. Oakland, St. Johns
Scott, Mrs. James S.....1281 Webb Rd., DeWitt
Slagh, Mrs. E. M.....217 S. Ovid, Elsie
Smith, Mrs. F. W.....205 W. State, St. Johns
Stephenson, Mrs. W. F.....501 E. Walker, St. Johns
Stoller, Mrs. P. F..... St. Johns S.E.

DIRECTORY OF MSMS WOMAN'S AUXILIARY

DELTA-SCHOOLCRAFT COUNTIES

Anderson, Mrs. Francis.....1012 S. 11th, Escanaba
Boyce, Mrs. Donald.....1401 1st Ave. S., Escanaba
Dehlin, Mrs. James R.....1225 Minnesota, Gladstone
Frenn, Mrs. Mae.....1701 10th Ave. S., Escanaba
Groos, Mrs. Louis.....825 Lakeshore Dr., Escanaba
Hult, Mrs. Otto.....621 Wisconsin, Gladstone
Jenke, Mrs. Albert.....738 Lakeshore Dr., Escanaba
LeMire, Mrs. Donald.....1811 Lakeshore Drive, Escanaba
LeMire, Mrs. Wm.....318 Lakeshore Dr., Escanaba
Lindquist, Mrs. Norman.....1815 Lakeshore, Escanaba
Maniaci, Mrs. George.....1224 Wisconsin, Gladstone
McInerney, Mrs. Thomas.....1616 16th Ave. S., Escanaba
Nagy, Mrs. Charles.....Box 108, Bark River
Olson, Mrs. Carl.....619 Minneapolis, Gladstone
Ryde, Mrs. Robt.....750 Lake Shore Dr., Escanaba
Walsh, Mrs. Mary.....800 Lake Shore Dr., Escanaba
Waters, Mrs. Duane.....358 Lake, Manistique
Wehner, Mrs. Merle.....101 Lake, Manistique
Whipple, Mrs. Arno.....315 Ogden, Escanaba

DICKINSON-IRON COUNTIES

Addison, Mrs. Earl.....601 State St., Crystal Falls
Alexander, Mrs. W. H.....431 East C St., Iron Mountain
Anderson, Mrs. D. T.....408 Hamilton, Kingsford
Carlson, Mrs. Ralph.....615 East C St., Iron Mountain
Cecconi, Mrs. R. D.....520 West D, Iron Mountain
Cooper, Mrs. C. A.....407 3rd, Stambaugh
Dittrich, Mrs. R. J.....732 Hamilton, Iron Mountain
Gladstone, Mrs. Wm.....Norway
Huron, Mrs. W. H.....215 West E St., Iron Mountain
Irvine, Mrs. L. E.....326 Genesee, Iron River
Jacobs, Mrs. Donald.....1028 W. Huggitt, Iron Mountain
MacEacheran, Mrs. H. D.....401 East C St., Iron Mountain
Palm, Mrs. E. T.....412 Superior, Crystal Falls
Retallick, Mrs. R. C.....621 W. Genesee, Iron River
Schmutzler, Mrs. Walter.....625 Wilson, Kingsford
Schroeder, Mrs. John.....1111 Stockbridge, Iron Mountain
Smith, Mrs. D. R.....817 W. Brown, Iron Mountain

EATON COUNTY

Arner, Mrs. Fred L.....703 W. Capitol, Bellevue
Brown, Mrs. B. Philip.....337 S. Cochran, Charlotte
Carothers, Mrs. Daniel.....243 S. Sheldon, Charlotte
Cook, Mrs. J. Max.....404 W. Harris, Charlotte
DeLand, Mrs. C. LeRoy.....8333 Hall Rd., Bellevue
Hannah, Mrs. Harry W.....Clinton Trail, Charlotte
Landick, Mrs. Robt.....1484 N. Cochran, Charlotte
Matthews, Mrs. Roy W., Jr.....W. Foote St., Charlotte
Meinke, Mrs. Albert H.....229 Holmes St., Eaton Rapids
Myers, Mrs. A. W.....229 Potterville Rd., Potterville
Riley, Mrs. Joseph.....815 N. Sheldon, Charlotte
Severener, Mrs. Lester G.....608 W. Stoddard, Charlotte
Sherman, Mrs. Eber B.....612 State St., Eaton Rapids
VanArk, Mrs. Bert.....511 Hale St., Eaton Rapids
VanArk, Mrs. Herman.....410 Blake, Eaton Rapids
Willits, Mrs. C. O.....127 Upland, Charlotte

GENESEE COUNTY

Adams, Mrs. Burnell H.....609 S. Lynch, Flint
Adams, Mrs. Chester H.....610 Grand Blanc Rd., Grand Blanc
Anderson, Mrs. Harley H.....8212 N. Jennings Rd., Mt. Morris
Anderson, Mrs. John L.....6227 River Rd., Flushing
Anderson, Mrs. Robt. E.....4115 Greenbrook Lane, Flint
Andrews, Mrs. Nelson A.....310 E. Main, Flushing
Anthony, Mrs. George E.....912 Beard St., Flint
Backus, Mrs. Glenn R.....3131 Westwood Pkwy., Flint
Baird, Mrs. Winston C.....1818 Ramsey, Flint
Bald, Mrs. Frederick W.....1502 Linwood, Flint
Barbour, Mrs. Fleming A.....2015 Lincoln Dr., Flint
Baske, Mrs. Franklin W.....923 Maxine, Flint
Batdorf, Mrs. John W.....1925 Park Forest Dr., Flint
Batdorf, Mrs. Joseph..6068 West View Dr., Grand Blanc
Bateman, Mrs. Lawrence G.....1708 E. Second St., Flint
Beck, Mrs. Douglas R.....1450 Country View Lane, Flint
Beckner, Mrs. Eugene B.....2214 Adams Ave., Flint
Benkert, Mrs. Jack E.....6211 Lake Forest Dr., Grand Blanc
Benson, Mrs. John C.....1410 E. Court St., Flint
Berman, Mrs. Harry.....927 Beard, Flint
Bernstein, Mrs. Eli N.....1809 Windsor Lane, Flint
Best, Mrs. John A.....3712 Brownell Blvd., Flint
Beyer, Mrs. George D.....3329 Elmwood, Flint
Bird, Mrs. Wm. G.....133 Odette, Flint
Bishop, Mrs. Donald L.....1024 Woodside Dr., Flint
Bogart, Mrs. Leon R.....1125 South Dr., Flint
Boles, Mrs. Wm. P.....2946 Circle Dr., Flint
Branch, Mrs. Hira E.....1014 Woodside, Flint
Bryant, Mrs. Donald R.....3109 Mallery, Flint
Buchanan, Mrs. Gerald.....3258 M-87, Holly
Buchanan, Mrs. Wm. F.....902 S. LeRoy, Fenton
Chambers, Mrs. Myrton S...3402 Westwood Pkwy., Flint
Charters, Mrs. John.....11089 Fenton Rd., Fenton
Chase, Mrs. Wm. D.....1318 N. Ballenger Hwy., Flint
Clark, Mrs. Robt. L.....1022 Kensington, Flint
Collins, Mrs. James I.....G-1128 N. Dye Rd., Flint
Colwell, Mrs. Clifford W.....2011 Briar Hill, Flint
Conover, Mrs. George V.....G-1152 Dye Rd., Flint
Conover, Mrs. McClellan B.....1209 Kensington, Flint
Conover, Mrs. Thaddus S.....2112 Radcliffe, Flint
Coriasso, Mrs. Louis B.....614 Odette, Flint
Coyne, Mrs. Kenneth M.....2721 Clement, Flint
Credille, Mrs. Barney A.....2020 E. Second St., Flint
Curry, Mrs. George J.....3021 Westwood Pkwy., Flint
Curtin, Mrs. John H.....915 E. Court St., Flint
Cutler, Mrs. Garnet C.....3130 Concord, Flint
Davis, Mrs. Robt. C.....407 Fremont, Flint
Dawson, Mrs. Ralph E.....1617 Linwood, Flint
Day, Mrs. John M.....810 S. Ballenger, Apt. 26, Flint
DelZingro, Mrs. Nicholas.....328 N. Main, Davison
Dickstein, Mrs. Bernard.....1110 Hamilton Ave. W., Flint
Dimond, Mrs. Edwin.....5046 McCandlish Rd., Grand Blanc
Dodds, Mrs. Max.....1718 Kenwood, Flint
Dooley, Mrs. James.....2019 Gold Ave., Flint
Dorsey, Mrs. Philip W.....1334 W. Dye Rd., Flint
Drewyer, Mrs. Glenn E.....5237 W. Reid Rd., Swartz Creek
Dykewicz, Mrs. Richard A.....3221 Clement, Flint
Eaton, Mrs. Wayne L.....1703 Crescent Dr., Flint
Eichhorn, Mrs. Ernest M.....1301 Riverdale Dr., Flint

Eickhorst, Mrs. Thomas N.....2562 Nolen Dr., Flint
Elliot, Mrs. Hardie B.....2380 Nolen Dr., Flint
Engelman, Mrs. Raymond M.....3810 Sherwood, Flint
Ettinger, Mrs. Ralph D.....409 East St., Fenton
Fan, Mrs. Quincy C.....2526 Mountain, Flint
Farah, Mrs. Ben S.....342 Bradley, Apt. 142 B, Flint
Farhat, Mrs. Maynard M.....1901 Hampden Rd., Flint
Fee, Mrs. Manson G.....1002 Maxine, Flint
Finkelstein, Mrs. Theodore.....401 Lafayette, Flint
Flynn, Mrs. Southard T.....2354 Nolen Dr., Flint
Forrer, Mrs. Graydon R.....408 Balsam Dr., Davison
Gelenger, Mrs. Stephen M.....2125 Detroit St., Flint
Gleason, Mrs. Notery A.....1309 Blanchard, Flint
Golden, Mrs. H. Maxwell.....1511 Woodcroft St., Flint
Gorne, Mrs. Saul S.....1009 Woodside Dr., Flint
Grady, Mrs. Donald R.....1515 Woodslea, Flint
Griffin, Mrs. Ernest P.....1505 Arrow Lane, Flint
Grover, Mrs. Harold F.....3509 Norwood Dr., Flint
Guile, Mrs. Gurdon S.....1621 Dupont, Flint
Gumpper, Mrs. C. R.....1917 Park Forest, Flint
Gutow, Mrs. Isadore H.....3020 Westwood Pkwy., Flint
Gutow, Mrs. Julius J.....3759 Sunset Dr., Flint
Guyon, Mrs. Joseph F.....G-1387 Cass Ave., Flint
Hackley, Mrs. Richard D.....422 Grace St., Flint
Hague, Mrs. Robt. F.....8231 River Rd., Flint
Harper, Mrs. Alexander W.....712 Thomson, Flint
Harper, Mrs. Robt. H.....713 Thomson, Flint
Hauser, Mrs. Frederick V.....1027 Manning Ct., Flint
Hawkins, Mrs. James E.....1914 Chelan, Flint
Hennessy, Mrs. Charles R.....1920 Hampden Rd., Flint
Hill, Mrs. Wm. T.....7212 Flushing Rd., Flushing
Hiscock, Mrs. Harold H.....2021 Briar Hill, Flint
Hockman, Mrs. Thomas A.....1513 Winona, Flint
Hodges, Mrs. Frank V.....2118 Castle Lane, Flint
Hooper, Mrs. Kendall.....3460 Hawthorne Dr., Flint
Hubbard, Mrs. Wm. B.....1205 Maxine, Flint
Hufton, Mrs. Wilfred L.....2546 Nolen Dr., Flint
Hurd, Mrs. Clayton.....300 Robert St., Fenton
Irish, Mrs. Lawrence R.....2733 Crestwood, Flint
James, Mrs. Robt. E.....1860 Hampden Rd., Flint
Jermstad, Mrs. Robt.....2121 Glendale, Flint
Johnson, Mrs. Frank D.....235 Hamilton Ave., Flint
Johnson, Mrs. Raymond E.....5173 W. Reid Rd., Swartz Creek
Judd, Mrs. Alvin E.....2912 Circle Dr., Flint
Kaufman, Mrs. Lewis D.....1617 Neome Dr., Flint
Kimbrough, Mrs. Clarence B.....1402 S. Saginaw, Flint
Kitto, Mrs. Harold J.....902 Stockdale, Flint
Knapp, Mrs. Donald D.....712 Mann, Flint
Knapp, Mrs. Wm. D.....1138 Woodside, Flint
Kretchmar, Mrs. Arthur H.....G-1135 N. Dye Rd., Flint
Kurtz, Mrs. John J.....G-2391 W. Reid Rd., Flint
Leach, Mrs. Jesse L.....1838 Owen, Flint
LeMieux, Mrs. Leslie L.....2749 Thomas, Flint
Lewis, Mrs. Thomas.....1031 Pawnee, Flint
Limbach, Mrs. David R.....1801 Chelsea Circle, Flint
Lindman, Mrs. Thomas C.....508 Fremont, Flint
Livesay, Mrs. Jackson E.....702 Blanchard Ave., Flint
Lundeen, Mrs. Richard M.....3046 Canterberry, Flint
Lusk, Mrs. John.....10114 Hagel Rd., Goodrich
Lyttle, Mrs. Sidney N.....3401 Concord, Flint
MacGregor, Mrs. Delbert M.....3315 Helber, Flint
MacKenzie, Mrs. John W.....5397 Miller Rd., Flint
Macksood, Mrs. Joseph A.....3340 Parkside Dr., Flint
Mangelsdorf, Mrs. Carl H.....4122 Brownell, Flint
Markunas, Mrs. Paul J.....5637 Leslie Ct., Flint
Marshall, Mrs. Wm.....Stall Rd., P.O. Box 885, Olympia, Wash.
Martin, Mrs. James A.....822 S. LeRoy, Fenton
Mathias, Mrs. Berton J.....1439 Autumn Dr., Flint
McLeod, Mrs. Kenneth W.....1001 Welch Blvd., Flint
McMurray, Mrs. Richard J.....3018 Begole, Flint
McTaggart, Mrs. David.....926 Beard, Flint
Mendrek, Mrs. Henry.....3224 Concord, Flint
Michael, Mrs. Sidney R.....922 Welch Blvd., Flint
Michels, Mrs. Robt. M.....409 N. McKinley Rd., Flushing
Michelson, Mrs. Richard B.....510 Kensington, Flint
Miltich, Mrs. Anthony J.....2222 Colfax, Flint
Miner, Mrs. Frederick B.....1000 E. Seventh, Flint
Moore, Mrs. Glenn.....1505 Durand, Flint
Moore, Mrs. Kenneth B.....2224 Pierce, Flint
Moore, Mrs. Wesley P.....1519 Lapeer, Flint
Morrison, Mrs. Wm. H.....1302 E. Court, Flint
Morrissey, Mrs. Vaughn H.....101 Stockdale, Flint
Mosier, Mrs. Edward C.....1730 Overhill, Flint
Murphy, Mrs. E. Grant.....1825 Chelsea Circle, Flint
Neiswander, Mrs. Paul L.....2362 Nolen Dr., Flint
Nicholls, Mrs. Wm. W.....3918 Seneca, Flint
Nitz, Mrs. Donald.....11492 Sunset Dr., Flint
Odle, Mrs. Ira D.....201 Welch Blvd., Flint
Orr, Mrs. Walter J.....13396 Enid Blvd., Flint
Osher, Mrs. Seymour L.....2113 E. Second, Flint
Parliament, Mrs. Burt A.....314 Ferndale, Flint
Paul, Mrs. Joseph E.....1650 Miller Rd., Flint
Phelps, Mrs. Lynn.....1022 Janaroy Ct., Goodrich
Phillips, Mrs. Robt. W.....2613 Thomas, Flint
Pickering, Mrs. Woodrow H.....1602 N. Ballenger, Flint
Polish, Mrs. John J.....2119 Radcliffe, Flint
Portney, Mrs. Jack E.....2509 E. Court, Flint
Pougnet, Mrs. Wm. D.....3205 Cranbrook Circle, Flint
Preston, Mrs. Otto J.....1315 Maxine, Flint
Prior, Mrs. Edward W.....707 Park St., Fenton
Purcell, Mrs. Francis L...6273 Westview Dr., Grand Blanc
Quinn, Mrs. John, Jr.....417 Greenfield, Flint
Rapport, Mrs. Richard L.....2306 Miller Rd., Flint
Rawling, Mrs. John C.....1201 Woodham Park Dr., Flint
Rawlings, Mrs. Mott.....1601 Neome Dr., Flint
Reid, Mrs. John H.....627 Campbell, Flint
Richeson, Mrs. Vern N.....702 W. Hamilton, Flint
Reith, Mrs. George F.....G-6452 Davison Rd., Davison
Rowe, Mrs. John B.....1005 Maxine, Flint
Rulney, Mrs. Max.....323 Ferndale Place, Flint
Rundles, Mrs. Walter Z., Jr.....607 Roome Ct., Flint
Rundles, Mrs. Walter Z., Sr.....G-6573 Flushing Rd., Flushing
Sandberg, Mrs. Russell G.....2030 Pierce, Flint
Scavarda, Mrs. Charles J.....2101 E. Court, Flint
Schiff, Mrs. Benton A.....3040 Parkside Dr., Flint
Schmidlin, Mrs. Robt. W.....4005 Greenbrook Lane, Flint
Schroeder, Mrs. Paul.....1422 Woodhale Dr., Flint
Schultz, Mrs. John S.....1397 Sun Terrace Dr., Flint
Schwartz, Mrs. John M.....2920 Dupont, Flint
Schwarz, Mrs. Heinz.....1222 Vincent, Flint
Seven, Mrs. Philip G.....2301 Cummings, Flint
Shantz, Mrs. Leighton O...1497 Country View La., Flint
Sheeran, Mrs. Daniel H.....610 S. Vernon, Flint
Sherwood, Mrs. Fredrick A...1814 Rockcreek Lane, Flint
Shipman, Mrs. Charles W.....602 Kensington, Flint
Simoni, Mrs. Lewis E.....702 Kensington, Flint
Sirna, Mrs. Anthony R.....2709 Thomas, Flint
Smith, Mrs. Eugene C.....916 Woodside Park Lane, Flint
Smith, Mrs. Harold O.....1952 Miller Rd., Flint
Smith, Mrs. Maurice J.....1521 Cromwell, Flint
Sniderman, Mrs. Benj. F.....3738 Norwood Dr., Flint
Sorkin, Mrs. Morris L.....4001 Greenbrook, Flint
Sorkin, Mrs. Samuel S.....1919 Miller Rd., Flint
Sparks, Mrs. Harvey V.....G-5614 Sugarbush Lane, Flint
Steffe, Mrs. Ralph S.....1618 Linwood, Flint
Steinman, Mrs. Floyd H.....2418 Nolen Dr., Flint
Stevens, Mrs. Philip K.....468 Commonwealth Ave., Flint
Stevenson, Mrs. Wm. W.....1521 Arrow Lane, Flint
Stroup, Mrs. Clayton K.....G-5208 E. Court, Flint
Sullivan, Mrs. McDermott R.....1510 Forest Hill, Flint
Thompson, Mrs. Alvin.....1601 Cromwell, Flint
Thompson, Mrs. Charles A.....4034 Donnelly, Flint
Thompson, Mrs. Jack W.....3525 Hawthorne Dr., Flint
Tuuri, Mrs. Arthur L.....1707 Greenway, Flint
VanHarn, Mrs. Raymond S.....104 Welch Blvd., Flint
Varney, Mrs. Howard L.....1309 Dye Crest Circle, Flint
Vary, Mrs. Edward P.....2472 Nolen Dr., Flint
Vaughn, Mrs. Edgar J.....628 Riverside Dr., Linden
Wade, Mrs. Franklin V.....3420 Clement, Flint
Ware, Mrs. Frank A.....902 Woodside Dr., Flint
Wark, Mrs. David R.....1315 Detroit, Flint
Weber, Mrs. Robt. M.....2602 N. Stevenson, Flint

Webster, Mrs. Robt. M.....1915 Penbrook Lane, Flint
Wentworth, Mrs. John E.....1651 Chevrolet Ave., Flint
Wheeler, Mrs. J. D.....2470 Nolen Dr., Flint
Williams, Mrs. Wm. S.....5216 S. Genesee Rd., Grand Blanc
Willoughby, Mrs. Gordon L.....2960 Mallery, Flint
Willoughby, Mrs. Leslie L.....1127 S. Water St., Marine City
Wills, Mrs. Thomas N...G-1360 N. Packard Rd., Davison
Winchester, Mrs. Walter H.....801 E. Ninth, Flint
Woughter, Mrs. Harold W.....3440 Hawthorne, Flint
Wright, Mrs. Donald R.....403 W. Court, Flint

GOGEBIC-ONTONAGON COUNTIES

Benetti, Mrs. Arthur F.....409 Pierce, Wakefield
Davidson, Mrs. Donald L.....Ramsey
Franck, Mrs. J. R.....525 Harrison St., Wakefield
Gingrich, Mrs. Wayne A.....Lake Rd., Ironwood
Gorrilla, Mrs. A. C.....516 N. Lawrence, Ironwood
Harrington, Mrs. Rex R.....104 E. Ridge St., Ironwood
Hogue, Mrs. Harold.....Ewen
Keskey, Mrs. Theodore.....205 W. Coolidge, Ironwood
Murphy, Mrs. Percy.....Ridge, Ironwood
Santini, Mrs. Florian J.....615 N. Lowell St., Ironwood
Wacek, Mrs. William H.....809 Sunset Rd., Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE-KALKASKA COUNTIES

Beall, Mrs. John G...R.F.D. #2, Box 723, Traverse City
Behan, Mrs. Gerald W.....P.O. Box 390, Traverse City
Benjamin, Mrs. Mac.....619 N. Elmwood Ave., Traverse City
Brownson, Mrs. Jay J.....Kingsley
Brownson, Mrs. Kneale.....1140 Peninsula Dr., Traverse City
Brunk, Mrs.....R.R. #1, Traverse City
Bushong, Mrs. B. B.....534 Washington, Traverse City
Cajigas, Mrs. Thomas.....101 19th St., Traverse City
Clark, Mrs. Charles D...6874 Peninsula Dr., Traverse City
Cline, Mrs. Theodore N.....U. S. 31 South, Traverse City
Cline, Mrs. Warren.....1629 S. High St., Traverse City
Dundon, Mrs. Arthur.....Box C, Traverse City
Edmonds, Mrs. Wm. T.....R.R. #1, Williamsburg
Ellis, Mrs. Claude I.....Suttons Bay
Ferguson, Mrs. J. T.....Box C, Traverse City
Fiebing, Mrs. Jack.....1109 Bay St., Traverse City
Fishbeck, Mrs. Wm. A.....622 Washington, Traverse City
Gallagher, Mrs. Wm.....Box C, Traverse City
Haberlein, Mrs. Chas.....701 Monroe Ave., Traverse City
Hall, Mrs. James W.....1431 Peninsula Dr., Traverse City
Hamilton, Mrs. Earl E...627 Ahgosa Trail, Traverse City
Hubbell, Mrs. R. J.....Lee Point Rd., R.R. #2, Suttons Bay
Huene, Mrs. Nevin.....508 State St., Traverse City
Jerome, Mrs. J. T.....609 Sixth St., Traverse City
Kitti, Mrs. Wm.....Box 186, Kalkaska
Kyselka, Mrs. Harry..East Long Lake Rd., Traverse City
Lawton, Mrs. F. L.....540 W. Seventh, Traverse City
Lieding, Mrs. Keith.....7844 Peninsula Dr., Traverse City
Lossman, Mrs. Robt.....R.R. #2, 475 Deepwater Pte., Williamsburg
Magill, Mrs. Albert.....Box C, Traverse City
McClay, Mrs. Adam C.....6330 Peninsula, Traverse City
Michaels, Mrs. Stanley L.....503 Ottawa, Elk Rapids
Milliken, Mrs. John....1435 Peninsula Dr., Traverse City
Nickels, Mrs. M. N.....R.R. #4, Box 121, Traverse City
Osterlin, Mrs. Mark F.....6223 Peninsula Dr., Traverse City
Otto. Mrs. Donald L.....225 Center Lane, Traverse City
Peterson, Mrs. Wm.....228 Huron St., Traverse City
Pike, Mrs. G. Donald.....612 Woodland, Traverse City
Power, Mrs. Frank.....521 Sixth St., Traverse City
Ramzy, Mrs. Carl.....Box C, Traverse City
Salon, Mrs. Dayton D.....216 S. Elmwood Ave., Traverse City
Scott, Mrs. John E.....536 Washington, Traverse City
Sommerness, Mrs. Martin D.....Box C, Traverse City
Sorum, Mrs. F. T.....Box C, Traverse City
Spencer, Mrs. John.....710 Birchwood, Traverse City
Steele, Mrs. Wm.....2017 E. Front St., Traverse City
Steffey, Mrs. Joseph C...1714 Apache Pass, Traverse City
Stokes, Mrs. G. Edward.....425 Sixth St., Traverse City
Swartz, Mrs. F. G.....612 Sixth St., Traverse City
Sweeny, Mrs. Bernard.....R.R. #1, Williamsburg
Thirlby, Mrs. E. L.....520 Sixth St., Traverse City
Thirlby, Mrs. Richard.....1315 Wayne St., Traverse City
Wagner, Mrs. Creighton..1802 E. Front St., Traverse City
Weih, Mrs. Jack.....5271 U. S. 31 North, Traverse City
Weitz, Mrs. Harry.....529 Monroe St., Traverse City
Wiley, Mrs. Phil.....Silver Pine Rd., Traverse City
Wilcox, Mrs. Paul.....526 W. 10th St., Traverse City
Wilson, Mrs. F.....332 W. 10th St., Traverse City
Wright, Mrs. Johnson K.....727 E. Orchard Dr., Traverse City
Young, Mrs. John.....Box C, Traverse City
Zielke, Mrs. Irwin H.....515 N. Elmwood Ave., Traverse City
Zimmerman, Mrs. J. C.....606 N. Elmwood, Traverse City

GRATIOT-ISABELLA-CLARE COUNTIES

Bedo, Mrs. A. V.....802 Gordon, Mt. Pleasant
Bergin, Mrs. J. H.....604 Woodworth, Alma
Chamberlain, Mrs. R. W...608 E. Chippewa, Mt. Pleasant
Chamichian, Mrs. S. L.....117 S. College, Mt. Pleasant
Davis, Mrs. L. L.....314½ S. Brown, Mt. Pleasant
Hammerburg, Mrs. K. H.....622 McEwan, Clare
Hedges, Mrs. F. W.....General Delivery, Edmore
Hoogerland, Mrs. C. L.....514 Iowa, Alma
Johnson, Mrs. Frank.....412 E. Broadway, Mt. Pleasant
Johnson, Mrs. P. R.....206 S. College, Mt. Pleasant
Juhnke, Mrs. L. W.....1050 E. Maple, Mt. Pleasant
Meyer, Mrs. Edwin G.....780 Argyle, Alma
Oldham, Mrs. E. S.....403 E. Saginaw, Breckenridge
Ringer, Mrs. P. H.....1007 Watson, Mt. Pleasant
Rottschafer, Mrs. J. L.....3580 N. Lawn, Alma
Silvert, Mrs. P. P.....Vestaburg
Veldhuis, Mrs. A. H.....417 S. College, Alma
Wood, Mrs. John M.....815 E. Maple St., Mt. Pleasant

HOUGHTON-KEWEENAW-BARAGA COUNTIES

Aldrich, Mrs. Addison B.....325 Harris, Hancock
Aldrich, Mrs. A. D.....U. S. 41, Chassell
Aldrich, Mrs. Leonard C.....1609 E. Houghton Ave., Houghton
Bourland, Mrs. Philip D.....134½ Calumet, Calumet
Burke, Mrs. John J.....1001 Calumet, Lake Linden
Hillmer, Mrs. Raymond E.....6 Algomah St., Painesdale
Hosking, Mrs. Frederick S.....328 Florida, Laurium
Janis, Mrs. Anton J.....200 East St., Hancock
Kolb, Mrs. Frederick E.....128 Calumet, Calumet
LaBine, Mrs. Alfred.....1019 College Ave., Houghton
Lepisto, Mrs. Victor E.....519 Lake Linden, Laurium
Levin, Mrs. Simon.....1209 College Ave., Houghton
Manthei, Mrs. Willard.....Carpenter Apts., Lake Linden
Meier, Mrs. Maurice D.....1033 Mine St., Calumet
Nolan, Mrs. Lewis E.....108 Center St., Hancock
Repola, Mrs. Kenneth L.....339 Pewabic, Laurium
Roche, Mrs. Andrew M.....240 Pewabic, Laurium
Rowe, Mrs. Kenneth.....117 Calumet, Calumet
Rupprecht, Mrs. C. H.....117 5th St., Calumet
Sandell, Mrs. Samuel T.....210 Center St., Hancock
Sloan, Mrs. Paul S.....214 Clark, Houghton
Smith, Mrs. Charles R.....E. White St., Hancock
Wickliffe, Mrs. T. P.....1167 Calumet, Calumet
Williams, Mrs. Marshall S.....1412 E. Houghton Ave., Houghton
Winkler, Mrs. Henry J.....L'Anse

HURON COUNTY

Dixon, Mrs. Ralph C.....Pigeon
Elliot, Mrs. C. S.....Pigeon
Gettel, Mrs. Roy R.....634 W. Huron St., Bad Axe
Herrington, Mrs. C. C.....203 N. Port Crescent, Bad Axe
Herrington, Mrs. Willet....219 N. Port Crescent, Bad Axe
Oakes, Mrs. C. W.....Harbor Beach
Ritsema, Mrs. John.....Sebewaing
Schuerer, Mrs. Clare A.....Pigeon
Sorenson, Mrs. Maurice.....Elkton
Steinhardt, Mrs. E. E.....403 Western Ave., Bad Axe
Thompson, Mrs. J. R.....Caseville
Turner, Mrs. P. R.....Harbor Beach
Wible, Mrs. C. F.....Sebewaing
Willits, Mrs. Robt. A.....165 N. Main St., Elkton

INGHAM COUNTY

Agate, Mrs. G. H.....1109 South Lawn, East Lansing
Aiken, Mrs. Donald J.....2250 Seminole Dr., Okemos
Alexander, Mrs. Reuben G.....Laingsburg
Altland, Mrs. John K.....R.R. #3, W. Mt. Hope Rd., Lansing
Asselin, Mrs. David C.....1001 Glenhaven, East Lansing
Badgley, Mrs. Waldo O...3249 Waverly Hills Rd., Lansing
Baker, Mrs. Thomas.....1720 Windsor Pl., Lansing
Bassett, Mrs. Robt. C.....740 Edgemont Dr., Lansing
Bauer, Mrs. Theodore I.....839 Wildwood Dr., East Lansing
Berens, Mrs. Burdette.....1434 Bassett, Lansing
Bergeon, Mrs. Milton C.....302 S. Steele, Mason
Bevez, Mrs. Frank L.....3209 S. Cambridge Rd., Lansing
Bingham, Mrs. B. Wayne.....1123 N. Hayford, Lansing
Bleil, Mrs. Eugene.....603 N. Harrison, East Lansing
Bradford, Mrs. Carl W.....832 Westlawn, East Lansing
Breakey, Mrs. Robt.....520 Westmoreland, Lansing
Briggs, Mrs. James A.....2101 Hamilton, Holt
Brown, Mrs. Fred W.....706 Britten, Lansing
Brown, Mrs. Joseph C.....218 Walnut Cir., Mason
Brubaker, Mrs. Earl W.....444 S. Verlinden, Lansing
Brucker, Mrs. K. B.....610 S. Walnut, Lansing
Burhans, Mrs. Robt. A.....973 Rosewood, East Lansing
Cairns, Mrs. Donald A.....300 S. Washington, Mason
Cameron, Mrs. W. J.....920 N. Capitol, Lansing
Carlson, Mrs. Ralph.....2710 Northwest Ave., Lansing
Carr, Mrs. E. I.....1915 Moores River Dr., Lansing
Caruso, Mrs. Joseph A.....1818 Linden, East Lansing
Casey, Mrs. Byron L.....337 Chesterfield Pkwy., East Lansing
Cheney, Mrs. Wm. D.....R.R. #2, 4530 Ethel St., Lansing
Christian, Mrs. L. G.....400 Everett, Lansing
Cipparone, Mrs. Joseph R.....2509 Boston Blvd., Lansing
Clark, Mrs. Gaius D.....1651 Sunnyside, Lansing
Clark, Mrs. Wm. E.....809 E. Ash St., Mason
Clinton, Mrs. G. R.....618 S. Jefferson, Mason
Combs, Mrs. Robt.....403 Butterfield, East Lansing
Cook, Mrs. R. J.....105 S. Jenison, Lansing
Comstock, Mrs. Howard.....724 Walbridge Dr., East Lansing
Cope, Mrs. H. E.....605 Westmoreland, Lansing
Cordes, Mrs. Jerome.....2289 Shawnee Trail, Okemos
Cowan, Mrs. John.....825 Touraine, East Lansing
Cushman, Mrs. Frank.....408 N. Sycamore, Lansing
Darling, Mrs. L. H.....431 Verlinden, Lansing
Davenport, Mrs. C. S.....219 N. Logan, Lansing
Dawe, Mrs. Charles D.....935 Rosewood, East Lansing
Dean, Mrs. Carlton.....152 Maplewood Dr., East Lansing
DeVries, Mrs. C. F.....Delta River Dr., R.R. #1, Lansing
Drolett, Mrs. Donald.....2408 Arlington Rd., Lansing
Drolett, Mrs. Fred.....1623 Inverness, Lansing
Drolett, Mrs. Lawrence A.....228 S. Jenison, Lansing
Dunkel, Mrs. John F.....4294 Oakwood Dr., Okemos
Dunn, Mrs. F. M.....507 Woodland Pass, East Lansing
Feeney, Mrs. Kenneth J.....822 Durant, Lansing
Feurig, Mrs. James S.....321 Kensington Rd., East Lansing
Finch, Mrs. Russell L.....420 S. Walnut St., Lansing
Folkers, Mrs. Leonard....666 Butterfield Dr., East Lansing
Fortino, Mrs. S. P.....1000 Cooledge, East Lansing
Fosget, Mrs. Wilbur.....210 E. Hillsdale, Lansing
Foster, Mrs. Wm. L.....343 N. Harrison Rd., East Lansing
French, Mrs. Horace L.....Delta River Dr., Lansing
Gardner, Mrs. Cyrus.....1815 Moores River Dr., Lansing
Garlinghouse, Mrs. A. J.....4689 Woodcraft Dr., Okemos
George, Mrs. Harry.....1006 Lantern Hill Dr., East Lansing
Govons, Mrs. Sidney R.....1729 Cadillac, Lansing
Hames, Mrs. R. E.....1521 Greenview, East Lansing
Hanna, Mrs. Rodger.....2698 Heather Dr., East Lansing
Harris, Mrs. H. W.....1400 Wellington Rd., Lansing
Harrison, Mrs. Wm.....1306 Hyland, Lansing
Harrold, Mrs. J. F.....2812 S. Waverly, R.R. #3, Lansing
Hatton, Mrs. Richard.....1218 Theodore, Lansing
Hayes, Mrs. Robt. E.....1622 Sunnyside, Lansing
Hayford, Mrs. Wm. D.....1006 Wildwood, East Lansing
Haze, Mrs. H. A.....Hotel Olds, Lansing
Heald, Mrs. Gordon.....830 Walbridge, East Lansing
Heckert, Mrs. Frank....Delta River Dr., R. #1, Box 199. Lansing
Heckert, Mrs. J. K.....1418 E. Grand River, East Lansing
Heerdt, Mrs. Mark E.....4550 Ottawa Dr., Okemos
Henderson, Mrs. Norman D.....826 Sunset Lane, East Lansing
Henry, Mrs. Robt. A.....2519 Belaire Dr., Lansing
Hermes, Mrs. E. J.....604 W. Willow, Lansing

Heustis, Mrs. Albert E.....410 Cowley, East Lansing
Hiscoe, Mrs. D. Bonta.....152 Maplewood, East Lansing
Himmelberger, Mrs. R. J.....227 West St., Lansing
Hodges, Mrs. Kenneth.....421 West St., Lansing
Hoffer, Mrs. Wm. E.....327 Shepard, Lansing
Holland, Mrs. Charles F.....166 Orchard, East Lansing
Hoyt, Mrs. John C.....4438 Keller Rd., Holt
Huggett, Mrs. Clare C.....1531 Osborn Rd., Lansing
Isbister, Mrs. John.....104 S. Jenison, Lansing
Jacob, Mrs. S. Sprig.....320 Curtis Rd., East Lansing
Johnson, Mrs. David.....2033 Pawnee Trail, Okemos
Johnson, Mrs. K. H.....1539 Spencer, Lansing
Johnson, Mrs. Richard.....623 Walbridge Rd., East Lansing
Jones, Mrs. F. A., Sr.....1025 Roxburgh, East Lansing
Jones, Mrs. F. A., Jr.....1025 Roxburgh, East Lansing
June, Mrs. Robert C.....809 W. Ionia, Lansing
Kahn, Mrs. David.....1519 Pershing, Lansing
Kalmbach, Mrs. Roland E.....1600 Wellington Rd., Lansing
Keim, Mrs. C. D.....1415 W. Kalamazoo, Lansing
Kelley, Mrs. Wm.....1615 W. Ottawa, Lansing
Klunzinger, Mrs. W. R.....810 Roxburgh, East Lansing
Kozak, Mrs. Jerome.....4573 Nakoma Dr., Okemos
Kraft, Mrs. L. C.....209 S. Main, Leslie
Landy, Mrs. G. R.....1023 N. Jenison, Lansing
Lange, Mrs. P. F.....1302 Pershing Dr., Lansing
Larson, Mrs. Homer.....1236 Downer, Lansing
LeDuc, Mrs. Don M.....405 University Dr., East Lansing
Leeder, Mrs. Frederick.....707 W. Jolly Rd., Lansing
Leshock, Mrs. J. C.....419 Clarendon, East Lansing
LeVett, Mrs. H. L.....1108 Southlawn, East Lansing
Lewis, Mrs. Clayton, Jr.....727 Audubon Rd., East Lansing
Linnell, Mrs. Paul C.....4180 Dallas, Holt
Long, Mrs. Charles.....1715 Roseland, East Lansing
Loree, Mrs. M. C.....1615 Abbott Rd., East Lansing
Loughrin, Mrs. Ted.....1630 Woodside Dr., East Lansing
Lucas, Mrs. T. A.....2826 Cambridge Rd., Lansing
Malcolm, Mrs. Henry E.....1049 Glenhaven, East Lansing
McCorvie, Mrs. C. R.....1410 Old Canton Lane, East Lansing
McCorvie, Mrs. Donald.....325 S. Circle, Williamston
McCrumb, Mrs. Ray.....1216 Parkdale, Lansing
McGillicuddy, Mrs. Robt. J.....528 E. Oakwood East Lansing
McGillicuddy, Mrs. Oliver.....407 Walbridge Dr., East Lansing
McIntyre, Mrs. J. E.....600 S. Grand, Lansing
McNamara, Mrs. Edward B.....804 W. Ottawa, Lansing
Meade, Mrs. Wm. H.....535 Ardson Rd., East Lansing
Melick, Mrs. Richard C.....4334 Mar-Moor Dr., Lansing
Menzies, Mrs. C. G.....734 Linden, East Lansing
Miller, Mrs. Willard J.....1204 S. Genesee, Lansing
Monfort, Mrs. Robt.....137 Durand, East Lansing
Morrow, Mrs. R. J.....412 N. Capitol, Lansing
Neering, Mrs. James C.....1316 N. Genesee Dr., Lansing
Neuman, Mrs. John.....235 Leland Pl., Lansing
Niland, Mrs. Paul.....1308 Old Hickory Lane, East Lansing
Nobel, Mrs. Rudolph.....2711 E. Grand River, Lansing
Ochsner, Mrs. Paul.....312 Cambridge Rd., Lansing
Packer, Mrs. John.....1206 Thomas L Pkwy., Lansing
Paine, Mrs. Wm.....724 Rosewood, East Lansing
Palmer, Mrs. R. E.....535½ S. Capitol, Lansing
Parker, Mrs. Earl.....207 E. Bellvue, Leslie
Peets, Mrs. R. C.....2266 Shawnee Trail, Okemos
Philips, Mrs. David.....333 N. Chestnut, Lansing
Phillips, Mrs. R. H.....1259 W. Grand River 42C, East Lansing
Pomeroy, Mrs. R. W.....775 Collingwood, East Lansing
Prall, Mrs. H. J.....214 W. Main, Lansing
Randall, Mrs. O. M.....7557 W. Saginaw, Grand Ledge
Richards, Mrs. Frank.....311 Kensington Rd., East Lansing
Robson, Mrs. E. J.....728 Audubon, East Lansing
Rollstin, Mrs. Robt. A.....4796 Ardmore, Box 107, Okemos
Rozan, Mrs. Josef S.....1142 Blake Ave., Lansing
Ruhmkorff, Mrs. R. F.....1060 Glenhaven, East Lansing
Rulison, Mrs. J. G.....2100 Colonial Plaza, Lansing
Saenz, Mrs. Hugo R.....1718 Loraine, Lansing
Sander, Mrs. John.....4275 Dobie Rd., Okemos
Saunders, Mrs. Meredith R.....921 Cherry Lane, East Lansing
Scallin, Mrs. J. F.....221 Kensington Rd., East Lansing
Schmidt, Mrs. Harry J.....1416 N. Hayford, Lansing
Schultz, Mrs. Arthur.....4646 Ottawa Rd., Okemos
Scott, Mrs. James S.....1281 Webb Rd., R.R. #2, DeWitt
Shapiro, Mrs. H. D.....1527 Old Mill Rd., East Lansing
Sharp, Mrs. M. S.....950 Audubon Rd., East Lansing
Shaw, Mrs. Milton.....415 West St., Lansing
Sherman, Mrs. George.....504 Cowley, East Lansing
Sichler, Mrs. H. G.....443 Clifton Blvd., East Lansing
Silverman, Mrs. I. E.....1602 Clifton, Lansing
Sleight, Mrs. Justin L.....3001 Westchester Rd., Lansing
Smith, Mrs. A. V.....S. Jackson Rd., Mason
Smookler, Mrs. Bernard.....1139 Gould Rd., Lansing
Snell, Mrs. D. M.....312 N. Harrison, East Lansing
Spagnuolo, Mrs. A. J.....1718 Wellington Rd., Lansing
Spalding, Mrs. Roland.....5004 Tressa Dr., Lansing
Spencer, Mrs. C. T.....1134 Southlawn, East Lansing
Stehman, Mrs. Vernon A.....2062 Tomahawk Circle, Okemos
Stiles, Mrs. Frank.....615 Northlawn, East Lansing
Stillwell, Mrs. George.....602 Grove, East Lansing
Stimson, Mrs. Paul R.....R.R. #4, Box 412, Lansing
Stone, Mrs. Benj. J.....736 Rosewood, East Lansing
Stow, Mrs. Robt.....1063 Rosewood, East Lansing
Strauss, Mrs. P. C.....3813 W. Willow, Lansing
Stringer, Mrs. C. J.....1701 W. Kalamazoo, Lansing
Stucky, Mrs. G. C.....624 W. Ottawa, Lansing
Sundell, Mrs. E. C.....2030 Pawnee Trail, Okemos
Swartz, Mrs. F. C.....500 Kedzie Dr., East Lansing
Tamblyn, Mrs. F. W.....Waverly Rd. R.R. #3, Lansing
Thaden, Mrs. D. W.....954 Delbridge, East Lansing
Tien, Mrs. H. C.....2721 E. Grand River, Lansing
Thimmig, Mrs. D. W.....4598 Arrowhead, Okemos
Toothaker, Mrs. Kenneth.....1609 W. Michigan, Lansing
Towne, Mrs. L. C.....701 Britten, Lansing
Trescott, Mrs. R. F.....218 Chesterfield, East Lansing
Troost, Mrs. F. L.....4395 W. Delhi, Holt
VanderZalm, Mrs. T. P.....1452 Cambridge Rd., Lansing
Wadley, Mrs. Ralph.....930 Roxburgh, East Lansing
Wainright, Mrs. J. W.....433 Haslett Rd., East Lansing
Walker, Mrs. Leo.....4225 Apple Tree Lane, Lansing
Wellman, Mrs. John M.....1809 Hillsdale W., Lansing
Wilenski, Mrs. Thomas.....527 W. Oakwood, East Lansing
Willson, Mrs. Howard S.....435 McPherson, Lansing
Wolcott, Mrs. Lester E.....3555 W. Arbutus, Okemos
Worthington, Mrs. Ralph.....717 Britten, Lansing
Zick, Mrs. Gerald A.....200 Gunson, East Lansing

IONIA-MONTCALM COUNTIES

Buck, Mrs. Jack H.....517 N. Division St., Ionia
Campbell, Mrs. Richard E.....340 E. Main St., Ionia
Hoffs, Mrs. Marinos A.....Lake Odessa
Kopchick, Mrs. Joseph.....Muir
Leider, Mrs. Thomas R.....448 Baldie St., Ionia
Slagh, Mrs. Milton E.....Saranac
Smith, Mrs. Robt. O.....505 W. Fargo St., Ionia
Socha, Mrs. Edmund S.....North State Rd., Ionia
Robertson, Mrs. Perry C.....327 Center St., Ionia
Tannheimer, Mrs. John F.....138 E. Washington St.,

JACKSON COUNTY

Adams, Mrs. E. W.....128 S. Brown St., Jackson
Ahronheim, Mrs. J. H.....1410 Greenwood, Jackson
Anderson, Mrs. N. B.....815 Briarcliff, Jackson
Appel, Mrs. Saul.....3040 Kibby Rd., Jackson
Baker, Mrs. George.....Parma
Beckwith, Mrs. S. A.....Stockbridge
Brashares, Mrs. Z. A.....Brooklyn
Bullen, Mrs. G. R.....418 Third St., Jackson
Cooley, Mrs. C. W.....315 S. Wismer St., Jackson
Cooley, Mrs. R. W.....141 E. Robinson, Jackson
Corley, Mrs. Cecil.....800 Crescent, Jackson
Corley, Mrs. E. H.....3923 Kathmar Dr., Jackson
Corley, Mrs. Robt.....1350 Kathmar Dr., Jackson
Cox, Mrs. Ferdinand.....1601 Fourth St., Jackson
Daly, Mrs. Byrne.....709 Oakridge Dr., Jackson
Davenport, Mrs. Bruce.....Spring Arbor
DeMay, Mrs. C. E.....901 Albright, Jackson
DeMay, Mrs. J. D.....1820 Herkimer, Jackson
Deming, Mrs. R. C.....1406 W. Washington, Jackson
Dickman, Mrs. H. M.....Hudson
Faust, Mrs. W. L.....Grass Lake
Filip, Mrs. H. K.....755 W. Michigan, Jackson
Finton, Mrs. R. E.....1812 Grovedale, Jackson
Finton, Mrs. W. L.....1502 Carlton Blvd., Jackson
Growt, Mrs. B. N.....Addison
Hackett, Mrs. T. E.....1124 Barr St., Jackson
Hackett, Mrs. T. L.....3160 Reynolds Rd., Jackson
Hanft, Mrs. C. F.....Springport
Hardie, Mrs. G. C.....218 Fourth St., Jackson
Hart, Mrs. V.....518 S. Brown, Jackson
Hicks, Mrs. G. C.....1009 Wildwood, Jackson
Holst, Mrs. J. B.....1437 Wickwire, Jackson
Hunt, Mrs. M. E.....2534 Francis St., Jackson
Joerin, Mrs. W. A.....734 W. Franklin, Jackson
Karr, Mrs. J. F.....2535 Spring Arbor Rd., Jackson
Keefer, Mrs. A. H.....Concord
Kempton, Mrs. G. B.....748 Crescent, Jackson
Kiessling, Mrs. A. J.....1850 Schaffer Dr., Jackson
Kline, Mrs. Starr L.....3525 Jefferson Rd., Clark Lake
Kobs, Mrs. R. J.....513 Seventeenth, Jackson
Kraft, Mrs. L. C.....Leslie
Kudner, Mrs. D. F.....1300 W. Franklin, Jackson
Lake, Mrs. E. C.....786 Bloomfield, Jackson
Lake, Mrs. W. H.....1917 Parkwood Way, Jackson
Landron, Mrs. D. L.....4633 Page Ave., Michigan Center
Lenz, Mrs. C. R.....1833 Shoemaker Dr., Jackson
Lewis, Mrs. E. F.....609 S. Wisner, Jackson
Linden, Mrs. V. E.....5712 Browns Lake Rd., Jackson
Ludwick, Mrs. J. E.....6220 Brooklyn Rd., Jackson
Ludwick, Mrs. John E.....405 S. Durand St., Jackson
Luh, Mrs. E. K.....135 E. Coler, Jackson
McGarvey, Mrs. W. E.....319 S. Higby, Jackson
McLaughlin, Mrs. M. J.....6271 Browns Lake Rd., Jackson
McLaughlin, Mrs. John M.....Jackson
McLauthlin, Mrs. H. B.....200 S. Higby, Jackson
McQuillan, Mrs. S. P.....206 S. Wisner, Jackson
Meads, Mrs. J. R.....1714 Fourth St., Jackson
Medlar, Mrs. R. E.....1202 W. Franklin, Jackson
Morelli, Mrs. Lorenzo.....507 Seventeenth St., Jackson
Muhich, Mrs. R. A.....2466 Emmons Rd., Jackson
Munro, Mrs. N. D.....407 Edwards, Jackson
Murphy, Mrs. B. M.....710 Bloomfield, Jackson
Newton, Mrs. R. E.....3124 Horton Rd., Jackson
Oleksy, Mrs. S. P.....1415 W. Washington, Jackson
Olsen, Mrs. Lloyd L.....1410 W. Washington, Jackson
Otis, Mrs. G. L.....922 Oakgrove Rd., Jackson
Oster, Mrs. H. L.....1218 Greenwood, Jackson
Parker, Mrs. L. E.....Leslie
Payne, Mrs. A. K.....914 S. Brown, Jackson
Phillips, Mrs. George.....326 W. Cortland, Jackson
Porter, Mrs. H. W.....1008 Carlton Blvd., Jackson
Pray, Mrs. F. F.....310 Steward, Jackson
Preston, Mrs. J. A.....1011 S. Thompson, Jackson
Rice, Mrs. J. W.....705 Bloomfield, Jackson
Rice, Mrs. R. G.....824 Browns Lake Rd., Jackson
Riley, Mrs. P. A., Jr.....1409 W. Franklin, Jackson
Riley, Mrs. P. A.....205 W. Franklin, Jackson
Sargent, Mrs. L. E.....114 N. Thompson, Jackson
Sautter, Mrs. W. A.....Horton
Scheurer, Mrs. C. A.....Manchester
Schmidt, Mrs. T. E.....1414 W. Washington, Jackson
Scott, Mrs. John A.....119 S. Bowen, Jackson
Shaeffer, Mrs. A. M.....1000 Browns Lake Rd., Jackson
Shaeffer, Mrs. L. D.....3414 Caroline, Jackson
Sher, Mrs. David B.....956 Cooper, Jackson
Sill, Mrs. H. W.....214 S. Durand, Jackson
Sirhal, Mrs. A. M.....5160 North Shore Dr., Clark Lake
Smith, Mrs. D. A.....1205 W. Washington, Jackson
Stackable, Mrs. W. R.....844 Woodbine, Jackson
Stewart, Mrs. Lewis L.....220 Summit, Jackson
Stewart, Mrs. M. N.....216 Stewart, Jackson
Stolberg, Mrs. Carl A.....828 Oakridge Dr., Jackson
Stone, Mrs. E. L.....1011 S. Brown, Jackson
Tate, Mrs. C. E.....817 Westwood, Jackson
Taylor, Mrs. R. V.....800 S. Grinnell, Jackson
Thalner, Mrs. L. F.....609 W. Michigan Ave., Jackson
Thayer, Mrs. E. A.....2018 Spring Arbor Rd., Jackson
Thompson, Mrs. T. B.....200 Fourth St., Jackson
Torwick, Mrs. E. T.....1107 Union, Jackson
Towsend, Mrs. J. W.....108 Hague, Vandercook Lake
VanSchoick, Mrs. Frank.....1301 Greenwood, Jackson
VanSchoick, Mrs. John.....Hanover
VanWagnen, Mrs. F. I.....1232 First St., Jackson
Vivirski, Mrs. E. E.....603 S. Elm St., Jackson
Weddon, Mrs. E. R.....Stockbridge
Wholihan, Mrs. J. W.....602 W. Michigan Ave., Jackson
Wickham, Mrs. W. A.....1710 Herkimer, Jackson
Wille, Mrs. W. S.....1346 Kathmar Dr., Jackson

KALAMAZOO COUNTY

Alexander, Mrs. C. A.....118 W. North St., Kalamazoo
Andrews, Mrs. Sherman E.....2326 Springhill Dr., Kalamazoo
Appel, Mrs. Ben.....516 Montrose Ave., Kalamazoo
Appel, Mrs. Wm.....1906 Dorchester, Kalamazoo
Appell, Mrs. L. E.....108 Mill St., Vicksburg
Banner, Mrs. Lawrence R.....1405 Long Rd., Kalamazoo
Barak, Mrs. Herbert G.....2122 Chevy Chase, Kalamazoo
Barry, Mrs. Manley L.....252 E. Lovell, Kalamazoo
Bennett, Mrs. Keith F.....2760 Bronson Blvd., Kalamazoo
Betz, Mrs. Eldean G.....1521 Timberlane Dr., Kalamazoo
Birch, Mrs. Wm. G.....1539 Grand Ave., Kalamazoo
Borgman, Mrs. Wallace.....2252 Chevy Chase Blvd., Kalamazoo
Boyd, Mrs. Robt. E.....1311 Banor St., Kalamazoo
Breneman, Mrs. James C.....25 Pearl St., Galesburg
Brue, Mrs. Peter P.....1009 Cambridge Dr., Kalamazoo
Burbidge, Mrs. Earl L.....359 Park Ave., Kalamazoo
Burrell, Mrs. Robt. B.....2017 Hillsdale Ave., Kalamazoo
Callander, Mrs. C. Glen.....4418 Lake Forest Dr., Kalamazoo
Cashen, Mrs. Russell.....1810 Greenbriar, Kalamazoo
Chrest, Mrs. C. P.....2740 Bronson Blvd., Kalamazoo
Clement, Mrs. F. L.....2227 S. Rose St., Kalamazoo
Conrad, Mrs. Maynard M.....1509 Timberlane Dr., Kalamazoo
Cooper, Mrs. Paul F.....4326 Oakland Dr., Kalamazoo
Cox, Mrs. Franklin.....5125 Windy Ridge Dr., Kalamazoo

Crawford, Mrs. Kenneth L.....1532 Grand Ave., Kalamazoo
Creager, Mrs. Ray O.....1218 Bronson Circle, Kalamazoo
Cretsinger, Mrs. Francis C.....2012 Chevy Chase Blvd., Kalamazoo
Currier, Mrs. R. Keith.....1223 Kilgore Rd., Kalamazoo
Dana, Mrs. Robt. L.....2240 Sheffield Dr., Kalamazoo
Decker, Mrs. Wm. A.....1145 Oakland Dr., Kalamazoo
Delbert, Mrs. Stewart G.....410 Edgemoor, Kalamazoo
DeLong, Mrs. Robt. E.....2215 Crane Ave., Kalamazoo
DePree, Mrs. Harold E.....2423 Russet Dr., Kalamazoo
Dew, Mrs. Robt. R.....2252 Sheffield Dr., Kalamazoo
Doezema, Mrs. Edward R.....802 Grand Pre., Kalamazoo
Dick, Mrs. Leo A.....2311 Lorraine, Kalamazoo
Dowd, Mrs. Bennard J.....1415 Henderson Dr., Kalamazoo
Doyle, Mrs. Fred M.....3240 Bronson Blvd., Kalamazoo
Dugger, Mrs. James A.....2755 Bronson Blvd., Kalamazoo
Endrei, Mrs. Ariszted.....Box A State Hosp., Kalamazoo
Estill, Mrs. Donald V.....1605 N. Church, Kalamazoo
Fast, Mrs. Ralph B.....1425 Low Rd., Kalamazoo
Fath, Mrs. Aigust F.....5029 Angling Rd., Kalamazoo
Ferguson, Mrs. Robt. K.....2503 Bruce Dr., Kalamazoo
Finton, Mrs. M. A.....1418 W. Kilgore Rd., Kalamazoo
Flunt, Mrs. Roman.....State Hospital, Kalamazoo
Fopeano, Mrs. John W.....2121 Sheffield Dr., Kalamazoo
French, Mrs. Merle R.....1128 Miles Ave., Kalamazoo
Fulkerson, Mrs. Clark B.....425 S. Westnedge Ave., Kalamazoo
Fuller, Mrs. Paul.....4192 Saratoga, Kalamazoo
Gardner, Mrs. Carl A.....1429 Spruce St., Kalamazoo
Gerstner, Mrs. Louis P.....2425 Low Rd., Kalamazoo
Gladstone, Mrs. Wm. S.....4322 Sunnybrook Dr., Kalamazoo
Glaser, Mrs. Daniel F.....3322 Lakehill Dr., Kalamazoo
Grekin, Mrs. Robt. H.....3224 Lakehill Dr., Kalamazoo
Gremel, Mrs. Norman A.....2527 Broadway, Kalamazoo
Haddock, Mrs. D. A.....4426 Lake Forest Dr., Kalamazoo
Hailman, Mrs. H. F.....812 Wilshire Blvd., Kalamazoo
Hammer, Mrs. John M.....121 Monroe St., Kalamazoo
Hanson, Mrs. Curtis M.....3913 Lakeside Dr., Kalamazoo
Harrell, Mrs. Frank G.....R.R. #1, Hickory Corners
Harrelson, Mrs. Wm. D.....3625 Old Colony Rd., Kalamazoo
Harvey, Mrs. Donald A.....2308 Crane Ave., Kalamazoo
Hayner, Mrs. Russell A.....718 Royce Ave., Kalamazoo
Heersma, Mrs. H. Sidney.....1923 Winchell Ave., Kalamazoo
Heinle, Mrs. Robt. W.....2517 Bronson Blvd., Kalamazoo
Herbert, Mrs. Walter N.....2777 Highland Park, Richland
Hersey, Mrs. E. Freeman.....4407 Bronson Blvd., Kalamazoo
Hildreth, Mrs. Roscoe C.....226 Grandview, Kalamazoo
Hoebke, Mrs. Wm. G.....1408 Long Rd., Kalamazoo
Holder, Mrs. C. O.....1207 Oakland Dr., Kalamazoo
Howard, Mrs. Grand R.....2025 Chevy Chase Blvd., Kalamazoo
Howard, Mrs. Willard H.....1602 Gull Rd., Kalamazoo
Hubbard, Mrs. Edwin M.....1327 Cherokee, Kalamazoo
Hume, Mrs. Robt. H.....1115 Crown Ave., Kalamazoo
Irwin, Mrs. Wm.....2333 Sheffield Dr., Kalamazoo
Jennings, Mrs. Robt. N.....814 Oakland Dr., Kalamazoo
Jennings, Mrs. W. O.....1136 Long Rd., Kalamazoo
Kavanaugh, Mrs. John W.....826 Dwillard Dr., Kalamazoo
Kercher, Mrs. Ervin .....1211 Cherry St., Kalamazoo
Kilgore, Mrs. Robt. N.....5140 Morningside Dr., Kalamazoo
Klerk, Mrs. Wm. J.....2421 Waite Ave., Kalamazoo
Koestner, Mrs. Paul A.....742 Norton Dr., Kalamazoo
Lawrence, Mrs. James O.....1409 Henderson Dr., Kalamazoo
Lawson, Mrs. James B.....1028 Lakeway, Kalamazoo
Littig, Mrs. John.....1708 Embury Rd., Kalamazoo
Lemmer, Mrs. Richard A.....2933 Bronson Blvd., Kalamazoo
Locklin, Mrs. Walter K.....4444 Lake Forest Dr., Kalamazoo
Louisell, Mrs. James.....2703 Russet Dr., Kalamazoo
Loynd, Mrs. James W.....3338 Bronson Blvd., Kalamazoo
MacGregor, Mrs. John R.....226 Church St., Parchment
Machin, Mrs. Harold A.....2348 Tipperary Rd., Kalamazoo
Malone, Mrs. James G.....3731 Bronson Blvd., Kalamazoo
Margolis, Mrs. Frederick J.....2134 Waite Ave., Kalamazoo
Marshall, Mrs. Don.....1508 Timberlane Dr., Kalamazoo
Marshall, Mrs. Wm. P.....160 Edgemoor, Kalamazoo
Martens, Mrs. Irvin J.....517 Sturgis Rd., Parchment
May, Mrs. Donald G.....1327 Maple, Kalamazoo
McCarthy, Mrs. Joseph S.....1005 Oakland Dr., Kalamazoo
McMillan, Mrs. Donald W.....2031 Old Colony, Kalamazoo
Mellis, Mrs. Richard T.....2833 Grace Rd., Kalamazoo
Morter, Mrs. Roy A.....2421 Sheffield, Kalamazoo
Neerkin, Mrs. A. John.....2315 Lorraine, Kalamazoo
Nibbelink, Mrs. Benjamin.....2149 Treehaven Dr., Kalamazoo
Nicholson, Mrs. Robt. M.....2229 Treehaven Dr., Kalamazoo
Overby, Mrs. Charles.....State Hospital, Kalamazoo
Patmos, Mrs. Martin.....1207 Cherry St., Kalamazoo
Peake, Mrs. Charles O.....1541 W. Kilgore Rd., Kalamazoo
Pearson, Mrs. Edwin O.....933 W. Inkster, Kalamazoo
Peelen, Mrs. J. Wm.....943 W. Inkster, Kalamazoo
Peelen, Mrs. Mathew.....310 Grandview Ave., Kalamazoo
Perry, Mrs. C. W.....2030 Waite Ave., Kalamazoo
Pinkham, Mrs. Raymond A.....1203 Niles, Kalamazoo
Pool, Mrs. John D.....1215 Lakeway, Kalamazoo
Pullon, Mrs. Alton E.....3114 Bronson Blvd., Kalamazoo
Rasmussen, Mrs. Leo.....205 W. Michigan, Vicksburg
Rigterink, Mrs. Gerald.....2424 S. Park, Kalamazoo
Roberts, Mrs. M. S.....118 Bulkley, Kalamazoo
Rockwell, Mrs. Donald C.....1227 Jefferson St., Kalamazoo
Rogers, Mrs. R. J.....108 Mill St., Vicksburg
Rutherford, Mrs. Paul S.....106 Thompson St., Kalamazoo
Ryan, Mrs. Frederick C.....2511 Glenwood St., Kalamazoo
Scholten, Mrs. Roger A.....930 W. Inkster Ave., Kalamazoo
Schrier, Mrs. Clarence M.....1223 Oakland Dr., Kalamazoo
Scott, Mrs. Wm. A.....2315 Angling Rd., Kalamazoo
Siemsen, Mrs. Walter J.....3427 Old Colony Rd., Kalamazoo
Slatmyer, Mrs. Karel.....118 S. Prairie, Kalamazoo
Smith, Mrs. Thomas C.....1215 Oakland Dr., Kalamazoo
Sofen, Mrs. M. B.....4414 Lake Forest St., Kalamazoo
Southworth, Mrs. Maynard.....Schoolcraft
Stewart, Mrs. Robert B.....2407 Fairfield, Kalamazoo
Stewart, Mrs. Wm. C.....4419 Lake Forest Dr., Kalamazoo
Stiller, Mrs. Anthony.....1235 N. Hillandale Dr., Kalamazoo
Stryker, Mrs. Homer H.....903 Edgemoor, Kalamazoo
Youngs, Mrs. C. A.....416 S. Burdick St., Kalamazoo
Upjohn, Mrs. E. Gifford.....2230 Glenwood Dr., Kalamazoo
Upjohn, Mrs. Harold.....5147 Bronson Blvd., Kalamazoo
VanderVelde, Mrs. Kenneth.....2203 Sheffield Dr., Kalamazoo
Verhage, Mrs. Martin D.....1748 Greenlawn Ave., Kalamazoo
Volderauer, Mrs. John C.....905 Edgemoor, Kalamazoo
Warnke, Mrs. Robt. D.....3012 Kenilworth, Kalamazoo
Weadon, Mrs. Preston S.....2255 Tipperary, Kalamazoo
Williamson, Mrs. Edwin M.....6343 Douglas Ave., Kalamazoo
Wilson, Mrs. Doyle E.....1524 Midfield, Kalamazoo
Wu, Mrs. Jack Foy.....3719 Duke St., Kalamazoo
Zwergel, Mrs. E. H.....5207 Morningside Dr., Kalamazoo

KENT COUNTY

Aitken, Mrs. George T.....936 San Lucia Dr. S.E., Grand Rapids
Albers, Mrs. G. Donald.....1838 Argentina Dr. S.E., Grand Rapids
Aldridge, Mrs. Charles W.....1574 Mackinaw Rd. S.E., Grand Rapids
Andre, Mrs. Harvey M.....950 Cambridge Dr. S.E., Grand Rapids

Balyeat, Mrs. Gordon W.....150 Morningside Dr. S.E., Grand Rapids
Barofsky, Mrs. Gerald F.....2944 Hall St. S.E., Grand Rapids
Bartek, Mrs. Gordon L.....144 Forest Hills S.E., Grand Rapids
Basinger, Mrs. Clair E.....298 Morningside Dr. S.E., Grand Rapids
Baum, Mrs. Wm. C.....2739 Oakwood Dr. S.E., Grand Rapids
Beaton, Mrs. James H.....1556 Pontiac Rd. S.E., Grand Rapids
Beets, Mrs. W. Clarence.....2221 Jefferson Dr. S.E., Grand Rapids
Benjamin, Mrs. Howard G.....500 Cambridge S.E., Grand Rapids
Bennett, Mrs. W. Bruce.....1015 Rosalie N.W., Grand Rapids
Benson, Mrs. Roland R.....1578 Pontiac Rd. S.E., Grand Rapids
Bergsma, Mrs. Stuart..1942 Sherman S.E., Grand Rapids
Bignall, Mrs. C. Rexford.....1134 Conlon S.E., Grand Rapids
Blackburn, Mrs. Henry M.....2410 Breton Rd. S.E., Grand Rapids
Blocksma, Mrs. Ralph.....1529 Blythecourt N.W., Grand Rapids
Boelkins, Mrs. Richard C.....834 Giddings Ave. S.E., Grand Rapids
Boerman, Mrs. Walter J.....1110 Kelsey N.E., Grand Rapids
Boersma, Mrs. Donald.....920 Chippewa S.E., Grand Rapids
Bonzelaar, Mrs. Marvin.....1612 Woodward S.E., Grand Rapids
Booher, Mrs. Craig E.....2609 Albert Dr. S.E., Grand Rapids
Bosch, Mrs. Leon C.....943 Santa Barbara S.E., Grand Rapids
Bowman, Mrs. Harold E.....2209 Wilshire Dr. S.E., Grand Rapids
Boyce, Mrs. David C.....2310 Estelle Dr. S.E., Grand Rapids
Brace, Mrs. Fred C.....2311 Academy Dr. S.E., Grand Rapids
Braunschneider, Mrs. G. E.....2231 Clover Dr. N.W., Grand Rapids
Bratt, Mrs. Harvey J.....1121 Giddings S.E., Grand Rapids
Brink, Mrs. J. Russel.....1901 Argentina Dr. S.E., Grand Rapids
Brook, Mrs. J. D.....65 S. Wilson Ave., Grandville
Bull, Mrs. Frank L.....65 S. State St., Sparta
Burhans, Mrs. John B.....1445 Seminole Rd. S.E., Grand Rapids
Burroughs, Mrs. Frank M., Jr.....3307 S. Ottawa, Grandville

Capps, Mrs. Sam C.....2059 Wilshire Dr. S.E., Grand Rapids
Carpenter, Mrs. Luther C.....1818 Argentina Dr. S.E., Grand Rapids
Caukin, Mrs. Howard S.....1310 Woodcliff Dr. S.E., Grand Rapids
Cayce, Mrs. Wm.....640 Kent Hills Rd. S.E., Grand Rapids
Champion, Mrs. John P.....2222 Englewood Dr. S.E., Grand Rapids
Chandler, Mrs. Donald.....3347 East Belt Line N.E., Grand Rapids
Chase, Mrs. R. Jack....849 Maxwell S.E., Grand Rapids
Clahassey, Mrs. Erwin G.....427 Mulford Dr. S.E., Grand Rapids
Clawson, Mrs. Carroll K.....748 Ethel S.E., Grand Rapids
Claytor, Mrs. Robt. W.....2032 Coit N.E., Grand Rapids
Colvin, Mrs. W. G.....7380 Valhalla Dr., Alto
Corbus, Mrs. Burton R.....325 Union S.E., Grand Rapids
Crane, Mrs. Harold D.....2221 Madison S.E., Grand Rapids
Cremer, Mrs. John A.....14115 Ironwood Dr., Marne
Cuncannan, Mrs. M. Edward.....1745 Eastern S.E., Grand Rapids
Currier, Mrs. Fred P...955 Floral Dr. S.E., Grand Rapids
Damstra, Mrs. Harold J.....1022 Santa Cruz S.E., Grand Rapids
Dassel, Mrs. Paul M.....2641 Boston S.E., Grand Rapids
Davis, Mrs. David B.....266 Pettis Rd., Ada
Dawson, Mrs. W. Douglas.....1021 Iroquois Dr. S.E., Grand Rapids
DeBoer, Mrs. Clarence J.....3391 Elwood, Grandville
DeBoer, Mrs. Guy W...41 Maryland N.E., Grand Rapids
DeMaagd, Mrs. Gerald.....185 S. Monroe, Rockford
DeMol, Mrs. Richard J.....2425 College S.E., Grand Rapids
Denham, Mrs. Robt. H.....535 Plymouth S.E., Grand Rapids
DeVel, Mrs. Leon.....739 Plymouth S.E., Grand Rapids
DeVries, Mrs. Daniel....82 Maryland S.E., Grand Rapids
Dewey, Mrs. Kent A.....3205 Bonnell S.E., Grand Rapids
DeYoung, Mrs. Maynard T.....12 Mile Rd. N.W., Sparta
DeYoung, Mrs. Thies.....35 E. Division, Sparta
Diskey, Mrs. Donald G...1911 Lake Michigan Dr. N.W., Grand Rapids
Dixon, Mrs. Willis, Sr.....420 E. Fulton, Grand Rapids
Dixon, Mrs. Willis L., Jr.....2012 Coronado S.E., Grand Rapids
Docter, Mrs. Luebert L.....3496 Lake Dr. S.E., Grand Rapids
Doyle, Mrs. John L.....2438 Paris S.E., Grand Rapids
Droste, Mrs. James C.....1545 Seminole Dr. S.E., Grand Rapids

Eggleston, Mrs. H. R.....117 Page N.E., Grand Rapids
Eldersveld, Mrs. Herman C.....977 Powers N.W., Grand Rapids

Failing, Mrs. John F.....2617 Lake Michigan Dr. N.W., Grand Rapids
Farber, Mrs. Charles E...2930 Bonnell S.E., Grand Rapids
Faust, Mrs. Lawrence W.....405 Manhattan Rd. S.E., Grand Rapids
Feenstra, Mrs. Laurence H.....1651 Plymouth S.E., Grand Rapids
Fellows, Mrs. Kenneth.....3341 Ashton Rd. S.E., Grand Rapids
Ferguson, Mrs. James....2230 Hall St. S.E., Grand Rapids
Ferguson, Mrs. Lynn..635 Cambridge S.E., Grand Rapids
Ferguson, Mrs. Ward S.....2117 Hall St. S.E., Grand Rapids
Ferrand, Mrs. Louis G.....8149 Northland Dr., Rockford
Fitts, Mrs. Ralph L.....1930 Michigan Rd. N.E., Grand Rapids
Fitzgerald, Mrs. Erwin L.....2005 Hall St. S.E., Grand Rapids
Flintoff, Mrs. Wm. M.....954 Gladstone Dr. S.E., Grand Rapids
Flynn, Mrs. Donald J.....1034 Santa Barbara S.E., Grand Rapids
Foshee, Mrs. John F.....315 Madison Ave. S.E., Grand Rapids
Foxworthy, Mrs. John.....2565 Albert Dr. S.E., Grand Rapids

Frantz, Mrs. Charles..1860 Lake Dr. S.E., Grand Rapids
Fuller, Mrs. E. Hemingway..260 Paris S.E., Grand Rapids
Fuller, Mrs. Wm. J.....2633 Frederick S.E., Grand Rapids
Gamm, Mrs. Kenneth E...456 Morris S.E., Grand Rapids
Giammona, Mrs. Samuel.....2120 Emerald N.E., Grand Rapids
Gibbs, Mrs. Floyd F...2140 Romence N.E., Grand Rapids
Gillet, Mrs. Frederick S.....755 San Jose, S.E., Grand Rapids
Gouwens, Mrs. Willis E., Jr.....2903 Coit N.E., Grand Rapids
Grant, Mrs. Lee O.....2263 Eldorado S.E., Grand Rapids
Grass, Mrs. Edward J...858 Pinecrest S.E., Grand Rapids
Gray, Mrs. Fred B.....3025 Mary St. S.E., Grand Rapids
Griffith, Mrs. Lucian S.....1934 Sherman S.E., Grand Rapids
Gunn, Mrs. James....2519 Westboro N.E., Grand Rapids
Gunning, Mrs. R. L. Lee.....369 Greenwich Rd. S.E., Grand Rapids
Haarer, Mrs. John G.....733 Alger S.E., Grand Rapids
Haeck, Mrs. Wm.....1225 Franklin S.E., Grand Rapids
Hagerman, Mrs. David B.....1551 Seminole Rd. S.E., Grand Rapids
Hamp, Mrs. Arthur.....3985 Reeds Lake Blvd. S.E., Grand Rapids
Hayes, Mrs. Thomas A...1018 Cherry S.E., Grand Rapids
Heaton, Mrs. John R.....2102 Anderson Dr. S.E., Grand Rapids
Heetderks, Mrs. Dewey R.....240 Edgehill Dr. S.E., Grand Rapids
Hesselschwerdt, Mrs. D. W.....932 Floral Dr. S.E., Grand Rapids
Hodgen, Mrs. John T.....2320 Fulton E., Grand Rapids
Holcomb, Mrs. J. Winslow.....1441 Breton Rd. S.E., Grand Rapids
Hollander, Mrs. Stephen.....2027 Godwin S.E., Grand Rapids
Hoogerhyde, Mrs. Jack.....3355 Ashton Rd. S.E., Grand Rapids
Hoyt, Mrs. Robt. L...954 Cambridge S.E., Grand Rapids
Hudson, Mrs. Harry C.....1540 Woodlawn S.E., Grand Rapids
Hufford, Mrs. Ray....2660 Oakwood S.E., Grand Rapids
Humphrey, Mrs. James C.....1134 Cambridge S.E., Grand Rapids
Hutchinson, Mrs. F. Alan.....1115 Kenesaw S.E., Grand Rapids
Hydrick, Mrs. Robt. H.....2150 Clover Dr. N.W., Grand Rapids
Hyland, Mrs. Wm. A.....2833 Bonnell S.E., Grand Rapids
Ireland, Mrs. H. D.....724 Fuller N.E., Grand Rapids
Irwin, Mrs. Thomas C.....325 Morris S.E., Grand Rapids
Jack, Mrs. Wm.....507 Plymouth S.E., Grand Rapids
Jameson, Mrs. Fred M.....2711 Beechwood S.E., Grand Rapids
Jaracz, Mrs. Walter J., Sr...36 Valley S.W., Grand Rapids
Jaracz, Mrs. Walter J., Jr.....1561 Alexander S.E., Grand Rapids
Jarvis, Mrs. Charles..218 Sligh Blvd. N.E., Grand Rapids
Jellema, Mrs. John F.....1842 Houseman N.E., Grand Rapids
Jenson, Mrs. Wm. B., Jr.....3147 Bonnell S.E., Grand Rapids
Johns, Mrs. Donald....655 Broadview S.E., Grand Rapids
Johnston, Mrs. Daniel W.....2440 Beechwood Dr. S.E., Grand Rapids
Jones, Mrs. Haven E.....2105 Godwin S.E., Grand Rapids
Jones, Mrs. Horace C.....3004 Oakwood Dr. S.E., Grand Rapids
Jui, Mrs. John O.....1706 Wilson N.W., Grand Rapids
Kenny, Mrs. Leo J.....3481 Briarbank Pl. S.E., Grand Rapids
Kessler, Mrs. Dale L.....1610 Robinson Rd. S.E., Grand Rapids
Kingma, Mrs. J. G.....935 Calvin S.E., Grand Rapids
Klooster, Mrs. Gerald.....1919 Chamberlain S.E., Grand Rapids
Kniskern, Mrs. Paul W.....1555 Edgewood S.E., Grand Rapids
Kooistra, Mrs. Henry P.....1564 Pontiac Rd. S.E., Grand Rapids
Kool, Mrs. Bernard P.....419 Comstock N.E., Grand Rapids
Kreulen, Mrs. Henry J.....2452 Godwin S.E.,
Krhovsky, Mrs. Frank J.....130 Rexford Dr. S.E., Grand Rapids
Kruse, Mrs. Wm. T.....2939 Wilshire Dr. S.E., Grand Rapids
Kuiper, Mrs. Klaire V.....2208 Madison S.E., Grand Rapids
Lamberts, Mrs. Austin E.....1520 Leffingwell N.E., Grand Rapids
Landstra, Mrs. Robt. F.....1243 Fisk S.E., Grand Rapids
Lang, Mrs. Ramon B...2958 Hall St. S.E., Grand Rapids
Lanning, Mrs. Nicholas E.....1050 Gladstone S.E., Grand Rapids
Lentini, Mrs. Joseph R.....2059 Anderson Dr. S.E., Grand Rapids
Lewis, Mrs. George H.....30 Manchester Rd. S.W., Grand Rapids
Lieffers, Mrs. Harry.....331 Aurora S.E., Grand Rapids
Lillie, Mrs. Walter I.....835 Cambridge Blvd. S.E., Grand Rapids
List, Mrs. Carl F.....401 Lakeside Dr. S.E., Grand Rapids
Lukens, Mrs. Jack G.....2847 Elmwood Dr. S.E., Grand Rapids
MacDonell, Mrs. James A.....185 Maryland N.E., Grand Rapids
MacIntyre, Mrs. Dugald S.....562 Plymouth S.E., Grand Rapids
Mann, Mrs. Joseph D.....2435 Beechwood Dr., S.E., Grand Rapids
Marsh, Mrs. John P.....35 Bel Aire N.E., Grand Rapids
Maynard, Mrs. Mason S.....1231 Plymouth S.E., Grand Rapids
McCormick, Mrs. John K.....401 Cheshire Dr. N.E., Grand Rapids
McDougal, Mrs. Wm. J.....639 Kent Hills Rd. N.E., Grand Rapids
McKenna, Mrs. Joseph L.....2550 Beechwood S.E., Grand Rapids
Meade, Mrs. Richard H.....759 San Jose S.E., Grand Rapids
Meeuwsen, Mrs. Bernard.....664 Winchell S.E., Grand Rapids
Mehney, Mrs. Gayle H.....3530 Cascade Rd. S.E., Grand Rapids
Miller, Mrs. J. Duane.....2565 Frederick Dr. S.E., Grand Rapids
Miller, Mrs. John J.....1580 Water St., Marne
Moberg, Mrs. Carl H.....2547 Maplewood S.E., Grand Rapids
Moleski, Mrs. Joseph V.....1911 Hall St. S.E., Grand Rapids
Moleski, Mrs. Leo T.....1462 Milton S.E., Grand Rapids
Mol, Mrs. Arthur M.....3383 Fulton Rd. S.E., Grand Rapids
Mouw, Mrs. Dirk..2352 Jefferson Dr. S.E., Grand Rapids
Mulder, Mrs. G. Arthur.....2047 Jefferson Dr. S.E., Grand Rapids
Mulder, Mrs. J. D.....3161 Baker Rd. S.E., Grand Rapids
Muldoon, Mrs. James P.....1833 Madison S.E., Grand Rapids
Murphy, Mrs. Miles J.....1051 Monterey S.E., Grand Rapids
Murray, Mrs. Raymond J.....1540 Mackinaw Rd. S.E., Grand Rapids
Nanzig, Mrs. Reinard P.....824 Chippewa S.E., Grand Rapids
Nickel, Mrs. Kenneth C.....1535 Groton S.E., Grand Rapids
Northouse, Mrs. Peter B.....1524 Pontiac Rd. S.E., Grand Rapids

Notier, Mrs. Victor A.....2601 Maplewood Dr. S.E., Grand Rapids
Oates, Mrs. Samuel M.....1855 Chamberlain S.E., Grand Rapids
Oliver, Mrs. Walter W...7241 Belding Rd. N.E., Rockford
Overbeck, Mrs. Ernest L.....316 Sligh Blvd. N.E., Grand Rapids

Paalman, Mrs. Russell J.....111 Middleboro N.E., Grand Rapids
Patterson, Mrs. Wilford P.....2032 Godwin S.E., Grand Rapids
Pattullo, Mrs. Marshall.....1330 Woodcliff Dr. S.E., Grand Rapids
Payne, Mrs. Allen C.....5696 Fulton E., Grand Rapids
Pearson, Mrs. Glenn A.....519 Greenwood S.E., Grand Rapids
Pedden, Mrs. John R.....230 El Centro Blvd. S.E., Grand Rapids
Pilling, Mrs. Warren C...936 Orchard S.E., Grand Rapids
Plekker, Mrs. Johannes D.....2217 Wilshire Dr. S.E., Grand Rapids
Porter, Mrs. Howard P., Jr.....180 Greenwich N.E., Grand Rapids
Posthuma, Mrs. Albert E.....2247 College S.E., Grand Rapids
Postma, Mrs. Howard F.....3876 E. Omaha, Grandville
Pott, Mrs. Abraham L.....612 Kent Hills N.E., Grand Rapids
Prothro, Mrs. Winston B.....465 Cheshire Dr. N.E., Grand Rapids
Puite, Mrs. Robt. H...1030 San Juan S.E., Grand Rapids
Pyle, Mrs. Henry J.....1016 Waltham S.E., Grand Rapids

Raiman, Mrs. Robt. J.....2640 Manor Dr. S.E., Grand Rapids
Ralph, Mrs. Paul L.....953 Rosewood S.E., Grand Rapids
Rasmussen, Mrs. Richard A.....737 Cambridge S.E., Grand Rapids
Reardon, Mrs. Daniel F.....2134 Clover Dr. N.W., Grand Rapids
Reed, Mrs. Torrence....1058 Orchard S.E., Grand Rapids
Reus, Mrs. Wm. F.....334 Hobart S.E., Grand Rapids
Riekse, Mrs. James M.....437 Hoyt S.E., Grand Rapids
Rigterink, Mrs. John W.....1291 Cambridge S.E., Grand Rapids
Riley, Mrs. Geo. L.....1651 Stoddard N.E., Grand Rapids
Robb, Mrs. Chas. S...977 Gladstone S.E., Grand Rapids
Robbert, Mrs. John H...3813 Omaha S.W., Grand Rapids
Rodgers, Mrs. Wm. S.....2865 Lake Dr. S.E., Grand Rapids
Rooks, Mrs. Wendel H.....1158 Nixon N.W., Grand Rapids
Rosenweig, Mrs. Leonard.....315 Benjamin S.E., Grand Rapids
Roth, Mrs. Emil M.....2414 Fulton Rd. E., Grand Rapids
Ryan, Mrs. John A.....1707 Wealthy S.E., Grand Rapids

Sharda, Mrs. Martin.....916 Alger S.E., Grand Rapids
Schaubel, Mrs. Howard J.....728 Cambridge Blvd. S.E., Grand Rapids
Schek, Mrs. Donald C.....2511 Micheal S.W., Grand Rapids
Schlosser, Mrs. Ralph.....7840 Conservation Rd., Ada
Schumacher, Mrs. Earl E., Jr.....2456 Beechwood S.E., Grand Rapids
Scott, Mrs. Wm. B.....1300 Benjamin S.E., Grand Rapids
Seime, Mrs. Reuben.....617 Plymouth Rd. S.E., Grand Rapids
Sevensma, Mrs. Eugene S., Sr...2114 Anderson Dr. S.E., Grand Rapids
Sevensma, Mrs. Eugene S.....1735 Westlane N.E., Grand Rapids
Sevey, Mrs. Leon E...1145 Benjamin S.E., Grand Rapids
Sheehan, Mrs. E. Gregg....70 Arthur N.E., Grand Rapids
Shellman, Mrs. Millard W.....3152 Brentwood Dr. S.E., Grand Rapids
Sidell, Mrs. Richard.....927 Princeton Blvd. S.E., Grand Rapids
Siebers, Mrs. Bernard H.....988 Maryland N.E., Grand Rapids
Slemons, Mrs. C. C.....530 Morris S.E., Grand Rapids
Sluyter, Mrs. J. S.....839 Iroquois, Grand Rapids
Smith, Mrs. A. B.....1434 Byron S.E., Grand Rapids
Smith, Mrs. Dean B.....2501 Maplewood S.E., Grand Rapids
Smith, Mrs. Robt. B.....1445 Breton S.E., Grand Rapids
Snapp, Mrs. Carl F.....314 Madison S.E., Grand Rapids
Snider, Mrs. John D.....2130 Godwin S.E., Grand Rapids
Snyder, Mrs. Clarence H.....3250 O'Brien Rd. S.W., Grand Rapids
Southwick, Mrs. Christopher.....760 San Jose S.E., Grand Rapids
Southwick, Mrs. George H.....1935 San Lu Rae S.E., Grand Rapids
Spencer, Mrs. Herbert H.....2559 Albert Dr. S.E., Grand Rapids
Steffenson, Mrs. Wallace H.....443 Plymouth S.E., Grand Rapids
Stonehouse, Mrs. G. G.....208 Pioneer Rd. S.E., Grand Rapids
Stoneman, Mrs. Fernly.....3940 E. Prairie, Grandville
Stover, Mrs. Virgil E.....860 Gladstone, S.E., Grand Rapids
Sugiyama, Mrs. Tetsuo.....1006 Hollywood, N.E., Grand Rapids
Swanson, Mrs. Alfred B.....1722 Breton Rd., S.E., Grand Rapids
Swenson, Mrs. Harold C.....1734 Adams, S.E., Grand Rapids
Telego, Mrs. Anthony J.....1016 San Juan, S.E., Grand Rapids
TenHave, Mrs. John.....3515 Brigga Blvd., N.E., Grand Rapids

Tesseinne, Mrs. Arthur J.....425 Cambridge, S.E., Grand Rapids
Teusink, Mrs. J. Harvey.....39 W. Beech St., Cedar Springs
Thompson, Mrs. Edward C.....1401 Breton Rd., S.E., Grand Rapids
Thompson, Mrs. Frank D.....4011 Reeds Lake Blvd., S.E., Grand Rapids
Thomson, Mrs. John W.....2029 Hall, S.E., Grand Rapids
Tidey, Mrs. Marcus B.....7149 Wildermere Dr., Rockford
Tiffany, Mrs. Joseph C.....2322 Jefferson, S.E., Grand Rapids
Torgerson, Mrs. Wm. R.....536 Bevedere Dr., S.E., Grand Rapids
Torgerson, Mrs. Wm. R., Jr.....2639 Hall St., S.E., Grand Rapids
Truog, Mrs. C. Peter.....1470 Briarcliff, Grand Rapids

Uthoff, Mrs. Carl W.....2760 Lake Dr., S.E., Grand Rapids

VanBree, Mrs. Raymond S.....1521 Ridgewood, S.E., Grand Rapids
VandenBerg, Mrs. Allison.....1120 Cambridge, S.E., Grand Rapids
VandenBerg, Mrs. Henry J.....2933 Bonnell Rd., S.E., Grand Rapids
VandenBerg, Mrs. Wm. O.....2930 Oak Hollow, S.E., Grand Rapids
VanderMolen, Mrs. John.....1805 Diamond, S.E., Grand Rapids
VanderPloeg, Mrs. Wm. H.....965 Rosewood Dr., S.E., Grand Rapids
VanderVeer, Mrs. Corwin G.....841 Edna, S.E., Grand Rapids
VanDommelon, Mrs. Glenn M.....1500 Burke, N.E., Grand Rapids
VanDuine, Mrs. Henry J.....414 Brookside, S.E., Grand Rapids
VanGoor, Mrs. Korneius.....2547 Willard, S.E., Grand Rapids
VanNoord, Mrs. Gelmer A.....6850 S. Division, Grand Rapids

VanWoerkom, Mrs. Daniel.....1946 Lake Michigan Dr., N.W., Grand Rapids
VanZwalenberg, Mrs. Benj. R.....2054 Anderson Dr., S.E., Grand Rapids
Veldman, Mrs. Harold E.....2447 Oakwood, N.E., Grand Rapids
Venema, Mrs. Jay R.....540 Overbrook, S.E., Grand Rapids
Voss, Mrs. John A.....1625 W. Kentview, N.E., Grand Rapids
Wahby, Mrs. Elmer F.....2127 Wilshire Dr., S.E., Grand Rapids
Waterman, Mrs. Donald F.....4221 Edinburg, S.E., Grand Rapids
Webb, Mrs. Clarence F.....250 Grenwich, N.E., Grand Rapids
Weller, Mrs. Keith E.....934 Rosewood, S.E., Grand Rapids
Wells, Mrs. Merrill.....2716 Bonnell, S.E., Grand Rapids
Wenger, Mrs. A. V.....132 Grand, N.E., Grand Rapids
Wenger, Mrs. John N.....112 Eastmanville, Coopersville
Westerhoff, Mrs. Robt. J.....2458 Maplewood, S.E., Grand Rapids
Whitehouse, Mrs. John.....1201 Colorado, S.E., Grand Rapids
Whittenberger, Mrs. Robt.....740 Kent Hills Rd., N.E., Grand Rapids
Wilderom, Mrs. Morris.....R.R. #2, Ada
Wilkes, Mrs. John B.....311 Aurora, S.E., Grand Rapids
Wilkinson, Mrs. Charles A.....2422 Maplewood, S.E., Grand Rapids
Williams, Mrs. John R.....1111 Conlon, S.E., Grand Rapids
Willits, Mrs. Paul W.....337 Manhattan, S.E., Grand Rapids
Wilson, Mrs. John.....703 Stobel, N.W., Grand Rapids
Winter, Mrs. Gerritt E.....2316 Jefferson Dr., S.E., Grand Rapids
Wyngarden, Mrs. Martin K.....1333 Philadelphia, S.E., Grand Rapids
Zwemer, Mrs. Rodger J.....1420 Rossman, S.E., Grand Rapids

LAPEER COUNTY

Bishop, Mrs. Clare.....Almont
Boruch, Mrs. Leon R.....834 Liberty St., Lapeer
Buchanan, Mrs. Thomas K.....182 Melanie, Imlay City
Burley, Mrs. David H.....Almont
Chapin, Mrs. Clarence D.....4727 Pine St., Columbiaville
Conaway, Mrs. Charles E.....746 N. Monroe, Lapeer
DesJardins, Mrs. Elaine.....307 Washington, Lapeer
Dorland, Mrs. Clarke.....211 Lincoln, Lapeer
Doty, Mrs. James R.....1335 N. Monroe, Lapeer
Greavu, Mrs. Cornell, Jr.....North Branch
Heitsch, Mrs. Wm. C.....892 S. Saginaw, Lapeer
House, Mrs. Clifford L.....1026 N. Madison, Lapeer
Hunter, Miss Mary E.....1091 Pine, Lapeer
Kiehler, Mrs. E. G., II.....1608 Peppermill Rd., Lapeer
Lundgren, Mrs. Margaret.....450 Cedar St., Lapeer
McBride, Mrs. John R.....914 Liberty St., Lapeer
Rehn, Mrs. Adolph T.....Drawer A, Lapeer
Smith, Mrs. Glenn L.....6522 Imlay City Rd., Imlay City
Snowman, Mrs. Lynna.....306 N. Main, Lapeer
Thomas, Mrs. Lucille.....Huron St., North Branch
Thompson, Mrs. May F.....243 Clay St., Lapeer
Zemmer, Mrs. Harry B.....3634 Hannamon Rd., Columbiaville
Zolliker, Mrs. Carl R.....Drawer A, Lapeer

LENAWEE COUNTY

Abraham, Mrs. Arnold.....305 S. Church St., Hudson
Allen, Mrs. Russell.....R.R. #4, Adrian
Benz, Mrs. Carl A.....R.R. #4, Adrian
Berghius, Mrs. John.....347 Budlong, Adrian
Blanchard, Mrs. Lowell E.....224 Seward St., Hudson
Blanden, Mrs. M. R.....5140 E. Monroe Rd., Tecumseh
Boyd, Mrs. James.....38 Westwood Dr., Adrian
Claxton, Mrs. W. T.....136 W. Chicago, Britton
Coak, Mrs. Richard D.....208 W. Chicago Blvd., Tecumseh
Cook, Mrs. Carlton L.....740 N. Union St., Tecumseh
Dustin, Mrs. Richard E.....309 N. Union St., Tecumseh
Eddy, Mrs. Howard.....476 N. Scot St., Adrian
Gilkey, Mrs. Wm.....311 Budlong, Adrian
Gilmartin, Mrs. Richard.....203 Canterbury, Adrian
Hamilton, Mrs. J. D.....1360 Oregon Rd., Adrian
Hammell, Mrs. Richard T.....611 N. Evans, Tecumseh
Hinshaw, Mrs. Warren.....950 Riverside Dr., Adrian
Marsh, Mrs. R. G. B.....610 W. Logan St., Tecumseh
Patmos, Mrs. Bernard.....4500 Evergreen Dr., Adrian
Phelan, Mrs. Alvin J.....405 Seneca St., Tecumseh
Rogers, Mrs. J. D.....1232 W. Maple Ave., Adrian
Sarapo, Mrs. Donato.....115 E. Michigan St., Adrian
Stewart, Mrs. Landis.....214 E. Butler, Adrian
Whitehouse, Mrs. K. H.....128 S. Summitt, Morenci

LIVINGSTON COUNTY

Barton, Mrs. Thomas A.....100 Lucy Rd., Howell
Hauer, Mrs. R. F.....Box 158, Fowlerville
Hendren, Mrs. J. J.....730 E. Grand River, Fowlerville
Higby, Mrs. Thomas F.....Box 156, Fowlerville
Hill, Mrs. Harold C.....320 Madison St., Howell
Hoffman, Mrs. S. L.....417 Maple St., Howell
Huntington, Mrs. Harry G.....219 S. Walnut St., Howell
May, Mrs. L. E.....420 Riddle St., Howell
McGregor, Mrs. Archie J.....995 Maple St., Brighton
Polack, Mrs. Robt. T.....221 Fowler St., Howell
Sigler, Mrs. Hollis G.....809 N. Michigan, Howell
Smith, Mrs. Russell F.....Whitmore Lake
Wadlund, Mrs. Robt. R.....111 Caledonia, Howell
Walker, Mrs. Enos S.....4485 Cordley Lake Rd., Lakeland
Woodworth, Mrs. Edwin S.....433 Caledonia, Howell

MACOMB COUNTY

Audretsch, Mrs. Frank E.....36275 Alfred St., New Baltimore
Banting, Mrs. O. Fenton.....Main St., Richmond
Barker, Mrs. John G.....22420 Statler Blvd., St. Clair Shores
Bower, Mrs. Allen B.....Armada
Bryce, Mrs. James W.....22476 Lange, St. Clair Shores
Buckley, Mrs. Daniel.....160 S. Walnut, Mt. Clemens
Collon, Mrs. David.....217 W. St. Clair, Romeo
Charbeneau, Mrs. Patrick.....226 Wellington Crescent, Mt. Clemens

Corbett, Mrs. John.....22924 Edgewood, St. Clair Shores
Croman, Mrs. Jos. M., Jr.....131 Market St., Mt. Clemens
Curatolo, Mrs. Victor.....28 Breitmeyer Pl., Mt. Clemens
Deal, Mrs. Harold..80 S. Edgewood, Grosse Pointe Shore
DePaulis, Mrs. Dario....21363 Winshall, St. Clair Shores
Dudzin, Mrs. Edmund J.....36818 E. Main, New Baltimore
Ebner, Mrs. Charles M.....22925 Colony, St. Clair Shores
Engels, Mrs. John A.....36050 Friday St., Richmond
Finn, Mrs. J. W.....36054 Carlisle, Mt. Clemens
Goldman, Mrs. Bernard.....245 Esplanade, Mt. Clemens
Hartmann, Mrs. Waldemar B.....43481 N. Gratiot, Mt. Clemens
Heine, Mrs. Austin W.....38567 Riverside Dr., Mt. Clemens
Jankoska, Mrs. Richard.....38222 Apple Grove Ct., Mt. Clemens
Kane, Mrs. John.....38288 Harper, Mt. Clemens
Kane, Mrs. Peter.....38221 Shana Dr., Mt. Clemens
Kane, Mrs. Wm.....171 North, Mt. Clemens
Kirker, Mrs. J. Gilmore.....68259 Main, Richmond
Lapp, Mrs. Charles.....5752 Dickerson, Detroit
Maguire, Mrs. Andrew H.....45463 Van Dyke, Utica
Matthews, Mrs. Christian E.....135 Riverside Dr., Mt. Clemens
Maxim, Mrs. Edward....34140 Jefferson, St. Clair Shores
Merritt, Mrs. Jule.....23644 Demley, Mt. Clemens
Moore, Mrs. George F.....20 Kendrick, Mt. Clemens
Mulligan, Mrs. Philip T.....59 Ahrens, Mt. Clemens
Nance, Mrs. Marion E.....18501 Woodbine, Fraser
Peltier, Mrs. Stanley J.....151 North, Mt. Clemens
Persson, Mrs. G. A.....198 S. Gratiot, Mt. Clemens
Reitzel, Mrs. Rufus H.....1 Breitmeyer Pl., Mt. Clemens
Reizen, Mrs. Maurice.....10564 Ludlow, Huntington Woods
Rickman, Mrs. Lewis D.....10 Howard St., Mt. Clemens
Rivard, Mrs. Charles.....32926 Jefferson, St. Clair Shores
Rivkin, Mrs. Joseph.....18717 Pennington, Detroit
Rousseau, Mrs. Daniel L.....124 Belleview, Mt. Clemens
Ryan, Mrs. Jack.....2214 Beverly Blvd., Berkley
Salot, Mrs. Russell F.....11 Breitmeyer Pl., Mt. Clemens
Scher, Mrs. Joseph.....130 Belleview, Mt. Clemens
Scher, Mrs. Sydney.....39740 Cove, Mt. Clemens
Siegfried, Mrs. Edward G.....77 Scott Blvd., Mt. Clemens
Sims, Mrs. Wm.....18960 Kappa Dr., Mt. Clemens
Singer, Mrs. Nelson.....15751 Charles Rd., East Detroit
Smith, Mrs. Milton C.....117 Lodewyck, Mt. Clemens
Stepka, Mrs. Walter.....45294 Hecker, Utica
Strempek, Mrs. Walter.....8610 Pippin, Romeo
Stryker, Mrs. Oscar D.....31032 Jefferson Ave., St. Clair Shores
Stubbs, Mrs. Clayton.....126 S. Gratiot, Mt. Clemens
Stubbs, Mrs. Harold W.....29240 Grandview, Mt. Clemens
Suksta, Mrs. Adolph.....22454 Rio Vista, St. Clair Shores
Suzuki, Mrs. Mac.....14231 Oak Park Blvd., Oak Park
Tinkey, Mrs. L. Leo.....23336 Westbury Dr., St. Clair Shores
Ullrich, Mrs. Russell W.....421 Robertson, Mt. Clemens
Whitley, Mrs. Alec.....21707 Erben, Mt. Clemens
Wiley, Mrs. D. Bruce.....45223 Cass Ave., Utica
Wolfson, Mrs. Victor.....272 Riverside Dr., Mt. Clemens
Wyte, Mrs. Wm.....38616 Lake Shore Dr., Mt. Clemens
Zook, Mrs. Gilbert E.....153 S. Highland, Mt. Clemens

MARQUETTE-ALGER COUNTIES

Amelsch, Mrs. Arthur.....312 Pine, Marquette
Bennett, Mrs. Matthew.....409 E. Ohio, Marquette
Bolitho, Mrs. T. Boyd.....Birch Grove, Marquette
Bottom, Mrs. C. N.....624 N. Third, Marquette
Carter, Mrs. James M.....1417 Norway, Marquette
Casler, Mrs. Wilbur L.....127 E. Ridge, Marquette
Conley, Mrs. Donal T.....201 W. Nicolet, Marquette
Cooperstock, Mrs. M.....402 E. Ridge, Marquette
d'Adesky, Mrs. Raymond.....Nicolet, Marquette
Drury, Mrs. Charles P.....414 E. Hewitt, Marquette
Elzinga, Mrs. Eugene.....415 E. Hewitt, Marquette
Erickson, Mrs. A. W.....621 N. Fourth, Ishpeming
Hettle, Mrs. Paup J.....337 E. Hewitt, Marquette
Hornbogen, Mrs. D. P.....320 Cedar, Marquette
Howe, Mrs. Lloyd W.....453 E. Michigan, Marquette
Huffman, Mrs. E. R.....1515 Lincoln, Marquette
Knutson, Mrs. George D.....120 Main, Negaunee
Lambert, Mrs. Warren C.....347 E. Ridge, Marquette
Lindquist, Mrs. Leo A.....119 E. Magnetic, Marquette
Lyons, Mrs. James W.....Lakewood, Marquette
Markham, Mrs. Isabel.....401 N. Fourh, Marquette
Matthews, Mrs. Norman L.....807 W. Kaye, Marquette
Narotzky, Mrs. Archie S.....628 E. Ridge, Ishpeming
Rosenbaum, Mrs. Louis.....2004 Deer Lake, Marquette
Sabin, Mrs. Fred C.....Cedar, Marquette
Schultz, Mrs. Marvin H.....323 E. College, Marquette
Stein, Mrs. Paul G.....Harvey, Marquette
Swinton, Mrs. A. L.....430 E. Arch, Marquette
Youngquist, Mrs. L. L.....528 E. Arch, Marquette
Wright, Mrs. K. Charles.....3156 Lake Shore Blvd., Marquette

MASON COUNTY

Bacon, Mrs. Herbert G.....125 W. State St., Scottville
Boldyreff, Mrs. Ephraim B.....Custer
Boon, Mrs. A. Floyd.....203 N. Ferry St., Ludington
Clark, Mrs. Harry.....501 N. Lakeshore Dr., Ludington
Craymer, Mrs. Austin.....420 N. Rath Ave., Ludington
Dykstra, Mrs. Charles.....108 E. State St., Scottville
Garneau, Mrs. Robt.....606 N. Gaylord Ave., Ludington
Goulet, Mrs. Leo.....N. Washington Ave., Ludington
Hoffman, Mrs. Howard B.....604 E. Ludington Ave., Ludington
Martin, Mrs. W. S.....107 W. Ludington Ave., Ludington
Ostrander, Mrs. Robt.....Lakewood Dr., Lundington
Paukstis, Mrs. Charles A.....502 N. Lakeshore Dr., Ludington
Scott, Mrs. Gertrude.....806 Brother St., Ludington
Spencer, Mrs. C. M.....Scottville
Sutter, Mrs. Wm. F.....806 Dexter St., Ludington
Switzer, Mrs. G. A.....302 Lakeshore Dr., Ludington

MECOSTA-OSCEOLA-LAKE COUNTIES

Bruggema, Mrs. Jacob.....Evart
Campbell, Mrs. J. B.....320 Division, Big Rapids
Chess, Mrs. Leo.....417 W. Upton, Reed City
Franklin, Mrs. Benjamin.....Remus
Haldeman, Mrs. Jack.....228 S. Warren, Big Rapids
Hickox, Mrs. Leland A.....312 S. Warren, Big Rapids
Ivkovich, Mrs. Paul.....108 E. Upton, Reed City
Kazmers, Mrs. E.....Lakeview

Kilmer, Mrs. Paul.....350 W. Upton, Reed City
Kowaleski, Mrs. Edward.....Remus
Marsten, Mrs. Leo L.....Lakeview
Nelson. Mrs. Lorenzo.....Baldwin
Tyson, Mrs. James.....325 Mecosta, Big Rapids
Van Auken, Mrs. Edward.....115 N. Stewart, Big Rapids
Walters, Mrs. Mames E.....624 Michigan, Big Rapids
White, Mrs. John A.....123 Cedar, Big Rapids
Yoe, Mrs. Gordon.....309 Rust, Big Rapids

MENOMINEE COUNTY

Agneberg, Mrs. Nils.....221 First St., Menominee
Brukardt, Mrs. Herman.....714 14th St., Menominee
Clay, Mrs. Joel.....1031 First St., Menominee
Dewane, Mrs. Francis....1409 Fourteenth St., Menominee
Flanagan, Mrs. Clarence.....915 Eleventh St., Menominee
Glickman, Mrs. Grant.....1603 32nd St., Menominee
Gonty, Mrs. Arthur.....Frontenac Beach, Menominee
Heidenreich, Mrs. John.....Daggett
Jones, Mrs. William.....101 Fifteenth St., Menominee
Jones, Mrs. William, Jr.....1834 First St., Menominee
Kerwell, Mrs. Karm.....Stephenson
Olson, Mrs. Robert.....1713 22nd St., Menominee
Peterson, Mrs. Allan R.....Daggett
Rogers, Mrs. Raymond....3213 Sixteenth St., Menominee
Towey, Mrs. John.....Pinecrest Sanatorium, Powers
Whitmarsh, Mrs. Thomas.....Stephenson

MIDLAND COUNTY

Ashcom, Mrs. Richard.....15 Dartmoor, Midland
Ballmer, Mrs. Robert.....1111 W. Sugnet, Midland
Bernier, Mrs. Joseph.....Box 26, Sanford
Blackhurst, Mrs. J. Frederick....4506 Hampshire, Midland
Blackhurst, Mrs. Robert.....Valley Drive, Midland
Bowsher, Mrs. Robert.....1227 W. Sugnet, Midland
Bridge, Mrs. Robert Glen.....3600 Boston St., Midland
Buskirk, Mrs. Maurice.....310 W. Nelson, Midland
Carsons, Mrs. Ada.....1414 Sugnet Rd., Midland
Chenoweth, Mrs. Maynard.....3066 E. Gordonville Rd., Midland
Cook, Mrs. William.....1104 W. Park Drive, Midland
Devlin, Mrs. James.....4300 Washington. Midland
Fields, Mrs. Dozier.....515 W. Main, Midland
Gay, Mrs. Harold.....Coleman
Giering, Mrs. Charles.....3703 Hillgrove Ct., Midland
Gordon, Mrs. Harold.....1423 Clover Ct., Midland
Grant, Mrs. Robert.....210 E. Sugnet, Midland
Gronemeyer, Mrs. William.....1009 St. Andrews Dr., Midland
Hefferman, Mrs. Daniel....1213 E. St. Andrews, Midland
High, Mrs. Charles.....3115 Isabella Rd., Midland
Holder, Mrs. Benjamin.....534 Woodcock, Midland
Howe, Mrs. Irvin.....1115 W. Sugnet, Midland
Howell, Mrs. Richard.....3418 Applewood, Midland
Ittner, Mrs. Martin.....509 W. Sugnet, Midland
Kaasa, Mrs. Laurin.....2011 Ashman, Midland
Landsborough, Mrs. Hester.....127 W. Nelson, Midland
Linsemann, Mrs. Karl.....2604 Manor Dr., Midland
Marks, Mrs. V. A.....4405 Hampshire, Midland
Maynard, Mrs. William.....Star Route, Sanford
Meisel, Mrs. E. H.....413 Lingle Lane, Midland
Moench, Mrs. G. Frederick.....Center St., Sanford
O'Hora, Mrs. Bernard.....3801 Applewood, Midland
Pike, Mrs. Melvin.....220 W. Nelson, Midland
Pollock, Mrs. Robert.....4202 Berkshire Ct., Midland
Poznak, Mrs. Leonard.....1411 Crane Ct., Midland
Randolph, Mrs. Stephen.....410 Jerome, Midland
Redmon, Mrs. William.....1308 Airfield Lane, Midland
Schoff, Mrs. Charles.....2708 Glendale. Midland
Shriner, Mrs. John.....1524 Airfield Lane, Midland
Sherk, Mrs. Joseph.....161 Revere, Midland
Ulmer, Mrs. George Boyd.....5714 Leeway Dr., Midland
Willison, Mrs. Charles.....3812 Greenfield Ct., Midland
Yobst. Mrs. James.....123 W. Nelson, Midland

MONROE COUNTY

Barker, Mrs. Vincent L.....104 W. Noble, Monroe
Barrett, Mrs. Clarence D.....2133 Hollywood, Monroe
Blakey, Mrs. Leonard C.....330 Godfroy, Monroe
Bond, Mrs. William W.....475 Hollywood, Monroe
Burroughs, Mrs. J. J.....322 S. Macomb, Monroe
Cigany, Mrs. Z. B.....Carleton
Douglas, Mrs. D. W.....151 Hollywood, Monroe
Dranginis, Mrs. E. J.....3085 Detroit Beach, Monroe
Flanders, Mrs. J. P.....1434 Hurd Rd., Monroe
Frary, Mrs. R. A.....505 Stratsburg Rd., Monroe
Freud. Mrs. J. W.....212 Hollywood, Monroe
Hnatchuck, Mrs. N.....Petersburg
Hunter, Mrs. M. A.....12250 Lakeshore, North Shores, Lasalle
Kelso, Mrs. S. N.....336 Cole Rd., Monroe
Laboe, Mrs. E. W.....224 Hollywood, Monroe
Lammers, Mrs. Gerald.....Ida
Loan, Mrs. George B.....1043 Riverview Ave., Monroe
Long, Mrs. E. C.....715 Hollywood, Monroe
McDonald, Mrs. T. A.....467 Hollywood, Monroe
McMillan, Mrs. J. H.....116 Hollywood, Monroe
Meier, Mrs. W. A.....306 S. Macomb, Monroe
Middleton, Mrs. W. S.....427 Hollywood, Monroe
Reisig, Mrs. A. H.....430 Hollywood, Monroe
Sanger, Mrs. E. J.....716 Hollywood, Monroe
Siffer, Mrs. J. J.....32 S. Macomb, Monroe
Sisman, Mrs. B.....524 Hollywood, Monroe
Streicher, Mrs. R. G.....212 Maywood, Monroe
Tomlinson, Mrs. L. H.....Newport (Monroe)
Wagar, Mrs. S. H.....711 Hollywood, Monroe
Weeks, Mrs. V. L.....417 E. Elm, Monroe
Wilkins, Mrs. R. W.....4941 W. Albain, Monroe
Williams, Mrs. R. J.....39 E. Elm, Monroe

MUSKEGON COUNTY

Alt, Mrs. Wm.....2315 Southwood, Muskegon
Askam, Mrs. Ralph.....Ritter Hills-Nob Hill Dr., Muskegon
Bolthouse, Mrs. Robert.....1641 Jefferson, Muskegon
Bond, Mrs. Wm.....1724 Peck St., Muskegon
Benedict, Mrs. Arthur.....1633 Clinton, Muskegon
Bloom, Mrs. Robert.....1440 Winchester, Muskegon
Bradshaw, Mrs. Park.....636 Ruddiman, North Muskegon

Bultema, Mrs. James.....4078 Highgate, Muskegon
Busard, Mrs. R. I.....3910 Highgate, Muskegon
Christophersen, Mrs. James.....1276 Lake Shore Drive, Muskegon
Clapp, Mrs. Henry.....1581 Glen Ave., Muskegon
Closz, Mrs. Harold.....1727 Jefferson, Muskegon
Clowater, Mrs. Robert.....709 Lake Drive, North Muskegon
Crawford, Mrs. John.....876 W. Seminole, Muskegon
DeLeeuw, Mrs. Henry.....4090 Highgate, Muskegon
Dykhuezen, Mrs. Harold.....962 Mona Brook Road, Muskegon
Ellis, Mrs. Nicholas J.....1408 Lexington, Muskegon
Farmer, Mrs. John.....483 Ruddiman, North Muskegon
Fleishman, Mrs. Norman.....1310 Moulton, North Muskegon
Fles, Mrs. Robert.....1713 Sanford, Muskegon
Folsom, Mrs. John.....2488 Pinegrove, Muskegon
Frandsen, Mrs. Phillip.....1714 Leahy, Muskegon
Fugate, Mrs. Edward.....3484 Osceola Drive, Muskegon
Garber, Mrs. Frank.....703 Ruddiman, North Muskegon
Garrison, Mrs. Robert.....556 Houston, Muskegon
Gillard, Mrs. James.....Bradley St., Muskegon
Griffith, Mrs. Robert.....1323 Fourth St., Muskegon
Hack, Mrs. Donald....3875 Lake Harbor Road, Muskegon
Hanley, Mrs. Wm.....4104 Harbor Point Dr., Muskegon
Harryman, Mrs. James.....1694 Jefferson, Muskegon
Hartwell, Mrs. Shattuck.....644 Lake Drive, North Muskegon
Heneveld, Mrs. Edward.....82 W. Dale, Muskegon
Heneveld, Mrs. Robert.....1458 Montague, Muskegon
Herald, Mrs. Osbie.....2313 Baker, Muskegon Heights
Holly, Mrs. Leland....3349 Scenic Drive, North Muskegon
Holly, Mrs. Leland II..3183 Scenic Dr., North Muskegon
Hopkins, Mrs. James.....2455 Winchester, Muskegon
Hornbeck, Mrs. Wm.....2321 Hadden, Muskegon
Jesson, Mrs. Robert.....Loomis Drive, Muskegon
Johnston, Mrs. Everett H.....614 Pinewood, North Muskegon
Joistad, Mrs. Arthur....Mid Oak Drive, North Muskegon
Kane, Mrs. Thomas.....1185 Scenic Drive, Muskegon
Kerr, Mrs. Howard.....2378 Hadden, Muskegon
Kislov, Mrs. Richard.....2452 Pinegrove, Muskegon
Kleaveland, Mrs. Justin.....654 Wendover, Muskegon
LeFevre, Mrs. Wm.....3033 Scenic Dr., North Muskegon
Lauretti, Mrs. Emil.....1693 Jefferson, Muskegon
Laurin, Mrs. Vilda.....3319 Scenic Dr., North Muskegon
Loder, Mrs. Lewis.....Circle Drive, North Muskegon
Lowry, Mrs. Robert.....2442 Winchester, Muskegon
Marrs, Mrs. John.....669 Wendover, Muskegon
McNair, Mrs. John.....1595 Glen, Muskegon
Medema, Mrs. Paul.....1661 Clinton, Muskegon
Meengs, Mrs. Marvin.....972 Randall, Muskegon
Miller, Mrs. Phillip.....1652 Jefferson, Muskegon
Mulder, Mrs. Lamburtus.....1918 Henry, Muskegon
Paterson, Mrs. Lester.....3458 Seneca Drive, Muskegon
Peterson, Mrs. William.....4053 Lake Harbor Rd., Muskegon
Pettinga, Mrs. Frank.....4050 Quainton, Muskegon
Prentice, Mrs. Edmund.....2325 Westwood, Muskegon
Price, Mrs. Leonard.....1182 Terrace, Muskegon
Risk, Mrs. Robert.....3980 Highgate, Muskegon
Scholle, Mrs. Norbert.....3844 Highgate, Muskegon
Shebesta, Mrs. Emil.....2342 Westwood, Muskegon
Smith, Mrs. Robert.....Southwood Drive, Muskegon
Stone, Mrs. Max.....1541 Peck St., Muskegon
Stubbart, Mrs. F. James.....1684 Randolph, Muskegon
Swedenburg, Mrs. Robert.....464 Channel Road, North Muskegon
Swenson, Mrs. Leland.....3503 Scenic Drive, North Muskegon
Teifer, Mrs. Charles.....1506 Dawes, Muskegon
Tellman, Mrs. H. Clay.....590 Ranch Road, Muskegon
Tyler, Mrs. William.....1572 Jefferson, Muskegon
Vandervelde, Mrs. Clarence.....4042 Loomis, Muskegon
VanGelder, Mrs. Wm.....626 Cambridge, Muskegon
Wagenaar, Mrs. Edward.....912 Mona Brook Road, Muskegon
White, Mrs. Warren.....1185 Harbor Point Drive, Muskegon
Wiersma, Mrs. Silas.....1357 Peck St., Muskegon
Wildgen, Mrs. Bernard.....975 Seminole Road, Muskegon
Young, Mrs. Malcolm.....697 Garber Road, Muskegon

NEWAYGO COUNTY

Black, Mrs. Benjamin F.....20 N. Darling, Fremont
Crowe, Mrs. Findlay Couttie.....1024 Swain St., White Cloud
DeYoung, Mrs. Jess J.....207 E. Elm, Fremont
Emerick, Mrs. Robert Wood....211 West Maple, Fremont
Geerlings, Mrs. Willis R.....28 E. Oak, Fremont
Geerlings, Lambert John.....6726 Lake Drive, Fremont
Klein, Mrs. John Paul.....40 E. Pine, Fremont
Masters, Mrs. Brooker Lowell.....Route #1, Box 63-A. Fremont
O'Neill, Mrs. John William.....30 N. Gibbs, White Cloud
Paxton, Mrs. Robert E.....221 S. Stewart, Fremont
Pedelty, Mrs. Norman LeRoy.....8537 Spruce, Newaygo
VandenBerg, Mrs. Tunis.....529 Iroquois Dr., Fremont

OAKLAND COUNTY

Abbott, Mrs. Vernon.....111 Illinois, Pontiac
Albert, Mrs. Donald G.....509 W. Bloomfield, Royal Oak
Albrecht, Mrs. Robert.....549 Grixdale, Pontiac
Arena, Mrs. James, Jr.....28691 Somerset Pl., Lathrup Village
Arnkoff, Mrs. Harry.....140 Illinois, Pontiac
Aulic, Mrs. Hal.....5928 Orchard Bend, Birmingham
Baker, Mrs. Robert.....765 N. Woodward, Birmingham
Bannow, Mrs. Robert.....23 Keswick, Bloomfield Hills
Barker, Mrs. Charles....4805 Charing Cross, Birmingham
Barker, Mrs. Howard....490 Martell Dr., Bloomfield Hills
Barrett, Mrs. John.....29424 Bloomfield, Lathrup Village
Bauer, Mrs. Bruce.....29424 Sherry, Madison Heights
Bauer, Mrs. Earnest.....48 Roberts, Hazel Park
Bauer, Mrs. Earnest, Jr.....28708 Hales, Madison Heights
Baylis, Mrs. Shelly.....1761 Schoenith Lane, Bloomfield Hills
Beattie, Mrs. Willard.....314 W. Maplehurst, Ferndale
Beaubien, Mrs. Mark.....460 S. Glenhurst Dr., Birmingham
Beck, Mrs. Otto.....767 Fairfax, Birmingham
Belnap, Mrs. Warren.....4510 Beech Rd., Birmingham
Berger, Mrs. Charles.....19621 Sunnybrook, Lathrup Village
Blakeney, Mrs. James.....17 Utica, Pontiac
Boileau, Mrs. Thornton.....460 Hamilton, Birmingham
Boucher, Mrs. Roman.....5451 Brookdale, Birmingham
Bowers, Mrs. Charles.....199 Barrington, Pontiac
Bradley, Mrs. E. L.....231 Starr, Pontiac
Bradley, Mrs. George.....711 Overhill Rd., Birmingham
Brady, Mrs. Neal.....18628 Devonshire, Beverly Hills
Brown, Mrs. Arnold....3599 Wards Pt. Dr., Orchard Lake
Budd, Mrs. Alexander....440 Lake Park Dr., Birmingham
Burger, Mrs. John.....32055 Telegraph, Birmingham

Burgess, Mrs. Charles.....49 Oxford, Pleasant Ridge
Burke, Mrs. Chauncey.....1123 Glengarry Cir., Birmingham
Byberg, Mrs. Robert....10445 Talbot, Huntington Woods
Cefai, Mrs. Anthony.....42 Miami, Pontiac
Cline, Mrs. Alan.....3637 Shallowbrook Rd., Bloomfield Hills
Cobb, Mrs. Leon.....2378 Maplewood, Pontiac
Cobb, Mrs. Thomas.....4415 Motorway Dr., Pontiac
Cohen, Mrs. Jack.....18019 Greenfield Rd., Detroit
Conner, Mrs. Edward.....3856 S. Millerway, Birmingham
Conrad, Mrs. Cecil....2804 Square Lake Rd., Birmingham
Cooper, Mrs. Edmund.....914 Shirley Dr., Birmingham
Cooper, Mrs. Robt.....26674 Humber, Huntington Woods
Cutler, Mrs. William.....3804 Far Hill Dr., Birmingham
Darling, Mrs. Cyrenes.....Lone Pine Ct., Bloomfield Hills
DeLawter, Mrs. Hilbert.....118 Hickory Grove Rd., Bloomfield Hills
Dobski, Mrs. Edwin.....3350 Eastpointe Lane, Bloomfield Hills
Donnelly, Mrs. William.....1153 James K. Blvd., Pontiac
Dorsey, Mrs. John.....1171 Yosemite, Birmingham
Drew, Mrs. Dale.....2665 Windemere, Birmingham
Dunn, Mrs. Lewis.....18760 San Diego, Lathrup Village
Durak, Mrs. Gerald.....1115 Worthington, Birmingham
Ekelund, Mrs. Clifford.....149 Ottawa, Pontiac 19
Elder, Mrs. Edward.....1922 Wake Robin Rd. R.R. #2, Orchard Lake
Elliott, Mrs. Robert.....524 Mohegan, Birmingham
Endress, Mrs. Zac.....1790 Tiverton, Bloomfield Hills
Ensroth, Mrs. Jack.....2166 Wycliffe, Birmingham
Esslinger, Mrs. John.....4015 W. Orchard Hill Rd., Birmingham
Evseff, Mrs. George.....2685 Amberly, Birmingham
Fink, Mrs. Jerome....4432 Quarton Rd., Bloomfield Hills
Flick, Mrs. John.....31510 Bellvine Trail, Birmingham
Foust, Mrs. Earl.....28145 Lathrup, Lathrup Village
Fox, Mrs. Ralph.....855 Ridgewood, Bloomfield Hills
Furlong, Mrs. Harold.....207 Navajo, Pontiac
Gaensbauer, Mrs. Ferdinand.....207 Illinois, Pontiac
Gariepy, Mrs. Bernard.....312 Park, Royal Oak
Gates, Mrs. Edward.....3211 Allen Rd., Ortonville
Gehring, Mrs. Harold.....17607 Magnolia Parkway, Southfield
Gehringer, Mrs. Norman.....400 Yarmouth, Birmingham
Gell, Mrs. James.....415 Marlborough, Pontiac
Gerls, Mrs. Frank.....536 W. Huron, Pontiac
Gibson, Mrs. Wellington.....216 E. Commerce, Milford
Gill, Mrs. Matthew.....3115 Franklin, R.R. #3, Bloomfield Hills
Gordon, Mrs. Clayton.....1099 Cranbrook Rd., Birmingham
Green, Mrs. Meredith.....517 W. Iroquois, Pontiac
Green, Mrs. Ralph.....24100 Stratford, Oak Park 37
Grekin, Mrs. Thomas.....18699 Muirland, Detroit
Hackett, Mrs. Daniel.....782 Owega Dr., Pontiac
Hague, Mrs. Gilbert.....276 Whittemore, Pontiac
Hasner, Mrs. Robert.....1409 Catalpa Dr., Royal Oak
Henderson, Mrs. James.....768 Oakleigh Dr., Bloomfield Hills
Henderson, Mrs. Worth.....1624 Woodsboro Dr., Royal Oak
Hendren, Mrs. Owen....16 Barbour Lane, Bloomfield Hills
Hoekman, Mrs. Aben.....1740 Hamilton, Pontiac
Hoyt, Mrs. Donald.....7530 Maceday Lk. Rd., Clarkston
Huber, Mrs. Phillip.....1724 Bassett, Royal Oak
Ignatius, Mrs. Aram.....1120 E. 9 Mile Rd., Ferndale
Jacknow, Mrs. Albert.....32227 Albert, Royal Oak
James, Mrs. Robert....3557 Baybrook Dr., Watkins Lake
Karnetz, Mrs. Ruben.....20473 Strathmore, Detroit
Katz, Mrs. Sidney.....17350 Dorset, Detroit
Kay, Mrs. Sherman.....14241 Vernon, Oak Park 37
Keeffe, Mrs. Eugene..468 Williamsbury Dr., Birmingham
Kemp, Mrs. Felix.....85 Barrington, Pontiac
Kemp, Mrs. Lloyd.....1055 Yarmouth, Birmingham
Kendrick, Mrs. Harold.....260 Cherokee, Pontiac
Ketchum, Mrs. Jesse.....4219 Manor Rd., Royal Oak
Koehler, Mrs. William....4416 Far Hill Dr., Birmingham
Kripke, Mrs. Morton.....1918 Massoit, Royal Oak
Kuhn, Mrs. Henry.....497 W. Golden Gate, Detroit
LaCore, Mrs. Ivan.....265 Josephine, Pontiac
Ladd, Mrs. James.....1023 S. Chester, Birmingham
Lahti, Mrs. Paul.....2200 Tottenham, Birmingham
Landry, Mrs. Roy.....3388 Coseyburn, Drayton Plains
Leach, Mrs. Charles.....987 Oakland, Birmingham
Leader, Mrs. Luther.....394 Cranbrook Rd., Bloomfield Hills
Levine, Mrs. Bernard.....25835 Parkwood Dr., Huntington Woods
Lichtwardt, Mrs. Harry.....4805 N. Harsdale, Bloomfield Hills
Lichtwardt, Mrs. John.....164 Maplefield, Pleasant Ridge
Longyear, Mrs. Harold.....2082 W. Long Lake Rd., Bloomfield Hills
Lawery, Mrs. Anthony.....8030 Flaystaff, Union Lake
Lutes, Mrs. Byron.....24360 Westhampton, Oak Park
Lyons, Mrs. Robert.....1917 Bayow Dr. R.R. #2, Orchard Lake
Margulis, Mrs. Ralph.....561 Merritt Lane, Birmingham
Marra, Mrs. John.....1430 Nokomis Dr., Lake Orion
Martin, Mrs. Francis....4170 Newland Dr. W. R.R. #2, Orchard Lake
McConkie, Mrs. James....2425 W. Lincoln, Birmingham
McHugh, Mrs. James.....32205 Eastlady, Birmingham
McInerney, Mrs. Thomas.....2026 Laurome, Royal Oak
McLaughlin, Mrs. John.....595 Kimberly, Birmingham
McNeill, Mrs. Howard.....225 Hickory Grove Rd., Bloomfield Hills
McPhee, Mrs. Edward.....1051 Woodlea, Birmingham
McWhirter, Mrs. Wallace.....952 Washington, Grosse Pointe
Meinke, Mrs. Herman.....817 E. 8 Mile Rd., Hazel Park
Miller, Mrs. Hazen.....1832 Greenleaf, Royal Oak
Miller, Mrs. Sidney.....709 Tottenham Rd., Birmingham
Mimura, Mrs. James.....4894 Haddington, Birmingham
Monroe, Mrs. John.....55 Neome, Pontiac
Montgomery, Mrs. John.....1623 Lloyd, Royal Oak
Nalepa, Mrs. Eugene.....2332 Rutherford Rd., Pontiac
Naz, Mrs. John.....2826 Orangegrove, Waterford
Neafie, Mrs. Charles.....493 Orchard Lake Ave., Pontiac
Niederluecke, Mrs. Donald.....7391 Biscayne Ave., R.R. #2, Milford
Norup, Mrs. John.....1772 Edgewood, Berkley
Nosanchuk, Mrs. Joseph.....197 Cherokee, Pontiac
Olsen, Mrs. Richard..3325 Franklin Rd., Bloomfield Hills
Ott, Mrs. Harold.....1090 Lake Park Dr., Birmingham
Palmer, Mrs. Hayden.....269 Ottawa Dr., Pontiac
Patrick, Mrs. Charles.....3620 Clintonville Rd., Pontiac
Payton, Mrs. Charles.....1002 Pilgrim, Birmingham
Pearce, Mrs. James.....1227 Romney, Birmingham
Pool, Mrs. Robert.....451 N. Eton, Apt. 3, Birmingham
Porter, Mrs. Kenneth..2709 Broadway Blvd., Birmingham
Prather, Mrs. Frank.....701 E. Liberty, Milford
Pridmore, Mrs. John.....493 Tilmore Dr., Pontiac
Prosser, Mrs. Mostynn.....2854 Orangegrove, Waterford
Prust, Mrs. Frank.....3210 Oakhill Dr., Birmingham
Quinn, Mrs. James..2070 W. Valley Rd., Bloomfield Hills
Raynale, Mrs. George.....423 Tooting Lane, Birmingham
Read, Mrs. James.....175 E. Hickory Grove Rd., Bloomfield Hills
Rech, Mrs. Wm.....1568 Welch Rd., Walled Lake
Reid, Mrs. Fred.....18450 Riverside Dr., Birmingham
Reid, Mrs. Robert.....4012 West 13 Mile Rd., Royal Oak
Riggs, Mrs. Harry.....3499 Franklin Rd., Bloomfield Hills
Riker, Mrs. Aaron....4050 Commerce Rd., Orchard Lake, Pontiac
Rowley, Mrs. Laurie..6700 Williams Lake Rd., Waterford
Ruskin, Mrs. David....17072 Geo. Washington, Southfield
Rupp, Mrs. Edson.....202 Crane, Royal Oak
Rush, Mrs. Alva.....4023 Far Hill Dr., Birmingham
Russell, Mrs. Vincent....9 Elm Park Blvd., Pleasant Ridge
Ruva, Mrs. Joseph.....1280 Club Dr., Bloomfield Hills
Sansone, Mrs. Thomas.....2184 Somerset Rd., Pontiac
Schirle, Mrs. Joseph.....330 Lorbetta Lane, Pontiac
Selman, Mrs. John.....2739 Heathfield, Birmingham

Selman, Mrs. Robert..65 Bloomfield Terr. Apts., Pontiac
Sempere, Mrs. Charles.....2225 Avondale, Pontiac
Sewell, Mrs. Geo.....6181 Indianwood Trial, Birmingham
Shadley, Mrs. Maxwell.....94 Ottawa Dr., Pontiac
Sheffield, Mrs. Loren.....4651 Motorway Dr., Pontiac
Sheridan, Mrs. Francis.....1018 Pinehurst, Royal Oak
Simpson, Mrs. John.....1822 Washington, Birmingham
Smith, Mrs. Donald.....135 Wenonah Dr., Pontiac
Smith, Mrs. George.....4032 W. Orchard Hill Dr., Birmingham
Somers, Mrs. Donald.....4205 Valley Forge, Birmingham
Somerville, Mrs. Wm.....145 Cambridge, Pleasant Ridge
Spencer, Mrs. Lloyd.....26939 Huntington, Huntington Woods
Spoehr, Mrs. Eugene..17 Elm Park Blvd., Pleasant Ridge
Spohn, Mrs. Earle.....414 Hendrie Blvd., Royal Oak
Stageman, Mrs. John....6065 Middle Lake Rd., Clarkston
Stahl, Mrs. Harold.....850 Lapeer Rd., Oxford
Stanley, Mrs. Wm.....24 Cambridge Blvd., Pleasant Ridge
Steinberg, Mrs. Norman.....1028 Ardmoor, Birmingham
Stratton, Mrs. Donald.....4367 W. Orchard Hill, Birmingham
Stuecheli, Mrs. Milton....1084 Willow Lane, Birmingham
Sutton, Mrs. Palmer.....30153 Bristol Lane, Birmingham
Touma, Mrs. Alfred.....3 Norwich, Pleasant Ridge
Tuck, Mrs. Raymond.....1153 James K. Blvd., Pontiac
Urwiller, Mrs. Kenneth.....1772 Taunton, Birmingham
Vandenberg, Mrs. Kenneth.....4045 Lakewood, Pontiac
VanZoreren, Mrs. Jay..937 Rock Spring Rd., Birmingham
Virga, Mrs. George.....1602 Cedar Hill, Royal Oak
Wake, Mrs. Douglas.....1406 Woodsboro Dr., Royal Oak
Walser, Mrs. Howard.....1300 Northlawn, Birmingham
Wangner, Mrs. William.....750 Ardmoor, Birmingham
Ward, Mrs. William Paul....6631 Castle Dr., Birmingham
Watson, Mrs. Thomas.....1320 Latham, Birmingham
Weaver, Mrs. Arthur.....3080 Old Orchard Dr., Pontiac
Webber, Mrs. Lynn.....7350 Cooley Lake Rd., Pontiac
Wegrzyn, Mrs. Geo.....2556 Endsleigh Dr., Birmingham
Wendling, Mrs. Dieter..28749 Hollywood Ave., Roseville
Wessel, Mrs. Robert.....2152 Tottenham, Birmingham
Westfall, Mrs. Edwin.....3745 Cumberland Rd., Berkley
White, Mrs. R. Hamilton.....552 Mohegan, Birmingham
Wiant, Mrs. John.....1205 Chesterfield, Birmingham
Wilkinson, Mrs. Arthur....843 Arlington Dr., Birmingham
Williams, Mrs. John.....6570 Commerce Rd., R. #1, Orchard Lake
Willis, Mrs. Robert.....26266 Evelyn Ct., Franklin
Woodward, Mrs. Robert.....2364 Mulberry Rd., Pontiac
Zacheim, Mrs. Herschel.....13102 Talbot, Huntington Woods
Zimmerman, Mrs. Walter..32340 Sylvan La., Birmingham
Zujke, Mrs. Alphonse.....132 Illinois, Pontiac

OTTAWA COUNTY

Arendhorst, Mrs. Wm.....131 E. 31st St., Holland
Beernink, Mrs. E.....Grand Haven
Bloemendaal, Mrs. D. C.....W. Main St., Holland
Boersma, Mrs. Vernon L.....97 E. 30th St., Holland
Bonzelaar, Mrs. Alvin.....888 Allen Dr., Holland
DeYoung, Mrs. Fred.....107 Barber, Spring Lake
DeWitt, Mrs. D.....Grand Haven
Kemme, Mrs. G.....R.R. #3, Zeeland
Kools, Mrs. Willis C.....194 W. 11th St., Holland
Kuipers, Mrs. S. Walter.....93 E. 29th St., Holland
Rypkema, Mrs. Wm.....Gladys St., Grand Haven
Smit, Mrs. George.....129 W. 24th St., Holland
TenHaven, Mrs. Ralph.....Grand Haven
VanAppledorn, Mrs. Chester.....1067 South Shore Dr., Holland
Veenstra, Mrs. Bernard.....116 S. 4th St., Grand Haven
VerDuine, Mrs. John.....1615 Gladys St., Grand Haven
Wells, Mrs. Kenneth.....411 Barber, Spring Lake
Westrate, Mrs. Wm., Sr.....617 State St., Holland
Westrate, Mrs. Wm., Jr.....55 W. 14th St., Holland
Winter, Mrs. John.....726 State St., Holland

SAGINAW COUNTY

Ackerman, Mrs. Gerald L...316 Brockway Place, Saginaw
Albers, Mrs. M. J.....218 Ardussi St., Saginaw
Anderson, Mrs. Wm. K.....845 St. Andrews Rd., Saginaw
App, Mrs. Robert G.....1911 Seminole, Saginaw
Bass, Mrs. Vernon V.....420 Golfview, Saginaw
Bishop, Mrs. H. Mortimer.....28 Benton Rd., Saginaw
Bratrud, Mrs. T. E.....29 W. Hannum Blvd., Saginaw
Brender, Mrs. Frederick.....105 Hubinger, Frankenmuth
Bruggers, Mrs. Lawrence.....204 Ardussi St., Saginaw
Bucklin, Mrs. Robert.....2112 Adams Blvd., Saginaw
Bullington, Mrs. Bert M.....3 Davis Dr., Saginaw
Burnett, Mrs. Quinter M.....1714 Union St., Saginaw
Busch, Mrs. Frank J.....40 E. Hannum Blvd., Saginaw
Butler, Mrs. Milton G.....1400 Hemmeter Rd., Saginaw
Cady, Mrs. Donald J.....2230 Hemmeter Rd., Saginaw
Cady, Mrs. Frederick J.....8590 Gratiot Rd., Saginaw
Cady, Mrs. F. J., Jr.....61 Benton Rd., Saginaw
Cambridge, Mrs. Vernal W.....1219 Fitzhugh St., Saginaw
Cameron, Mrs. Allan K.....1314 S. Jefferson St., Saginaw
Campbell, Lloyd A.....335 Brockway Place, Saginaw
Caumartin, Mrs. Hugh T...1537 S. Washington, Saginaw
Chisena, Mrs. Peter R.....6227 Dixie Hwy., Bridgeport
Claytor, Mrs. Archer A.....3320 Janes Rd., Saginaw
Cortopassi, Mrs. Andre J.....326 S. Washington, Saginaw
Cortopassi, Mrs. V. E.....221 Ardussi St., Saginaw
Cory, Mrs. Charles W.....4 Ardmore Place, Saginaw
Cresswell, Mrs. Thomas.....7210 Cresswell Rd., Saginaw
Curts, Mrs. James.....1 East Hannum Blvd., Saginaw
Davenport, Mrs. Clyde P.....4550 Howley Ct., Saginaw
DeYoung, Mrs. Wm. A.....30 Bretton St., Saginaw
Durman, Mrs. Donald C.....1530 Ottawa Blvd., Saginaw
Ely, Mrs. Cecil W.....3735 Eton St., Saginaw
Farley, Mrs. Albert W.....4470 Brockway, Saginaw
Feeheley, Mrs. Robert D.....1621 Coolidge St., Saginaw
Fleschner, Thomas E...744 W. Birch Run Rd., Birch Run
Gage, Mrs. David P.....134 Borland, Saginaw
Galsterer, Mrs. Edwin C.....417 Brockway Place, Saginaw
Gamon, Mrs. Adam E.....905 N. Michigan, Saginaw
Gardner, Mrs. Joe H.....2503 Adams Blvd., Saginaw
Gerard, Mrs. Roy J.....3450 Adams St., Saginaw
Gilmore, Mrs. Robert D.....246 West Saginaw, Merrill
Goldner, Mrs. Richard D.....8285 Dixie Hwy., Frankenmuth
Gomon, Mrs. Louis D.....16 Edgewood Rd., Saginaw
Goodsell, Mrs. John O.....132 Graham St., Saginaw
Goodwin, Mrs. Jack E.....134 Borland St., Saginaw
Harvie, Mrs. Lloyd C.....417 Ardussi, Saginaw
Heavenrich, Mrs. Robert M.....112 Ardussi St., Saginaw
Hester, Mrs. Eustace G.....2525 Warwick, Saginaw
Hill, Mrs. Victor L.....1270 Hemmeter, Saginaw
Hyslop, Mrs. Wm. T.....2008 Harry St., Saginaw
James, Mrs. John W.....253 Snow St., Saginaw
Jarvi, Mrs. Rudolph M...1125 Washburn Pl. W., Saginaw
Jiroch, Mrs. Ralph S.....722 S. Warren St., Saginaw
Johnstone, Mrs. Kermit.....1050 Fischer Dr., Saginaw
Kerr, Mrs. William B.....1903 N. Bond, Saginaw
Keyes, Mrs. James T.....8152 Main St., Birch Run
Kickham, Mrs. Edward F.....2525 Mershon St., Saginaw
Kolesar, Mrs. Robert G.....320 Ardussi, Saginaw
Kowals, Mrs. Francis V.....1280 Glendale, Saginaw
Kretschmer, Mrs. Thomas V.....700 Remington, Saginaw
Lassignal, Mrs. Jules C.....1587 Delta Drive, Saginaw

Ling, Mrs. Kenneth C.....Hemlock
Lippet, Mrs. Deverous H.....1609 Center Rd., Saginaw
Lohr, Mrs. Oliver W.....614 Madison St., Saginaw
Lohr, Mrs. Thomas O.....325 Superior St., Saginaw
Luger, Mrs. Frederick E.....1970 N. River Rd., Saginaw
Lurie, Mrs. Robert I.....58 Davis Dr., Saginaw
MacKinnon, Mrs. Edwin D.....1616 Court St., Saginaw
Mahaney, Mrs. Thomas P.....212 S. Granger St., Saginaw
Manning, Mrs. J. Edward.....6 Center Woods, Saginaw
Manning, Mrs. John W.....203 Ardussi, Saginaw
Markey, Mrs. Francis L.....824 Sutton, Saginaw
Martzowka, Mrs. Wm. P...2330 Delaware Blvd., Saginaw
Mason, Mrs. William G.....814 N. Fayette, Saginaw
Matthews, Mrs. Harry C.....1621 Lathrup St., Saginaw
Mayne, Mrs. Harold E.....1585 Glendale, Saginaw
McKinney, Mrs. Alexander R.....1403 Howard, Saginaw
Meyer, Mrs. Henry J.....6243 Dixie Hwy., Bridgeport
Miller, Mrs. Glenn F.....2224 Mershon, Saginaw
Moon, Mrs. A. Raymond.....1008 Hancock, Saginaw
Morgrette, Mrs. James.....1286 Avalon St., Saginaw
Mudd, Mrs. Richard D.....1001 Hoyt St., Saginaw
Murphy, Mrs. Albert P.....201 Superior St., Saginaw
Murray, Mrs. Morris J.....1925 Coolidge St., Saginaw
Nelson, Mrs. Oscar A.....1654 Lathrup St., Saginaw
Noble, Mrs. Paul R.....661 Westfield, Saginaw
Northway, Mrs. Robert O.....12 Edgewood Rd., Saginaw
Novy, Mrs. Frank O.....420 S. Jefferson Ave., Saginaw
Olson, Mrs. Carl Porter.....2505 Court St., Saginaw
Ostrander, Mrs. Frank W...281 Washington St., Freeland
Phillips, Mrs. Homer A.....2420 Adams Blvd., Saginaw
Pietz, Mrs. Frederick.....2139 Gratiot, Saginaw
Powers, Mrs. Robert F.....142 Wylie Court, Saginaw
Prather, Mrs. Perry.....2230 Marlou Court, Saginaw
Richards, Mrs. Ned W.....1326 Delta Drive, Saginaw
Richter, Mrs. Harry J.....2305 Adams Blvd., Saginaw
Roggen, Mrs. Ivan.....402 W. Johnson, Zilwaukee
Ruskin, Mrs. David B.....246 Lockwood, Saginaw
Sample, Mrs. John T.....602 Rust, Saginaw
Sargent, Mrs. Donald V.....4680 Ashland Dr., Saginaw
Schneider, Mrs. A. N.....1902 N. Bond, Saginaw
Sharp, Mrs. Martin C.....2202 Barnard, Saginaw
Shek, Mrs. John L.....2618 Court St., Saginaw
Sheldon, Mrs. Suel A.....77 Elmview Ct., Saginaw
Sherman, Mrs. John W.....1642 Hemmeter Rd., Saginaw
Siler, Mrs. Delbert.....47 Ardmore Pl., Saginaw
Skrowronski, Mrs. Casimer A.....1401 E. Genesee Ave., Saginaw
Slack, Mrs. Walter K.....625 S. Jefferson St., Saginaw
Slade, Mrs. Homer G.....1667 S. Washington St., Saginaw
Stahley, Mrs. Edward H.....1900 Coolidge, Saginaw
Stander, Mrs. A. Carl.....1411 Court St., Saginaw
Stewart, Mrs. George W.....4343 State St., Saginaw
Sulfridge, Mrs. Hugh L.....4504 N. River Rd., Freeland
Thompson, Mrs. Arthur B.....2144 Ottawa, Saginaw
Tiedke, Mrs. Gunther E...2339 Delaware Blvd., Saginaw
Toshach, Mrs. Clarence E.....3655 Schust Rd., Saginaw
Toteff, Mrs. Robert.....No. 2 Chippewa Ct., Saginaw
Tramitz, Mrs. Melvin.....3002 Adams, Saginaw
Underhill, Mrs. Wm. G.....214 Trier, Saginaw
Vitu, Mrs. Robert L.....4115 Vera St., Saginaw
Volk, Mrs. Vladimir K.....3340 Hospital Rd., Saginaw
Webb, Mrs. Walter L.....3002 S. Washington, Saginaw
Weiss, Mrs. Arno W.....4710 Ashland Dr., Saginaw
Westlund, Mrs. Norman.....131 S. Charles, Saginaw
Wright, Mrs. Edwin M.....128 Larch, Saginaw
Yntema, Mrs. Stuart.....3 E. Hannum, Saginaw

ST. CLAIR COUNTY

Bailey, Mrs. Robert.....4589 Lakeshore Rd., Port Huron
Banting, Mrs. Kenneth.....3540 Gratiot Ave., Port Huron
Barss, Mrs. Joseph.....2815 Tenth Ave., Port Huron
Battley, Mrs. John.....2038 Military St., Port Huron
Beck, Mrs. Frank.....2906 Military St., Port Huron
Beer, Mrs. Joseph.....711 N. Riverside, St. Clair
Bennett, Mrs. William.....Yale
Borden, Mrs. Charles....4520 Lakeshore Rd., Port Huron
Bottomley, Mrs. Thos.....4996 Lakeshore Rd., Port Huron
Boughner, Mrs. Walter.....325 Pleasant St., Algonac
Bowden, Mrs. William..130 Washington St., Marine City
Bridge, Mrs. Ezra Volk.....416 Edison Blvd., Port Huron
Cantwell, Mrs. John D., Jr...3145 Conger St., Port Huron
Carris, Mrs. Robert.....Algonac
Chafty, Mrs. Mahmoud.....1745 Minnesota, Marysville
Cleland, Mrs. William.....1320 Court St., Port Huron
Clifford, Mrs. Robert.....910 N. Riverside, St. Clair
Clyne, Mrs. Benjamin.....Yale
Coury, Mrs. John, Jr.....4990 Lakeshore Rd., Port Huron
Davison, Mrs. Wm.....2920 Military St., Port Huron
Dinnen, Mrs. Wm.....3202 Riverside Dr., Port Huron
Douvas, Mrs. Nicholas.....4200 Gratiot Ave., Port Huron
Franke, Mrs. Armin.....4021 N. River Rd., Port Huron
Fulton, Mrs. Harold.....3229 Waldheim Dr., Port Huron
Gilmore, Mrs. John Roger.....4830 Lakeshore Rd., Port Huron
Gholz, Mrs. Anthony.....1725 Court St., Port Huron
Hazledine, Mrs. Herbert John.....4406 Gratiot Ave., Port Huron
Holcomb, Mrs. Russell.....141 S. Main St., Marine City
Hoyt, Mrs. Charles.....2548 Military St., Port Huron
Kahn, Mrs. O. B.....Capac
Kirban, Mrs. Harry.....6040 Lakeshore Rd., Port Huron
Kirker, Mrs. Findlay.....1601 N. River Rd., St. Clair
Koch, Mrs. Donald.....4802 Lakeshore Rd., Port Huron
Lauridsen, Mrs. James.....3441 Conger St., Port Huron
Licker, Mrs. Reuben.....215 Gratiot Blvd., Marysville
Ludwig, Mrs. Claud.....3550 Stone St., Port Huron
Ludwig, Mrs. Frederick.....2864 Military St., Port Huron
Lugg, Mrs. Robert.....3023 Gratiot Ave., Port Huron
Mohney, Mrs. Glenn.....4458 Gratiot Ave., Port Huron
Morris, Mrs. Alvin.....816 Sanborn St., Port Huron
Novak, Mrs. Walter.....3150 Waldheim Dr., Port Huron
Patterson, Mrs. Dorsey.....622 Huron Ave., Port Huron
Pollock, Mrs. Donald....5014 Lakeshore Rd., Port Huron
Raftery, Mrs. Michael....3121 E. Village La., Port Huron
Rowe, Mrs. Robert.....3360 West Water St., Port Huron
Sands, Mrs. George.....3227 Gratiot Ave., Port Huron
Selby, Mrs. Clarence.....1916 Military St., Port Huron
Serniac, Mrs. John.....140 S. Main St., Yale
Sites, Mrs. Edgar C.....2704 Military St., Port Huron
Tisdel, Mrs. James.....2557 Military St., Port Huron
Tomsu, Mrs. Glenn.....3180 Gratiot Ave., Port Huron
Townley, Mrs. Charles.....2815 Military St., Port Huron
Treadgold, Mrs. Douglas....2930 Palmer Ct., Port Huron
Ulmer, Mrs. Arthur.....4318 Gratiot Ave., Port Huron
Van Rhee, Mrs. George.....3127 Conger St., Port Huron
Walker, Mrs. Sidney.....5174 Lakeshore Rd., Port Huron
Wass, Mrs. Henry.....923 North Riverside, St. Clair
Yost, Mrs. Kenneth.....3130 Riverside Dr., Port Huron

ST. JOSEPH COUNTY

Berg, Mrs. Lawrence.....106 E. Chicago, Sturgis
Bradley, Mrs. Donald.....428 Burr Oak Rd., Colon
Braham, Mrs. William.....105 N. Lakeview, Sturgis
Brothers, Mrs. Paul.....611 Virginia, Sturgis
Brunson, Mrs. Allen.....Mortimer St., Sturgis
Evans, Mrs. Robert.....105 S. Lakeview, Sturgis
Fiegel, Mrs. S. A.....500 Michigan, Sturgis
Fortner, Mrs. Roscoe.....R.F.D. #1, Constantine

Jacobowitz, Mrs. John.....222 West St., Three Rivers
Lepard, Mrs. Olin.....606 E. Chicago Rd., Sturgis
O'Dell, Mrs. Charles W.....East Hoffman, Three Rivers
O'Dell, Mrs. John.....721 Elm St., Three Rivers
Pengotti, Mrs. Stanley.....402 Centreville, Three Rivers
Porter, Mrs. Clark.....196 E. Michigan, Three Rivers
Schimnoski, Mrs. Donald.....R.F.D. #1, Three Rivers
Shaw, Mrs. George.....R.F.D. #2, Three Rivers
Sheldon, Mrs. John.....610 Cherry St., Sturgis
Smith, Mrs. Robert.....160 Palmer Ave., Colon
Weisheit, Mrs. Heinz.....200 Michigan, Sturgis
Zimont, Mrs. Charles.....465 Clinton, Constantine
Zimont, Mrs. Roy.....435 White Pigeon Rd., Constantine

SANILAC COUNTY

Blanchard, Mrs. Ernest W.....Deckerville
Cripps, Mrs. James.....Marlette
Gift, Mrs. Weldon A.....Marlette
Hart, Mrs. Robert.....Croswell
Jayson, Mrs. Michael.....Marlette
McCrea, Mrs. John W.....Marlette
McGunegle, Mrs. Keate.....Sandusky
Muir, Mrs. Neal.....Croswell
Tweedie, Mrs. Evans G.....Sandusky
Tweedie, Mrs. S. Martin.....Sandusky
Webster, Mrs. John Clyde.....Marlette
Winfield, Mrs. Raymond J.....Marlette

SHIAWASSEE COUNTY

Arnold, Mrs. Alfred L.....Ovid
Austin, Mrs. Eugene S.....1260 Ada St., Owosso
Bach, Mrs. Norman F.....1201 N. Washington St., Owosso
Bjarnesen, Mrs. Walter.....Durand
Brown, Mrs. Richard C.....658 First St., Owosso
Chipman, Mrs. Elwood.....502 W. Williams St., Owosso
Ford, Mrs. Wm. J. A.....1310 Shady Lane Dr., Owosso
Graves, Mrs. James H.....150 South Norton St., Corunna
Harroun, Mrs. Robert V.....205 W. Oliver St., Owosso
Lutton, Robert.....1423 Olmstead St., Owosso
Merz, Mrs. Walter L.....1409 N. Water St., R. #3, Owosso
Moore, Mrs. Phillips J.....Riverbend Dr., Owosso
Morin, Mrs. Richard.....Durand
Phillips, Mrs. Roland L.....1208 N. Dewey, Owosso
Pochert, Mrs. Roland C.....1254 N. Shiawassee, Owosso
Richards, Mrs. Chester.....Durand
Sahlmark, Mrs. Joseph F.....1234 Ada St., Owosso
Sauer, Mrs. Peter.....717 N. Water St., Owosso
Slaugh, Mrs. Earl.....Elsie
Weinkauf, Mrs. Wm. F.....415 Mack St., Corunna
Weston, Mrs. Claude L...1226 N. Washington St., Owosso

TUSCOLA COUNTY

Ballard, Mrs. James H.....Cass City
Cook, Mrs. Raymond....1465 W. Seena Court, Essexville
Dickerson, Mrs. Willard W.....Caro State Hosp., Caro
Donahue, Mrs. H. Theron.....Cass City
Flett, Mrs. Richard O.....Millington
Gilbert, Mrs. Donald E.....45 W. Turner, Mayville
Gugino, Mrs. Frank.....Reese
Howlett, Mrs. Robert R.....624 West Frank, Caro
Miles, Mrs. Edward J.....215 West Bush St., Caro
Nigg, Mrs. Herbert L.....308 S. State St., Caro
Savage, Mrs. Lloyd L.....521 West Burnside, Caro

VAN BUREN COUNTY

Boothby, Mrs. Carl F.....Hartford
Boothby, Mrs. Fred M.....Box 218, Lawrence
Copeland, Mrs. Evan.....Decatur
Diephuis, Mrs. Bert.....42 Cass St., South Haven
Dillon, Mrs. T. J.....Paw Paw
Gano, Mrs. Avison.....38 E. Monroe, Bangor
Holm, Mrs. Leo H.....Box 424, Gobles
Johnson, Mrs. Harold.....Paw Paw
Kleber, Mrs. John A.....311 Center St., South Haven
Loomis, Mrs. F. J.....Box 106, Paw Paw
Millard, Mrs. David J.....315 Pine St., Paw Paw
Parks, Mrs. Arthur E.....Lawton
Stagg, Mrs. Adelbert L.....9 N. Maple St., Hartford
Stagg, Mrs. G. Lee.....Hartford
Steele, Mrs. Arthur.....725 N. Kalamazoo, Paw Paw
Ten Houten, Mrs. Chas.....215 N. Kalamazoo, Paw Paw
Urist, Mrs. Martin.....Route #1, South Haven
Young, Mrs. William.....Lawton

WASHTENAW COUNTY

Alford, Mrs. Barry H.....14001 Beck Rd., Plymouth
Allen, Mrs. Arthur W.....5 Harvard Pl., Ann Arbor
Bailey, Mrs. Robt. W...1615 S. Stadium Blvd., Ann Arbor
Banghart, Mrs. Norman L.....1250 Ferdon, Ann Arbor
Barlow, Mrs. R. Craig.....2229 Glendaloch, Ann Arbor
Barr, Mrs. Albert S.....1312 Brooklyn Ave., Ann Arbor
Barss, Mrs. Wm. A.....1216 Westmoorland, Ypsilanti
Bassow, Mrs. Paul H...2220 Washtenaw Ave., Ann Arbor
Bauer, Mrs. Gerhard H.....1612 Granger, Ann Arbor
Behrman, Mrs. Samuel J.....2309 Yost, Ann Arbor
Beierwaltes, Mrs. Wm. H.....1885 Fuller Rd., Ann Arbor
Belote, Mrs. G. H.....1710 Morton, Ann Arbor
Bender, Mrs. Leon. F.....480 Huntington Dr., Ann Arbor
Bicknell, Mrs. John N.....1381 Jeffery St., Ypsilanti
Bird, Mrs. H. Waldo....325 Barton Shores Dr., Ann Arbor
Bosch, Mrs. Jan K.....Thorn Apple Lane, Northville
Bostian, Mrs. David W.....1717 Chandler, Ann Arbor
Botch, Mrs. Edmund S.....1055 Chestnut Rd., Ann Arbor
Brewer, Mrs. Wilson K.....4255 Washtenaw Rd., Ann Arbor
Brown, Mrs. Wm. E., III.....1517 Granger, Ann Arbor
Campbell, Mrs. Darrell A...617 Stratford Dr., Ann Arbor
Carron, Mrs. Dean P.....1330 Glendaloch, Ann Arbor
Child, Mrs. Chas. G...3202 North Maple Rd., Ann Arbor
Clyde, Mrs. Ensign.....1246 Sheridan, Plymouth
Coller, Mrs. Frederick A.....2105 Wallingford Rd., Ann Arbor

Crook, Mrs. Clarence E.....2112 Wallingford Rd., Ann Arbor
Cummings, Mrs. Howard H.....1527 Packard St., Ann Arbor
Currier, Mrs. Robert.....1029 Westaire, Ann Arbor
Curtis, Mrs. Arthur C.....1070 Chestnut, Ann Arbor
Curtis, Mrs. Edward.....714 Henry St., Ann Arbor

DeJong, Mrs. Russell N.....1526 Harding, Ann Arbor
DeTar, Mrs. John.....55 W. Main, Milan
DeWeese, Mrs. Marion S.....20 Heatheridge, Ann Arbor
Dillman, Mrs. Richard S.....529 Fifth, Ann Arbor
Doffin, Mrs. Wilbur E.....2210 Melrose, Ann Arbor
Donaldson, Mrs. Samuel W.....2128 Melrose, Ann Arbor
Doorn, Mrs. Henry A.....1110 Miner, Ann Arbor
Dukay, Mrs. Alexander....Ypsilanti State Hosp., Ypsilanti

Eberhard, Mrs. Theodore P.....2210 Hill St., Ann Arbor
Edmunds, Mrs. Wm. F.....1303 Westmoorland, Ypsilanti
Engelke, Mrs. Otto K.....810 Hutchins, Ann Arbor
Evans, Mrs. Tommy N.....1001 Belmont, Ann Arbor
Falls, Mrs. Harold F.....1525 Harding Rd., Ann Arbor
Feldkamp, Mrs. Lee E.....1360 Hartsough, Plymouth
Fink, Mrs. George C.....411 Linda Vista, Ann Arbor
Fisher, Mrs. Joseph V.....415 Washington, Chelsea
Fox, Mrs. Winslow G.....307 Linda Vista, Ann Arbor
Fralick, Mrs. F. Bruce.....2101 Belmont Rd., Ann Arbor
French, Mrs. A. James..409 Mark Hannah Pl., Ann Arbor
Frost, Mrs. Lyle W.....309 N. Washington, Ypsilanti
Frye, Mrs. Carl H.....2025 Hill St., Ann Arbor
Furstenberg, Albert G.....2240 Belmont, Ann Arbor

Ganzhorn, Mrs. Edwin C.....2705 Whitmore Lake Rd., Ann Arbor
Getting, Mrs. Valdo A...1200 Arlington Blvd., Ann Arbor
Goldsmith, Mrs. Robert I.....1211 Prospect, Ann Arbor
Gotz, Mrs. Alexander.....709 Sunset Rd., Ann Arbor
Gould, Mrs. Stuart M.....2030 Hill St., Ann Arbor
Grabb, Mrs. Wm. C.....1310 Pamona Rd., Ann Arbor
Grawn, Mrs. Frank A.....604 Pearl St., Ypsilanti

Hegerman, Mrs. Geo. W.....2124 Tuomy Rd., Ann Arbor
Haight, Mrs. Cameron.....2112 Vinewood, Ann Arbor
Hammond, Mrs. Walt. W., Jr...1312 Maple St., Plymouth
Harrell, Mrs. Everett R.....2112 Copley, Ann Arbor
Harris, Mrs. Bradley M.....206 S. Washington, Ypsilanti
Harris, Mrs. Scott T.....1144 Roosevelt Blvd., Ypsilanti
Henderson, Mrs. John W.....2113 Devonshire, Ann Arbor
Hildebrandt, Mrs. H. Mark.....1223 Morningside Dr., Ann Arbor
Himler, Mrs. Leonard E.....1225 Fair Oaks Pwy., Ann Arbor
Hodges, Mrs. Fred J.....5 Highland Lance, Ann Arbor
House, Mrs. Frederic B.....1240 Crosby Crescent, Ann Arbor
Howard, Mrs. W. Leonard.....47787 W. 8 Mile Rd., Northville
Hubbard, Mrs. Wm.....2601 Brockman Blvd., Ann Arbor

Johnston, Mrs. Franklin D...1761 Westridge, Ann Arbor
Jones, Mrs. John R.....1612 Shadford, Ann Arbor
Joseph, Mrs. Robert.....2520 Dalton Ave., Ann Arbor

Kabza, Mrs. Theo. C.....2222 Parkwood Ave., Ann Arbor
Kambly, Mrs. Arnold.....1075 Country Club Rd., Ann Arbor
Kemper, Mrs. John W.....1312 Brooklyn, Ann Arbor
Kern, Mrs. Wheeler H...24801 Fairmont Dr., Dearborn
Kittleson, Mrs. A. C.....1717 Pontiac Rd., Ann Arbor
Kivi, Mrs. Louis P.....1619 Kirtland, Ann Arbor
Koepke, Mrs. George H...1488 Woodland Dr., Ann Arbor
Korst, Mrs. Donald R.....1214 Pomona St., Ann Arbor

LaFever, Mrs. Sidney L.....2131 Melrose, Ann Arbor
LaVielle, Mrs. Carroll J.....1500 Kirtland Dr., Ann Arbor
Law, Mrs. John L.....1706 Cambridge Rd., Ann Arbor
Lovell, Mrs. Robert G.....725 Sunset Rd., Ann Arbor
Lowry, Mrs. Claude M.....1707 Shadford, Ann Arbor
Magee, Mrs. Kenneth R.....1109 Heatherway, Ann Arbor
Magielski, Mrs. John E.....2355 Londonderry Rd., Ann Arbor
Marshall, Mrs. Mark.....918 Forest Ave., Ann Arbor
Martin, Mrs. Donald W.....212 N. Mansfield, Ypsilanti
Mason, Mrs. Stephen.....1908 Scotwood, Ann Arbor
Maxwell, Mrs. James H.....2139 Melrose, Ann Arbor
McCabe, Mrs. Brian F.....304 Wilton, Ann Arbor
McWilliams, Mrs. John R.....2402 Brockman, Ann Arbor
Milford, Mrs. Albert F.....1203 Whittier Rd., Ypsilanti
Morley, Mrs. George W.....2504 Dorchester, Ann Arbor
Morris, Mrs. Joseph D.....1801 Weldon Blvd., Ann Arbor
Muehlig, Mrs. George.....1520 White St., Ann Arbor

Newton, Mrs. Charles W...2120 Wallingford, Ann Arbor

Obenauf, Mrs. Walter H.....State Hosp., Ypsilanti
O'Connor, Mrs. Gerald A.....1230 Creal Crescent, Ann Arbor
O'Sullivan, Mrs. John A.....3436 Edgewood, Ann Arbor

Papo, Mrs. Michael.....19377 Sibley Rd., Chelsea
Payne, Mrs. Beverly C...245 Orchard Hill Dr., Ann Arbor
Petrohelos, Mrs. Manos A.....2564 Hawthorne, Ann Arbor
Place, Mrs. Edwin H...2616 Hawthorne Rd., Ann Arbor
Pollard, Mrs. H. Marvin.....2012 Vinewood Ave., Ann Arbor

Rae, Mrs. James W.....2401 Geddes Ave., Ann Arbor
Ratliff, Mrs. Rigdon K.....231 Corrie Rd., Ann Arbor
Rehner, Mrs. Robt. C.....1506 Gleden Ave., Ann Arbor
Reichert, Mrs. Rudolph E., Jr...1046 Baldwin, Ann Arbor
Rekshan, Mrs. Wm. R.....47558 N. Shore Dr., Belleville
Riggs, Mrs. Harold W.....2119 Devonshire, Ann Arbor
Ritter, Mrs. Frank N.....930 Duncan, Ann Arbor
Robins, Mrs. Hugh.....715 W. Madison, Apt. #2, Ann Arbor
Robinson, Mrs. Wm. D.....1616 E. Stadium Blvd., Ann Arbor
Ross, Mrs. C. Howard....180 Underdown Rd., Ann Arbor

Saunders, Mrs. Allen.....1008 Pauline Blvd., Ann Arbor
Sayre, Mrs. Geo. S.....1208 Whittier Rd., Ypsilanti
Schneider, Mrs. Richard C.....1101 Pauline Blvd., Ann Arbor
Schoch, Mrs. Henry K.....670 Hampstead La., Ann Arbor
Schumacher, Mrs. Wm. E.....1475 Stein Rd., Ann Arbor
Scoville, Mrs. Henry A.....1313 W. Cross, Ypsilanti
Seevers, Mrs. Maurice H.....620 Oxford Rd., Ann Arbor
Selzer, Mrs. Melvin L.....1856 Stadium Pl., Ann Arbor
Sheldon, Mrs. John M.....2121 Tuomy Rd., Ann Arbor
Sigler, Mrs. Louis E., Jr...1443 Covington Dr., Ann Arbor
Smillie, Mrs. John W.....2615 Overridge Dr., Ann Arbor
Smith, Mrs. Russell F.....12000 E. Shore Dr., Whitmore Lake
Spears, Mrs. Clarence W.....1307 Pearl St., Ypsilanti
Struthers, Mrs. James N. P.....Ypsilanti State Hospital, Box A, Ypsilanti
Sturgis, Mrs. Cyrus C...1316 Beechwood Dr., Ann Arbor
Sweet, Mrs. Robert.....1304 Iroquois, Ann Arbor

Taylor, Mrs. Wm. B.....2520 Devonshire Rd., Ann Arbor
Teed, Mrs. Wallace.....2300 Melrose Ave., Ann Arbor
Thieme, Mrs. E. Thurston..3 Geddes Heights, Ann Arbor
Thompson, Mrs. Alden S.....2432 Dorchester, Ann Arbor
Tourtellotte, Mrs. Wallace.....2264 Manchester Rd., Ann Arbor
Towsley, Mrs. Harry A.....1000 Berkshire Rd., Ann Arbor
Tupper, Mrs. C. John.....2 Medford Ct., Ann Arbor

Vreede, Mrs. Pieter D.....554 Fourth St., Ann Arbor

Waggoner, Mrs. Ray. W.....3333 Geddes Rd., Ann Arbor
Warren, Mrs. Leon Hugh.....826 S. Main St., Ann Arbor
Weisman, Mrs. Raoul.....1408 Wells, Ann Arbor
Westover, Mrs. Charles J...1405 W. Maple St., Plymouth
Wicht, Mrs. Paul J.....1385 W. Michigan Ave., Ypsilanti
Williams, Mrs. Howard R.....609 Stratford, Ann Arbor
Williamson, Mrs. Fred. B.....922 Pleasant Dr., Ypsilanti
Wilson, Mrs. James L.....1801 Hermitage, Ann Arbor
Winkler, Mrs. James M...2015 Crestland Dr., Ann Arbor
Wolfman, Mrs. Earl F., Jr.....827 Bruce St., Ann Arbor
Woods, Mrs. James J.....2022 Washtenaw Rd., Ypsilanti
Wylie, Mrs. Wm. C.....3219 Broad St., Dexter

Zerbi, Mrs. Victor M.....270 Clubview Dr., Ypsilanti

WAYNE COUNTY

Abbott, Mrs. James.....670 Washington, Grosse Pointe 30
Aben, Mrs. Gerald.....285 Biddle, Wyandotte
Adamian, Mrs. Gerald.....755 Golf Crest Dr., Dearborn
Adams, Mrs. James R.....39 Shadow Hollow, Dearborn
Akroyd, Mrs. Cecil.....1111 Pembroke Rd., Bloomfield Hills
Albrecht, Mrs. Albert J.....17167 Fairfield, Detroit
Albrecht, Mrs. Herman F.....877 Chicago Blvd., Detroit
Alexander, Mrs. Eugene J.....24140 Wilson, Dearborn
Amos, Mrs. T. Grover.....2708 Woodstock Dr., Detroit
Andries, Mrs. George H.....17365 Muirland, Detroit
Arehart, Mrs. Burke W.....65 Merriweather Rd., Grosse Pointe
Arminski, Mrs. Thomas.....16874 Muirland, Detroit
Ashe, Mrs. Stilson R.....1911 Hawthorne Rd., Dearborn
Ashley, Mrs. L. Byron.....18050 Fairway Dr., Detroit
Axelson, Mrs. A. U.....15840 Windmill Pointe Dr., Grosse Pointe

Babcock, Mrs. Warren W.....18254 Oak Dr., Detroit
Bagley, Mrs. Murry E.....7541 Oakman Blvd., Dearborn
Bailey, Mrs. C. C.....32266 Verona Circle, Birmingham
Bailey, Mrs. Louis J.....620 Vinewood, Birmingham
Barbaglia, Mrs. Louis.....730 South Oxford, Grosse Point Woods
Barber, Mrs. Ray.....990 S. Harvey, Plymouth
Barnett, Mrs. Louis L.....8 Millington Rd., Pleasant Ridge
Barone, Mrs. Chas. J.....51 Eason Avenue, Highland Park
Barone, Mrs. C. Gerald.....1851 Crosswick, Birmingham
Barrett, Mrs. C. Dale, Jr.....12672 E. Outer Dr., Detroit
Barrett, Mrs. Wyman D.....442 Neff Rd., Grosse Pointe
Barron, Mrs. James.....2535 Amberly Rd., Birmingham
Bauer, Mrs. Lester E.....4 Woodside Park, Pleasant Ridge
Baumgarten, Mrs. Elden C.....1062 Lochmoor, Grosse Pointe
Beamer, Mrs. Geo. D.....15834 Longmeadow, Dearborn
Bedwell, Mrs. Wm. L...183 Ridgemont Rd., Grosse Pointe
Beouwkes, Mrs. Lambertus E...13014 Mackenzie, Detroit
Bell, Mrs. J. Kenner.....49 Rhode Island, Highland Park
Berlien, Mrs. Ivan C.....2906 E. Jefferson, Detroit
Bielawski, Mrs. John G...8124 E. Morrow Circle, Detroit
Bihl, Mrs. John H.....41001 W. 7 Mile Rd., Northville
Biluk, Mrs. Frank J.....9134 St. Cyril, Detroit
Birch, Mrs. John R.....161 Vendome, Grosse Pointe
Birkhill, Mrs. Fred. Ross..31 Shady Hollow Dr., Dearborn
Blair, Mrs. Wm.....3541 Harvard, Detroit
Block, Mrs. Melvin A.....795 Lakeland, Grosse Pointe
Blodgett, Mrs. Wm. H.....535 Overhill Rd., Birmingham
Bogue, Mrs. Robt. E.....19161 Lancashire, Detroit
Bolstad, Mrs. Donald.....225 S. Silvery Lane, Dearborn
Bolter, Mrs. Sidney.....6760 Woodbank, Birmingham
Bowers, Mrs. Leo J.....47 Cambridge, Pleasant Ridge
Braley, Mrs. Wm. N.....19300 Riverside Dr., Birmingham
Bracken, Mrs. Andrew H.....7540 Oakman, Dearborn
Breiner, Mrs. Sander.....17390 Woodingham, Detroit
Briggs, Mrs. Wm.....1347 Whittier Rd., Grosse Pointe
Brines, Mrs. Osborn A...1415 Parker, Apt. #266, Detroit
Bringard, Mrs. Elmer.....18110 Fairfield, Detroit
Bristol, Mrs. Wm. R...189 Cloverly Rd., Grosse Pointe 36
Broadman, Mrs. Sylvan....25705 Middlebelt, Farmington
Bronson, Mrs. Wm. W.....845 Lone Pine Rd., Bloomfield Hills
Brooks, Mrs. Clark D.....1601 Quarton Rd., Birmingham
Brosius, Mrs. Wm. L.....16150 Sorrento, Detroit
Brown, Mrs. Andrew G.....13991 Asbury Park, Detroit
Brown, Mrs. Audrey O...46 Oakdale Blvd., Pleasant Ridge
Brown, Mrs. Eli M.....13123 LaSalle, Huntington Woods
Brown, Mrs. Gordon T.....8355 E. Outer Dr., Detroit
Brownell, Mrs. Paul.....19379 Pennington Dr., Detroit
Brush, Mrs. Brock E.....22313 Cherry Hill, Dearborn
Bryon, Mrs. John B...30540 Rock Creek Dr., Birmingham
Buerki, Mrs. Robin C.....201 Lake Shore, Grosse Pointe
Buesser, Mrs. Frederick G.....8106 E. Jefferson, Detroit
Burke, Mrs. Ralph Martin.....580 University Pl., Grosse Pointe
Burnham, Mrs. David C...3900 Oakhills Dr., Birmingham
Burns, Mrs. Robert T.....4610 Somerset, Detroit
Burr, Mrs. George.....2016 W. Boston Blvd., Detroit
Burroughs, Mrs. Roswell G.....31624 Auburn Dr., Birmingham
Butler, Mrs. Joseph P.....1726 W. Chicago, Detroit

Caldwell, Mrs. J. R...4850 Bryn Mawr Rd., Birmingham
Campbell, Mrs. Robt. E.....943 Fisher Rd., Grosse Pointe
Candler, Mrs. Clarence L...1690 Faircourt, Grosse Pointe
Capute, Mrs. Joseph M.....22575 Nona, Dearborn
Carbone, Mrs. Louis.....487 Lakeland, Grosse Pointe
Carlisle, Mrs. Joseph.....656 W. Woodland, Ferndale
Carnes, Mrs. Harry E.....652 Lincoln Rd., Grosse Pointe
Carrick, Mrs. Lee.....506 Lakeshore La., Grosse Pointe
Carter, Mrs. John M.....18900 Fairway Dr., Detroit
Carter, Mrs. Leland F...750 Middlesex Rd., Grosse Pointe
Caughey, Mrs. Edgar..1040 S. Oxford Rd., Grosse Pointe
Caumartin, Mrs. Fred.....17184 Wildemere, Detroit
Cetnar, Mrs. Eugene J.....4322 Bishop Rd., Detroit
Chall, Mrs. Henry G.....2941 W. McNichols, Detroit
Chapin, Mrs. Sidney E.....425 Golf Crest Dr., Dearborn
Chipman, Mrs. Williard A...14613 Rutland Rd., Detroit
Christensen, Mrs. C. A.....7876 Hartwell Ave., Dearborn
Christopher, Mrs. James G...9515 W. Outer Dr., Detroit
Clark, Mrs. Arthur M.....318 Beechmont, Dearborn
Clarke, Mrs. Robert B...385 University Pl., Grosse Pointe
Clifford, T. Percy.....4355 Glendale, Detroit
Cochrane, Mrs. Edgar G.....13974 Archdale Rd., Detroit
Cole, Mrs. James E.....15322 Stahelin, Detroit
Colville, Mrs. James.....1836 Humphrey, Birmingham
Colvin, Mrs. Leslie T.....15015 Glastonbury, Detroit
Colyer, Mrs. Raymond.....284 Pilgrim Rd., Birmingham
Comly, Mrs. Hunter.....958 Lakepointe, Grosse Pointe
Connelly, Mrs. Richard C.....1360 Three Mile Dr., Grosse Pointe
Connolly, Mrs. Paul J.....16778 Westmoreland, Detroit
Cook, Mrs. James C.....5 Fairmont Court, Dearborn
Cooper, Mrs. Benjamin F...1124 Berkshire, Grosse Pointe
Cooper, Mrs. Edmond L.....914 Shirley, Birmingham
Cooper, Mrs. Ralph.....850 Lakeland, Grosse Pointe
Cooper, Mrs. Richard F.....23130 Wilson, Dearborn
Corbett, Mrs. J. J.....57 Merriweather Rd., Grosse Pointe
Costello, Mrs. Russell T.....2850 Pine Lake Rd., Orchard Lake
Courtney, Mrs. Rufus.....30038 Manover Blvd., Inkster
Courville, Mrs. Chas. J.....19719 Whitcomb, Detroit
Coyle, Mrs. James.....46 Beacon Hill, Grosse Pointe
Croll, Mrs. Maurice.....18003 Muirland, Detroit
Crook, Mrs. Charles L.....60 Colorado, Highland Park
Croushore, Mrs. James E.....1185 Westward, Birmingham
Cusick, Mrs. Paul L.....17575 Oak Dr., Detroit

Dale, Mrs. Mark.....4595 Pickering, Birmingham
Danforth, Mrs. Robt. D.....941 S. Oxford, Grosse Pointe
Darling, Mrs. Chas. E.....292 Yarmouth, Bloomfield Twp.
Darling, Mrs. Milton A.....8100 LaSalle Blvd., Detroit
Davies, Mrs. Windsor.....1013 Audubon, Grosse Pointe
DeNike, Mrs. A. James.....2906 E. Jefferson, Detroit
Deress, Mrs. Alphonse R.....4204 E. Outer Dr., Detroit
Derrick, Mrs. Cornelius.....7300 Harding, Tayler
DeSpelder, Mrs. R. E.....1452 Yorkshire, Grosse Pointe 30
Devine, Mrs. Herbert W.....1315 Harvard, Grosse Pointe
Dickman, Mrs. Fred C.....18654 Rainbow Dr., Lathrup Village
Dill, Mrs. J. Lewis.....18615 Birchcrest, Detroit
Dimond, Mrs. George E.....6853 Orchard, Dearborn
Ditzler, Mrs. John.....581 Rivard Blvd., Grosse Pointe
Doering, Mrs. Wendell R.....27489 Lathrup, Lathrup Village
Dolega, Mrs. Stanley F.....366 Moross, Grosse Pointe
Dolgoff, Mrs. Sidney.....9855 Melbourne, Allen Park
Domzalski, Mrs. Henry.....978 Balfour, Grosse Pointe
Donald, Mrs. Douglas.....8120 E. Jefferson, Detroit 14
Dorsey, Mrs. John M.....65 Moss, Highland Park
Doub, Mrs. Howard P.....18234 Wildemere, Detroit

Downer, Mrs. Ira G...789 Trombly Rd., Grosse Pointe 30
Draves, Mrs. Edward F.....14541 Grandmont, Detroit
Drazek, Mrs. Joseph.....19633 Riverview, Detroit
Dubin, Mrs. Joseph J.....1420 Strathcona, Detroit
DuBois, Mrs. Paul W.....630 Merrick Ave., Detroit
Dudek, Mrs. John J.....17166 Parkside, Detroit
Dumke, Mrs. Paul R.....544 Middlesex Blvd., Grosse Pointe
Dundas, Mrs. Edward.....1235 Beechmont, Dearborn
Dunlap, Mrs. Henry A.....505 Lakepointe, Grosse Pointe
Dunn, Mrs. Cornelius E.....3496 Burns, Detroit
Dupler, Mrs. Gerald.....1126 Mayburn, Dearborn
Durham, Mrs. Everett W.....1730 Hawthorne Dr., Dearborn
Dutcher, Mrs. Dwight.....711 S. Oxford, Grosse Pointe
Duwe, Mrs. Frank A.....17580 Avilla, Lathrup Village
Dyer, Mrs. H. Lorne.....20133 Valley Rd., Northville
Dziuba, Mrs. John F.....622 Hamilton, Birmingham

Edmondson, Mrs. Robt.....422 Maison, Grosse Pointe 36
Eisenbrey, Mrs. Arthur.....1386 Bishop Rd., Grosse Pointe 30
Eldredge, Mrs. Edw. F.....310 Moross, Grosse Pointe
Ensign, Mrs. Dwight C.....32945 Franklin Ct., Franklin
Eschbach, Mrs. Joseph W.....410 River Lane, Dearborn
Evans, Mrs. Gomer.....1060 Berkshire, Grosse Pointe
Evans, Mrs. Joseph M.....12862 E. Outer Dr., Detroit
Ewing, Mrs. C. H.....526 University Pl., Grosse Pointe
Eyler, Mrs. William.....18347 Bedford Rd., Birmingham

Fallis, Mrs. Lawrence S.....2474 Chicago Blvd., Detroit
Farnam, Mrs. Larry M., Jr.....16775 St. Paul, Grosse Pointe 30
Fea, Mrs. John.....18663 Woodworth, Detroit 40
Feleyn, Mrs. W. G.....2091 W. Grand Blvd., Detroit
Fellers, Mrs. Ray L.....4984 Ridgewood, Detroit
Fenton, Mrs. Edwin.....14831 Warwick Rd., Detroit
Fenton, Mrs. Russell F.....18469 Hillcrest Blvd., Birmingham
Ferrara, Mrs. Richard.....3990 Somerset, Detroit
Ferris, Mrs. George.....16745 Oakfield, Detroit
Font, Mrs. Anthony J.....Pavilion Apts. #2103, Lafayette Park, Detroit
Figiel, Mrs. Leo.....719 Berkshire, Grosse Pointe
Figiel, Mrs. Steven J.....6648 Oakman Blvd., Dearborn
Fisher, Mrs. C. L.....791 University Pl., Grosse Pointe
Fitzgerald, Mrs. James M.....16838 Huntington, Detroit
Flaherty, Mrs. Henry J.....27360 Rainbow Circle, Lathrup Village
Flaherty, Mrs. Norman W.....24315 Fairmount Dr., Dearborn
Fleming, Mrs. Joseph.....7360 LaSalle Blvd., Detroit 6
Ford, Mrs. George A.....18934 Fairfield, Detroit
Fordell, Mrs. Frank.....411 Woodcrest Dr., Dearborn
Fosnaugh, Mrs. Robert P.....6214 Appoline, Dearborn
Foster, Mrs. Wm. L.....343 N. Harrison Rd., East Lansing
Frame, Mrs. Roy.....1051 Covington, Detroit
France, Mrs. C. Jackson.....838 Berkshire, Grosse Pointe
Franjac, Mrs. Marion.....37355 W. 8 Mile Rd., Livonia
Frederickson, Mrs. George C.....1450 Oxford Road, Grosse Pointe
Freitas, Mrs. Eugene L.....77 Lochmoor, Grosse Pointe
Frey, Mrs. James L.....17144 Westmoreland, Detroit
Frost, Mrs. Harold.....2471 Lothrop, Detroit 6
Fryfogle, Mrs. James D.....24500 Inkster, Southfield

Gagliardi, Mrs. Raymond.....15864 Rosemont, Detroit
Gajewski, Mrs. John E.....1320 Grayton, Grosse Pointe
Ganschow, Mrs. John H.....10025 Nadine, Huntington Woods
Gardner, Mrs. Lawrence W.....18782 Glenwood, Lathrup Village
Gardner, Mrs. Max L.....1158 Yorkshire, Grosse Pointe
Gaston, Mrs. Herbert B.....7501 W. Morrow Circle Dearborn
Gehring, Mrs. Harold W.....17607 Magnolia Parkway, Detroit
Gerbasi, Mrs. Francis.....81 Lochmoor, Grosse Pointe 36
Gerisch, Mrs. Robert.....19441 Bretton Drive, Detroit
Gerondale, Mrs. E. J.....15000 Dexter Blvd., Detroit
Gillespie, Mrs. Stephen M.....1638 DaCosta, Dearborn
Gray, Mrs. Jacques P.....8900 E. Jefferson, Apt. #913, Detroit
Greenlee, Mrs. William T.....764 Pemberton, Grosse Pointe
Griffin, Mrs. Robert J.....965 W. Crescent Lane, Grosse Pointe
Gittins, Mrs. Perry.....20210 Renfrew Road, Detroit
Glowacki, Mrs. Ben F.....840 Jonathan Lane, Bloomfield Hills
Goodwin, Mrs. Warren.....19321 Greydale, Detroit
Gordon, Mrs. J. Whitlock.....12700 Mendota, Detroit
Gottlieb, Mrs. Jacques S.....7111 Fairhill Road, Birmingham
Goux, Mrs. Raymond S.....18566 Muirland, Detroit
Grace, Mrs. Joseph M.....27453 Rainbow Circle, Lathrup Village
Granger, Mrs. George R.....88 Renaud Road, Grosse Pointe
Graves, Mrs. James H.....1304 Buckingham, Grosse Pointe
Green, Mrs. Edward W.....30024 Champine Drive, St. Clair Shores
Green, Mrs. Nelson W.....107 Elm Park, Pleasant Ridge
Greifenstein, Mrs. Ferdinand.....1033 Yorkshire, Grosse Pointe
Greiner, Mrs. Bert.....8900 E. Jefferson, Detroit
Grossman, Mrs. Sol C.....20015 Shrewsbury, Detroit
Guerrere, Mrs. Jose.....4285 Glendale, Detroit
Gurdjian, Mrs. E. S.....19385 Renfrew Rd., Detroit
Guyton, Mrs. Jack S.....402 University, Grosse Pointe

Haidostian, Mrs. Benj. H.....17421 Westmoreland Rd., Detroit
Haisten, Mrs. Wyatt.....269 McKinley, Detroit
Haitinger, Mrs. Kalman S.....1134 Beaconsfield, Grosse Pointe
Hall, Mrs. E. Walter.....14189 Rosemont, Detroit
Hall, Mrs. Winthrop D.....6 Cherry Hill Court, Detroit
Hallen, Mrs. L. James.....18205 Parkside, Detroit 21
Hamil, Mrs. Brenton M.....12 Adams Lane, Dearborn
Hamilton, Mrs. Quentin P.....19050 Dolores, Lathrup Village
Hammer, Mrs. Roy W.....17340 Runyon, Detroit
Hand, Mrs. Fordus.....1018 Bedford, Grosse Pointe
Hansen, Mrs. Frederick E.....772 Cever Drive, Port Austin
Harley, Mrs. Louis M.....17325 Fairfield, Detroit
Harm, Mrs. Winfred B.....16260 Cherrylawn, Detroit
Harris, Mrs. Harold M.....7350 Oakman, Dearborn
Hartman, Mrs. Frank W.....7661 LaSalle Garden, Detroit
Hasley, Mrs. Clyde K.....2320 N. LaSalle Garden, Detroit
Hastings, Mrs. Orville J.....10427 E. Outer Drive, Detroit
Havers, Mrs. Howard.....271 Kenwood Court Grosse Pointe
Haurbrich, Mrs. Wm. S.....270 S. York Rd., Dearborn
Hauser, Mrs. I. Jerome....1980 Strathcona Drive, Detroit
Hauser, Mrs. John E.....688 Hamilton, Birmingham
Hazen, Mrs. Roy S.....15371 Stout, Detroit
Hedgeman, Mrs. E. Chester.....2325 W. Chicago Blvd., Detroit
Heidman, Mrs. Louis E.....18010 Roselawn, Detroit
Heldt, Mrs. Richard.....24617 Rockford, Dearborn
Henderson, Mrs. Leslie T.....832 N. Renaud, Grosse Pointe
Henry Mrs. Robert C.....16127 Baylis, Detroit
Hess, Mrs. Murray W.....23860 Seneca, Oak Park
Heyner, Mrs. S. A.....3424 Oakman Blvd., Detroit
Hickey, Mrs. Joseph.....24346 Fairmont Drive, Dearborn
Hicks, Mrs. Frederick G.....1000 Westwood, Birmingham
Hipps, Mrs. Chauncey.....14 Ridge Road, Pleasant Ridge
Hoagland, Mrs. Thomas V.....630 W. Hildale, Detroit
Hodges, Mrs. Frank J.....7407 Oakman Blvd., Dearborn
Hodges, Mrs. Jason.....1200 S. Oxford Road, Grosse Pointe
Hodgkinson, Mrs. C. Paul.....17546 Meadowwood, Lathrup Village
Holloway, Mrs. Horace....2017 W. Boston Blvd., Detroit
Holt, Mrs. Charles J., Jr.....1575 Faircourt, Grosse Pointe
Horn, Mrs. Robert C., Jr.....505 Pemberton Road, Grosse Pointe

Horrigan, Mrs. Audrey E.....20029 Cooley, Detroit
Howard, Mrs. Austin Z.....15492 Ashton Road, Detroit
Howell, Mrs. James T.....27907 California Dr. E., Lathrup
Howes, Mrs. Homer A.....9322 Artesian, Detroit
Howlett, Mrs. Howard T.....20026 Shrewsbury, Detroit
H'Romadke, Mrs. Louis.....340 Martel Drive, Bloomfield Hills
Huber, Mrs. Philip.....1724 Bassett, Royal Oak
Hudson, Mrs. William A.....2290 Edison, Detroit
Hulick, Mrs. Archie.....15525 Amherst, Birmingham
Hume, Mrs. H. Ross....118 Meadow Lane, Grosse Pointe
Huminski, Mrs. T. S.....1232 Devonshire, Grosse Pointe
Hummel, Mrs. Arthur R.....1020 Three Mile Drive, Grosse Pointe
Hunt, Mrs. Theodore H.....10095 E. Outer Drive, Detroit
Husband, Mrs. Charles W.....19450 Argyle Crescent, Detroit
Husband, Mrs. Raymond C.....530 Overhill Road, Birmingham

Iacobell, Mrs. Peter H...870 Lakeshore Rd., Grosse Pointe
Igna, Mrs. Eli J.....584 Lakeland, Grosse Pointe
Insley, Mrs. Stanley W.....12860 Archdale, Detroit
Irwin, Mrs. William A.....2130 Iroquois, Detroit

Jaekel, Mrs. C. N.....443 Lexington, Grosse Pointe
Jaffar, Mrs. Donald J.....630 Merrick, Detroit
Jarvis, Mrs. Harold F.....360 Moross Road, Grosse Pointe Farms
Jeffries, Mrs. Benjamin.....1010 Harvard, Grosse Pointe
Jend, Mrs. William, Jr.....7027 Riverside Drive, Dearborn
Jennings, Mrs. Charles G.....356 Hillcrest, Grosse Pointe
Jensen, Mrs. V. W.....532 Lincoln, Grosse Pointe
Jodar, Mrs. Loyal W.....21741 Edmunton, St. Clair Shores
John, Mrs. Hubert R.....265 Merton Road, Apt. 104, Detroit
Johnson, Mrs. David.....539 Vinewood, Birmingham
Johnson, Mrs. Ralph.....2115 Iroquois, Detroit
Johnson, Mrs. Vincent C.....599 Lakeshore Road, Grosse Pointe
Johnson, Mrs. William E.....2240 W. Grand Blvd., Detroit
Joinville, Mrs. E. V.....3879 Riverside Drive, Windsor, Ontario
Jones, Mrs. Roy D.....7747 Seven Mile Road, Detroit
Joyce, Mrs. Stanley J.....2040 W. McNichols Road, Detroit

Kackley, Mrs. James.....1434 Bishop, Grosse Pointe
Kamil, Mrs. Richard.....18024 Warrington, Detroit
Kauppinen, Mrs. J. A.....19246 Nadol, Detroit
Kawel, Mrs. Conrad....7377 Charlesworth Rd., Dearborn
Keane, Mrs. William Edward.....1007 Harvard Road, Grosse Pointe
Kehee, Mrs. Henry J.....91 Renaud Road, Grosse Pointe
Keim, Mrs. Harther.....369 University Pl., Grosse Pointe
Kelley, Mrs. Frank J.....440 Lathrop Road, Grosse Pointe
Kennary, Mrs. James M.....2250 Iroquois, Detroit
Killins, Mrs. Charles G.....845 Bedford Rd., Grosse Pointe
Knighton, Mrs. Robert S.....27486 Lathrup, Lathrup Village
Koebel, Mrs. R. H.....640 Bedford, Grosse Pointe
Kokowicz, Mrs. R. J.....1151 Buckingham, Grosse Pointe
Kerum, Mrs. Lyle.....210 Lothrop Road, Grosse Pointe Farms
Kossayda, Mrs. Adam W.....22300 Wilson, Dearborn
Krabbenhoft, Mrs. Kenneth L.....27 Oakdale, Pleasant Ridge
Krynicki, Mrs. Francis X.....17127 Muirland, Detroit
Krystal, Mrs. Henry.....19210 Coyle, Detroit
Kuhn, Mrs. Albert.....186 W. Hildale, Detroit
Kujawski, Mrs. Walter..20897 Littlestone, Harper Woods
Kulaski, Mrs. Chester H.....934 Westchester, Grosse Pointe

LaHood, Mrs. Michael J.....17300 Cornell, Detroit
Laige, Mrs. Raymond.....1257 Audubon, Grosse Pointe
LaMarche, Mrs. Norman O.....4139 Wakefield Road, St. Johns Woods, Berkley
Lammy, Mrs. James V.....3797 Wakefield, Berkley
Lampman, Mrs. Harold H.....42 Puritan Avenue, Highland Park
Lang, Mrs. Ernest F.....280 Cloverly Road, Grosse Pointe
Lange, Mrs. Anthony H.....6017 Grayton Road, Detroit
Laning, Mrs. George M.....2025 W. Six Mile Road Highland Park
Leader, Mrs. Luther R.....394 Cranbrook Road, Bloomfield Hills
Lechner, Mrs. Monroe.....14284 Rosemary, Detroit
Leibinger, Mrs. Henry R.....511 Barrington Road, Grosse Pointe
Lepley, Mrs. Fred O.....1125 Three Mile Drive, Grosse Pointe
Leszynski, Mrs. Joseph S.....8120 E. Jefferson, Detroit
Levagood, Mrs. Floyd B.....14056 Artesian, Detroit
Liddicoat, Mrs. Arthur G.....18300 Bretton Drive, Detroit
Lightbody, Mrs. James J.....195 Piper Blvd., Detroit
Lignell, Mrs. Rudolph W.....18109 San Juan, Detroit
Lilly, Mrs. Charles J.....16649 Princeton, Detroit
Lindner, Mrs. David.....6429 Calhoun, Dearborn
Lipkin, Mrs. Ezra.....17599 Greenlawn, Detroit
Livingood, Mrs. Clarence S.....2950 Iroquois, Detroit
Lefstrom, Mrs. James E.....265 Williams, Grosse Pointe
Longe, Mrs. Salvatore S.....370 Moross Rd., Grosse Pointe Farms 36
Loucks, Mrs. R. E.....29915 Thirteen Mile Road, Farmington
Lovas, Mrs. William S.....10 Hampton Court, Dearborn
Lowe, Mrs. Adolf W.....17117 Parkside, Detroit
Lutz, Mrs. Earl F.....6178 Lantern Lane, Foxcroft, Birmingham
Lynn, Mrs. Harvey D.....18285 Birchrest Drive, Detroit
MacGregor, Mrs. W. Wilbur....6320 W. Surrey, Foxcroft, Birmingham
Mackersie, Mrs. William G.....18205 Roselawn, Detroit
Maczewski, Mrs. John E.....1357 Sunningdale, Grosse Pointe
Mainwaring, Mrs. Rosser L.....1910 Russell Avenue, Dearborn
Malone, Mrs. John M.....20446 Freeland, Detroit
Maloney, Mrs. John A.....22635 W. 10½ Mile, Rte. 3, Box 11, Birmingham
Mapletoft, Mrs. Kenneth E.....420 Mohawk, Dearborn
Marks, Mrs. Bert W.....8250 Lincoln, Huntington Woods
Marsh, Mrs. Alton R.....15696 Woodlawn Ave., Dearborn
Martmer, Mrs. Edgar E.....693 Washington Rd., Grosse Pointe
May, Mrs. Frederick T.....28580 Eldorado, Lathrup Village
McAlonan, Mrs. William T.....630 Merrick, Detroit
McCadie, Mrs. James H.....14241 Artesian, Detroit
McCellan, Mrs. Robert J.....14377 Rutland, Detroit
McColl, Mrs. Clarke M.....19701 Chesterfield, Detroit
McCormick, Mrs. Colin C.....24352 Rockford Drive, Dearborn
McCormick, Mrs. Frank T.....859 Longfellow, Detroit
McDonald, Mrs. Angus L.....81 Meadow Lane, Grosse Pointe
McDonald, Mrs. John.....5671 Shadow Lane, Bloomfield Hills
McDonald, Mrs. William G.....26 Danvers Lane, Dearborn
McEvitt, Mrs. Wm. G.....1140 W. Boston Blvd., Detroit
McGraw, Mrs. Arthur B.....70 Kenwood Rd., Grosse Pointe
McIntosh, Mrs. Robert D.....6529 Burnly, Garden City
McIntyre, Mrs. William B.....1233 Audubon Road, Grosse Pointe
McKeever, Mrs. George E.....1767 Culver, Dearborn
McKnight, Mrs. Robert.....17364 Muirland, Detroit
McRae, Mrs. Donald H.....259 W. Grand Blvd., Detroit
Menagh, Mrs. Frank R.....4010 Columbus, Detroit
Meek, Mrs. Stuart F.....13020 Kilbourne, Detroit
Merrill, Mrs. William O.....785 W. Long Lake Rd., Bloomfield Hills
Metes, Mrs. John S.....1261 Fairholme Rd., Grosse Pointe
Michael, Mrs. Michael J.....938 S. Renaud Rd., Grosse Pointe

Mitchell, Mrs. C. Leslie.....34 Hendrie Lane, Grosse Pointe
Molnar, Mrs. Stephen K.....434 S. Highland, Dearborn
Molner, Mrs. Joseph G.....14890 Glastonbury, Detroit
Monson, Mrs. Robert C.....1070 N. Renaud, Grosse Pointe
Monto, Mrs. Raymond W.....27879 Lathrup, Lathrup Village
Morley, Mrs. Harold V.....200 Hampshire Ct., Dearborn
Morita, Mrs. Yoshikazu.....131 Wendelton Road, Troy
Moroun, Mrs. S. J.....203 Lakeland, Grosse Pointe
Moseley, Mrs. Frederick L.....9152 LaSalle Blvd., Detroit
Moses, Mrs. John W.....31230 Ramble, Franklin Village
Mossman, Mrs. John D.....18914 Warrington, Detroit
Munson, Mrs. Henry.....466 Rivard, Grosse Pointe
Murray, Mrs. Gordon.....680 Neff Road, Grosse Pointe
Myers, Mrs. Dan W.....1150 Bedford Road, Grosse Pointe

Nahigian, Mrs. Russel.....17371 Annchester, Detroit
Nehra, Mrs. John M.....662 Renaud Rd., Grosse Pointe
Newby, Mrs. Burns G.....11963 Wisconsin, Detroit
Nickel, Mrs. Warren.....21935 Wildwood, Dearborn
Nigro, Mrs. Norman.....1130 Lockmoor, Grosse Pointe
Norton, Mrs. A. B.....18615 Muirland, Detroit
Neshay, Mrs. William C.....2672 W. Long Lake Rd., R. #2, Orchard Lake
Novy, Mrs. Robert L.....2910 Iroquois, Detroit

O'Brien, Mrs. Edward.....19185 Strathcona Dr., Detroit
O'Hare, Mrs. William.....24616 Winona, Dearborn
Ohmart, Mrs. Galen B.....2150 Iroquois, Detroit
Olmsted, Mrs. George S.....3535 Burning Brush Rd., Birmingham
Olson, Mrs. James A.....19 Norwich Rd., Pleasant Ridge
Otlewski, Mrs. Eugene A.....27491 Goldengate, Lathrup Village
Owen, Mrs. Clarence I.....1544 Vinewood, Detroit

Parrish, Mrs. Rufus.....16170 LaSalle Blvd., Detroit
Parson, Mrs. John P.....808 Grand Marais, Grosse Pointe
Pasternacki, Mrs. Norbert T.....7730 E. Jefferson, Detroit
Payne, Mrs. Walter A.....357 Hillcrest, Grosse Pointe
Paysner, Mrs. Harry....3223 N. Adams Rd., Birmingham
Pearlman, Mrs. Jack.....25860 Concord, Huntington Woods
Pedersen, Mrs. Herbert E.....381 Golfcrest Drive, Dearborn
Pendy, Mrs. George V.....20170 Renfrew, Detroit
Pendy, Mrs. John M.....896 Lochmoor, Grosse Pointe
Perkin, Mrs. Frank S.....325 Lakeland, Grosse Pointe
Peterman, Mrs. Earl A.....19515 Cumberland Way, Detroit
Petty, Mrs. Thomas A.....1204 Yorkshire Road, Grosse Pointe
Picard, Mrs. Joseph.....501 Woodcrest, Dearborn
Pickard, Mrs. O. W.....20208 Lichfield, Detroit
Pietra, Mrs. Alex W.....1176 Bishop Road, Grosse Pointe
Polentz, Mrs. Charles P.....13450 Irvine, Oak Park
Pollard, Mrs. Richard.....22074 Schroeder, East Detroit
Poretta, Mrs. F. S.....8156 Normile, Detroit
Porter, Mrs. Frederick G.....19756 Lesure, Detroit 35
Posch, Mrs. Joseph L.....853 N. Brys Drive, Grosse Pointe
Potter, Mrs. L. S.....287 Merriweather, Grosse Pointe
Pratt, Mrs. Jean P.....18910 Fairway Dr., Detroit
Priborsky, Mrs. Benjamin H.....3005 Iroquois, Detroit
Price, Mrs. Hazen.....18605 Birchcrest, Detroit
Priest, Mrs. Robert J.....9312 Faust, Detroit
Prince, Mrs. Addison.....16150 Bayliss, Detroit
Procaile, Mrs. A. B.....1940 N. Russell, Dearborn
Purcell, Mrs. Frank H.....869 Edgemont Park, Grosse Pointe

Quigley, Mrs. William.....16540 Warwick, Detroit
Quinn, Mrs. Edward L.....1141 Golfview, Birmingham

Rabe, Mrs. Robert.....19711 Littlefield, Detroiit
Ramsey, Mrs. Robert H.....310 River Lane, Dearborn
Rebuck, Mrs. John W.....16955 Beverly Road, Birmingham
Redding, Mrs. Lowell....530 Meadowlane Road, Dearborn
Redfern, Mrs. Earl W.....17392 Kirkshire, Birmingham
Reed, Mrs. H. Walter..18160 Wiltshire, Lathrup Village
Reed, Mrs. Joseph O., Jr.....448 Lincoln, Grosse Pointe
Reid, Mrs. Wesley G.....17556 Parkside, Detroit
Reisig, Mrs. Robert.....874 Lakeland Ct., Grosse Pointe
Rennell, Mrs. Lee P.....18222 Fairfield, Detroit
Reno, Mrs. George.....18060 Rutherford, Detroit
Reveno, Mrs. William S.....19398 Stratford Rd., Detroit
Reyner, Mrs. Clarence E.....19999 Stratford Rd., Detroit
Reynolds, Mrs. R. P.....17521 Hamilton Dr., Detroit
Rhoades, Mrs. Francis P.....272 Ashland, Detroit
Rice, Mrs. Harold B.....304 Briarcliff, Detroit
Riethmiller, Mrs. Robert.....300 Lenox, Detroit
Rinaldo, Mrs. Joseph A.....4335 Leslie, Detroit
Ritter, Mrs. George.....28420 Sunset Drive, Lathrup Village
Robb, Mrs. J. Milton.....315 Lakeland, Grosse Pointe
Robinson, Mrs. Howard.....18978 Rutherford, Detroit
Roeglin, Mrs. Orville F.....4386 Balfour, Detroit
Roman, Mrs. Stanley J.....25531 Avondale, Inkster
Ronayne, Mrs. John J.....14042 Rutland, Detroit
Rosenzweig, Mrs. Saul.....2542 W. Boston Blvd., Detroit
Ross, Mrs. Donald G.....782 Cadieux Rd., Grosse Pointe
Rowe, Mrs. Joseph.....401 N. Brady Road, Dearborn
Royer, Mrs. Richard R.....709 Westchester, Grosse Pointe
Ruedemann, Mrs. Albert D.....1018 Three Mile Drive, Grosse Pointe
Ruedemann, Mrs. Albert D., Jr.....242 Lewiston Rd., Grosse Pointe
Runge, Mrs. E. F.....25549 Rouge River, Dearborn
Rupp, Mrs. Jacob Roth....51 Holbrook, Apt. 208, Detroit

Sadler, Mrs. H. Harrison, Jr.....594 Rivard, Grosse Pointe
Sadzikowski, Mrs. Joseph T.....1320 N. Denwood, Dearborn
Sage, Mrs. Bernard A.....210 Woodcrest Drive, Dearborn
Sage, Mrs. Thomas.....936 Trombley, Grosse Pointe
Salchow, Mrs. Paul T.....8285 Hartwell, Detroit
Sapala, Mrs. M. Andrew....13021 Mackenzie Ave., Detroit
Sawyer, Mrs. Harold F.....8900 E. Jefferson, Apt. 718, Detroit
Scarney, Mrs. Herman D.....5400 Pontiac Trail, R. #5, Pontiac
Schaefer, Mrs. Heinrich.....1130 Parker, Detroit
Schneck, Mrs. Robert J.....285 Voltar, Grosse Pointe
Schakne, Mrs. Norman R.....18411 Strathmoor, Detroit
Schmidt, Mrs. Werner F.....411 Roland Court, Grosse Pointe
Schuknecht, Mrs. Harold.....558 Washington Road, Grosse Pointe
Schulte, Mrs. Carl H.....20171 Renfrew, Detroit
Schwartz, Mrs. Oscar.....19538 Roslyn, Detroit
Schweigert, Mrs. C. F.....12185 E. Outer Drive, Detroit
Self, Mrs. William G.....1067 Berkshire, Grosse Pointe
Sellers, Mrs. Charles W.....2051 Chicago Blvd., Detroit
Sherman, Mrs. William L.....201 E. Kirby, Detroit
Shors, Mrs. Clayton M.....19950 Norton Ct., Grosse Pointe
Shifrin, Mrs. Peter G.....2005 Oakman Blvd., Detroit
Shreve, Mrs. Alfred J.....7 Amherst Lane, Dearborn
Shulman, Mrs. Herschel.....19350 Appoline, Detroit
Shumaker, Mrs. Edward J.....17606 Wildemere, Detroit
Sieber, Mrs. E. H.....5 Byfield Lane, Dearborn
Siefert, Mrs. William A.....15920 Glastonbury Road, Detroit
Sieracki, Mrs. Joseph C.....7407 Byron, Detroit
Sigler, Mrs. John W.....1356 Greenlawn, Birmingham
Sillery, Mrs. Robert J.....857 Grosse Pointe Ct., Grosse Pointe
Sinclair, Mrs. James W.....464 Lexington, Grosse Pointe Farms
Singer, Mrs. Floyd W.....24441 Emerson, Dearborn
Sippola, Mrs. George W.....13603 LaSalle Blvd., Detroit
Sklar, Mrs. Manuel.....18611 Marlowe, Detroit
Slaugenhaupt, Mrs. Jesse G.....16887 Lawton, Detroit
Slevin, Mrs. John G., Jr.....1132 Whittier Rd., Grosse Pointe
Smathers, Mrs. Homer.....14669 Longacre, Detroit
Smith, Mrs. F. Janney.....1050 Yorkshire, Grosse Pointe
Smith, Mrs. Henry L.....19361 Strathcona, Detroit

Smolenski, Mrs. John.....18500 Scarsdale, Detroit
Sonda, Mrs. L. Paul.....8625 Marygrove, Detroit
Spalding, Mrs. Edward D.....75 S. Edgewood Drive, Grosse Pointe Shores
Stapleton, Mrs. William J.....201 E. Kirby, Apt. 104, Detroit
Staricco, Mrs. Ronato....22963 Allen Rd., St. Clair Shores
Staryk, Mrs. Steven E.....1010 N. Oxford, Grosse Pointe
Stearns, Mrs. A. B.....39 Hampton, Grosse Pointe
Stebbins, Mrs. Charles E.....27645 Morningside, Lathrup Village
Stefani, Mrs. Ernest L.....18600 Birchcrest Drive, Detroit
Steiner, Mrs. Daniel.....3690 Walbri, Birmingham
Stellhorn, Mrs. C. E.....16589 Warwick, Detroit
Stiefel, Mrs. Daniel M.....20094 Canterbury, Detroit
Stockwell, Mrs. Benjamin W.....192 Lothrop Road, Grosse Pointe
Stokfisz, Mrs. Thaddeus....7025 Oakman Blvd., Dearborn
Straith, Mrs. Claire L.....19490 Parkside Rd., Detroit
Straith, Mrs. Richard E.....117 Elm Park, Pleasant Ridge
Strand, Mrs. Martin E.....451 Golf Crest, Dearborn
Stronski, Mrs. Gerald.....18090 Gruebner, Detroit
Sugar, Mrs. David I.....13120 Broadstreet, Detroit
Swanson, Mrs. Robert G.....160 Beaupre, Grosse Pointe
Swartz, Mrs. Fred.....1137 Balfour Rd., Grosse Pointe
Swift, Mrs. Karl L.....38285 W. 12 Mile Road, Farmington

Tallant, Mrs. Edward J.....19324 Westmoreland Road Detroit
Taylor, Mrs. Ivan B.....1421 Anita, Grosse Pointe
Taylor, Mrs. William V.....324 Moross Road, Grosse Pointe
Thompson, Mrs. Hugh.....2559 Bradway Blvd., Birmingham
Thumann, Mrs. Robert.....666 Washington Road, Grosse Pointe
Timma, Mrs. Richard.....18740 Roseland, Lathrup Village
Tobin, Mrs. John S.....23056 Hayden Road, Farmington
Todoroff, Mrs. Theodore G.....22740 Hollander, Dearborn
Townsend, Mrs. Frank M.....15231 Windmill Pointe Dr., Grosse Pointe
Tracey, Mrs. John W.....15828 Morningside Plaza Lathrup Village
Tregenza, Mrs. William K.....295 N. Hunter, Birmingham
Tremain, Mrs. Harold L.....15475 Ashton Road, Detroit
Turcotte, Mrs. Vincent J.....545 Lakeland, Grosse Pointe
Turnbull, Mrs. Jack.....6290 Burger Road, Dearborn
Turner, Mrs. John.....9078 Mineek, Detroit

Ulmer, Mrs. Arthur.....1989 Broadstone, Grosse Pointe
Unkefer, Mrs. William.....17216 Plainview, Detroit
Usndek, Mrs. Harold....19700 Sunnyside, St. Clair Shores

VanRasphorst, Mrs. Leonard F.....331 River Lane, Dearborn
Velat, Mrs. Clarence.....16100 Bentler, Detroit
Vergosen, Mrs. Harry E., Jr.....8580 Sorrente, Detroit
Vonder Heide, Mrs. Elmore C.....17190 Strathmoor, Detroit
Vorwald, Mrs. Arthur J.....P.O. Box #5235, Grosse Pointe Farms 36
Vossler, Mrs. Albert E.....222 Moran Road, Grosse Pointe

Waggoner, Mrs. Lyle..15828 Lakeview Ct., Grosse Pointe
Wainstock, Mrs. Michael A.....18925 Wildemere, Detroit
Walker, Mrs. Roger V.....1415 Parker, Apt. 1066, Detroit
Walker, Mrs. Roger V., Jr.....1370 Harvard, Grosse Pointe
Waller, Mrs. John.....31151 Grandon, Livonia
Walser, Mrs. Howard C.....1300 Northlawn, Birmingham
Walter, Mrs. Floyd J.....15464 Ferguson, Detroit
Watson, Mrs. Douglas J.....28425 Woodworth Way, Lathrup Village
Watson, Mrs. J. Edwin.....1401 Pembroke Drive, Bloomfield Hills
Watts, Mrs. Joseph.....17146 Muirland, Detroit
Weaver, Mrs. Clarence E.....1260 S.E. Fourth Ct., Deerfield
Weed, Mrs. Milton R.....1997 E. Grand Blvd., Detroit
Weiser, Mrs. Frank A.....235 Charlevoix, Grosse Pointe
Weiss, Mrs. Cassimir.....1801 E. Canfield, Detroit
Wendell, Mrs. J. S.....17310 Wildemere, Detroit
West, Mrs. Malcolm.....16148 Baylis, Detroit
Weston, Mrs. Earl E.....5655 Forman Drive, Birmingham
Weston, Mrs. Horace L.....16196 Sunderland, Detroit
Weyher, Mrs. R. F.....5383 Oakman Blvd., Detroit 4
Whelan, Mrs. Joseph.....1360 Oxford Rd., Grosse Pointe 36
White, Mrs. Milo R.....1187 Longfellow, Detroit
Whitehouse, Mrs. Fred W.....25512 Harmon, St. Clair Shores
Whiteley, Mrs. Robert K.....216 Lakeland, Grosse Pointe
Wiechowski, Mrs. Henry E.....538 Lochmoor Blvd., Grosse Pointe Woods 36
Wietersen, Mrs. Fred K.....1170 Oxford Rd., Birmingham
Wikiera, Mrs. Edward S.....17400 W. Outer Drive, Dearborn
Wiblard, Mrs. Rodney.....20524 Carlysle, Dearborn
Williams, Mrs. C. J.....1342 Grayton Road, Grosse Pointe
Wilson, Mrs. Gerald.....4800 Leslie Ave., Detroit
Wise, Mrs. Robert K.....17365 Muirland, Detroit
Wisniewski, Mrs. E. M.....20100 Cooley, Detroit
Wissman, Mrs. Harry C.....6815 Oakman Blvd., Dearborn
Witter, Mrs. Joseph A.....17516 Fairfield, Detroit
Witwar, Mrs. E. R.....17452 Third Ave., Detroit
Wolfe, Mrs. Max O.....8120 E. Jefferson, Detroit
Wolter, Mrs. James G.....4494 Chamberlain, Birmingham
Wood, Mrs. Douglas....30550 Marimoor Dr., Birmingham
Wood, Mrs. Kenneth A.....4833 Mayflower Court Bloomfield Hills
Wybranowski, Mrs. Jan.....20651 Crestmont Lane, Dearborn

Yott, Mrs. Wm. J.....854 Lake Shore Rd., Grosse Pointe
Young, Mrs. Don A.....376 Dunston Road, Bloomfield Hills
Young, Mrs. Lloyd B.....16603 Shaftsbury Rd., Detroit

Zabinski, Mrs. Edward.....585 Ballantyne, Grosse Pointe
Zawacki, Mrs. Sigmund.....12950 S. Morrow Circle, Dearborn
Zbudowski, Mrs. Myron.....889 Bloomcrest, Birmingham
Zukowski, Mrs. Henry J.....72 N. Deeplands, Grosse Pointe

WAYNE COUNTY
(Southern Branch)

Alban, Mrs. Emil J., Jr.....15287 Philomene, Allen Park
Allen, Mrs. John V.....15265 Philomene, Allen Park
Beck, Mrs. Stanley M.....12770 Veronica, Southgate
Bennett, Mrs. H. Stanley.....29767 East River Rd., Grosse Ile
Bott, Mrs. Edmund T.....1804 Thirteenth St., Wyandotte
Bower, Mrs. Donald W.....719 Liberty, Lincoln Park
Boyd, Mrs. John H.....2052 Church Pl., Trenton
Brown, Mrs. Charles H.....1729 Davis, Wyandotte
Brown, Mrs. Robt. A.....2263 West River Rd., Grosse Ile
Bruer, Mrs. B. J.....9037 Park Ave., Allen Park

Butler, Mrs. Harry R.....25830 East River Rd., Grosse Ile
Cahalan, Mrs. Joseph L.....13381 Catalpa, Wyandotte
Cameron, Mrs. Arthur J.....155 Vinewood, Wyandotte
Cassel, Mrs. Harry E.....2356 Seventeenth St., Wyandotte
Coan, Mrs. Glenn L.....24099 West River Rd., Grosse Ile
Cook, Mrs. James A.....2246 Twentieth St., Wyandotte
Costello, Mrs. Stephen D.....3418 Norwood Dr., Trenton
Deering, Mrs. Robt. J.....26225 West River Rd., Grosse Ile
Easterly, Mrs. Robt. L.....2514 Eighteenth St., Wyandotte
Engel, Mrs. Earl H.....33 Emmons Ct., Wyandotte

Erickson, Mrs. Eldon W.....29385 East River Rd., Grosse Ile
Firnschild, Mrs. Pauly G.....10528 Andrews, Allen Park
Foote, Mrs. James A.....870 Winchester, Lincoln Park
Frothingham, Mrs. George.....1657 23d St., Wyandotte
Ganos, Mrs. Thomas.....9238 Vine, Allen Park
Gilbert, Mrs. Harold R.....13146 Phelps, Wyandotte
Herkimer, Mrs. Daniel R.....1802 Buckingham, Lincoln Park
Hileman, Mrs. S. Lee.....755 New York, Lincoln Park
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Michigan State Medical Assistants Society

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311 Clay St., Lapeer

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Hill, Mrs. Jennie E.....Wm. F. Strong, M.D.
701 River St., Ontonagan

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Williams, Mildred.....Allen Medical Bldg. (Switchboard)
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108 S. Madison, Bay City

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B. Green, M.D.
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B. Green, M.D.
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519 Ship St., St. Joseph
Truhn, Shirley.....T. P. Hayes, M.D.
922 Main St., St. Joseph
Weik, Caroline.....H. I. Kelsall, M.D.
1600 Niles St., St. Joseph

Associate Member

O'Toole, Dorothy.....1423 Michigan, St. Joseph

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274 E. Chicago St., Coldwater
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MacDonald, Lydia.....N. S. Aldrich, M.D.
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Pifer, Lu Anne.....Community Health Center
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College St., Battle Creek
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Homer
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P. Ferazzi, M.D.
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P. Ferazzi, M.D.
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Robinson, Atholyn....204 W. Roosevelt Ave., Battle Creek
Taylor, Addie.....5 John Rd., Battle Creek

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309 Monitor Leader Bldg., Mt. Clemens
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H. Fogt, M.D.
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7411 Third, Detroit 2
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1129 David Whitney Bldg., Detroit 26

Kavan, Mrs. Dolores.....B. R. Parker, M.D.
19149 W. Seven Mile Rd., Detroit
Kobylka, Dolores.....J. Cunningham, M.D.
W. Sheldon, M.D.
14215 W. McNicholas, Detroit 35
Kotsch, Elizabeth.....W. Anderson, M.D.
1217 David Whitney Bldg., Detroit 26
Larry, Joan.....F. B. MacMillan, M.D.
920 David Whitney Bldg., Detroit 26
Lojowski, Lydia.....P. Klosterman, M.D.
2900 W. Grand Blvd., Detroit 2
Lowrie, Mrs. K. Phyllis.....W. A. Stryker, M.D.
2850 First St., Wyandotte
Ludin, Mrs. Gilda.....W. Sheldon, M.D.
14215 W. McNicholas, Detroit 35
MacQuesten, Mrs. Alyce.....W. N. Sims, M.D.
612 Monitor Leader Bldg., Mt. Clemens
Malkey, Grace.....M. R. McQuiggan, M.D.
C. Corbeille, M.D.
R. Turner, M.D.
1050 Fisher Bldg., Detroit 2
Marsh, Mrs. Mabel.....N. Levitt, M.D.
607 Kales Bldg., Detroit 26
McCartney, Elizabeth.....H. A. Dunlap, M.D.
7815 E. Jefferson, Detroit 14
McIntosh, Mrs. Cora.....C. Matthews, M.D.
91 Cass Ave., Mt. Clemens
Miller, Mrs. Virginia.....C. F. Schroeder, M.D.
7815 E. Jefferson, Detroit 14
Morgan, Mrs. Dorothe K.....F. J. Fisher, M.D.
654 Fisher Bldg., Detroit 2
Morgan, Mrs. Rae.....E. H. Sieber, M.D.
J. W. Pichette, M.D.
15112 Michigan Ave., Dearborn
Murphy, Patricia.....R. Crossen, M.D.
933 David Whitney Bldg., Detroit 26
Navin, Mary.....H. Sands, M.D.
24100 Oxford, Dearborn
Palmer, Mrs. Marilyn.....C. Jackson France, M.D.
17712 Mack Ave., Grosse Pointe 24
Peters, Mary.....R. L. Larned, M.D.
14182 Gratiot, Detroit 5
Rastique, Mrs. Margaret.....S. B. Ekelman, M.D.
37546 S. Gratiot, Mt. Clemens
Redman, Marlouise.....W. Moore, M.D.
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R. Whitcock, M.D.
18350 Mack Ave., Grosse Pointe Farms
Rice, Mrs. Jacqueline.....M. J. LaBerge, M.D.
R. W. Ridge, M.D.
100 Oak St., Wyandotte
Ring, Mrs. Louise.....J. Woolfenden, M.D.
20055 Mack Ave., Detroit 24
Rodones, Mary.....O. Brien, M.D.
Wm. Tuttle, M.D.
307 David Whitney Bldg., Detroit 26
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15301 W. Nine Mile Rd., Oak Park
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14219 W. McNicholas, Detroit 35
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14634 E. Seven Mile Rd., Detroit 5
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1311 David Whitney Bldg., Detroit 26
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H. G. Simon, M.D.
18031 Kelly Rd., Detroit 5
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7411 Third Ave., Detroit 2
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5764 Woodward, Detroit 2
Stark, Mary Kay.....B. C. Ross, M.D.
4493 Fourteenth St., Detroit 8
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N. Feldman, M.D.
11420 Mack, Detroit 14
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L. G. Heyman, M.D.
19001 W. Seven Mile Rd., Detroit 19
Todt, Mrs. Claire.....J. P. Hubbard, M.D.
14620 E. Seven Mile Rd., Detroit 5
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A. A. Ulmer, M.D.
8845 E. Jefferson, Detroit 14
Voss, Loretta.....O. Geib, M.D.
341 Main St., Rochester
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44 S. Gratiot, Mt. Clemens
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2387 Fort St., Wyandotte
Wheeler, Mrs. Margaret.....W. Tuttle, M.D.
307 David Whitney Bldg., Detroit 26
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968 Fisher Bldg., Detroit 2
Woody, Doris.....A. J. Arrington, M.D.
7811 Oakland, Detroit 11
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17201 W. McNicholas Rd., Detroit 35
Zelle, Elizabeth.....I. Botvinick, M.D.
13701 W. Seven Mile Rd., Detroit 35

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Currier, Mildred.....10 Louise Ave., Highland Park
Heidelberger, Freda.....1438 Ferry Park, Detroit 8

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Cooper, Sally.....R. E. Landick, M.D.
111 S. Cochran, Charlotte
Crandall, Bess.....J. Riley, M.D.
201½ S. Cochran, Charlotte
Davis, Judy.....Eaton Rapids Community Hospital
Eaton Rapids
Fuller, Catherine.....C. L. DeLand, M.D.
121 S. Main, Olivet
Jodron, Mary E.....Eaton Rapids Community Hospital
Eaton Rapids
Lease, Lois L.....Eaton Rapids, Community Hospital
Eaton Rapids
Marple, June.....J. Riley, M.D.
201½ S. Cochran, Charlotte
Robinson, Luella.....C. L. DeLand, M.D.
121 S. Main, Olivet
Stevens, Shirley.....Eaton Rapids Community Hospital
Eaton Rapids
Van Auker, Mary.....Eaton Rapids Community Hospital
Eaton Rapids
Wenger, Eileen.....Hayes-Green-Beach Hospital
Charlotte

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Ames, Mrs. Thelma.....R. Scott, M.D.
1215 Detroit St., Flint 6
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2765 Flushing Rd., Flint
Bartlett, Mrs. Shirley.....S. N. Lyttle, M.D.
615 Mott Bldg., Flint 3
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1312 Mott Bldg., Flint 4
Birk, Mrs. Bernice.....Hurley Hospital
Flint
Carto, Aili.....T. Finkelstein, M.D.
H. L. Varney, M.D.
1415 Broadway Blvd., Flint 6
Coombs, Mrs. Eva.....T. Finkelstein, M.D.
1415 Broadway Blvd., Flint 6
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3002 Mason St., Flint
Domine, Lucille.....R. S. Van Horn, M.D.
1651 Detroit St., Flint 6
Elliott, Mrs. Selma.....W. Morrison, M.D.
205 Perry Rd., Flint
English, Mrs. Dorothy.....S. Sorkin, M.D.
718 Beach St., Flint
Finton, Mrs. Jonnet.....F. A. Barbour, M.D.
1433 Mott Bldg., Flint
Ford, Mrs. Lucille.....J. Schultz, M.D.
3327 Fleming Rd., Flint 4
Foster, Mrs. Maybelle.....R. F. Hague, M.D.
210 E. Court St., Flint
Greenman, Mrs. May.....J. Portney, M.D.
428 Stevens St., Flint 3
Haario, Mrs. Barbara.....L. Bateman, M.D.
1928 Lewis St., Flint 6
Hagerty, Katherine.....G. Anthony, M.D.
1016 Detroit St., Flint 4
Hatfield, Mrs. Martha.....R. Ettinger, M.D.
111 Walnut St., Fenton
Hunt, Mrs. Ardith.....R. M. Ragan, M.D.
R. A. Dykewicz, M.D.
2768 Flushing Rd., Flint
Higgins, Mrs. Helen.....B. S. Farah, M.D.
J. Quinn, Jr., M.D.
2765 Flushing Rd., Flint 4
Jaarsma, Mrs. Nancy (Poe).....R. A. Jaarsma, M.D.
2765 Flushing Rd., Flint 4
Johnson, Mrs. Ann.....W. F. Buchanan, M.D.
J. A. Martin, M.D.
238 Caroline St., Fenton
Kile, Mrs. Julia.....R. Michelson, M.D.
5001 N. Saginaw St., Flint
Kontyko, Mrs. Marguerite.....T. Finkelstein, M.D.
1415 Broadway Blvd., Flint 6
Lande, Mrs. Grace.....L. Kaufman, M.D.
4002 N. Saginaw, Flint 5
Lundgren, Mrs. Ethel.....J. Manwaring. M.D.
1654 Seminole, Flint 3
Marran, Eileen.....J. E. Wentworth, M.D.
1651 Chevrolet Ave., Flint 4
Martin, Mrs. Katherine.....J. R. Grommons, M.D.
1654 Seminole, Flint 3
Milliken, Mrs. Madelyn.....C. Richards, M.D.
213 Mercer, Durand
McFadden, Lorraine.....G. Beyer, M.D.
3337 W. Vienna Rd., Clio
Moore, Ruth.....R. H. Willard, M.D.
M. L. Sorkin, M.D.
M. D. Zeis, M.D.
718 Beech St., Flint 3
Neault, Mrs. Virginia.....F. H. Steinman, M.D.
734 Mott Bldg., Flint
Niec, Mrs. Patricia Ann.....R. M. Ragan, M.D.
2768 Flushing Rd., Flint 4
O'Berry, Mrs. Emily.....C. Hurd, M.D.
300 Robert St., Fenton
Pasco, Mrs. Irene.....C. Hurd, M.D.
300 Robert St., Fenton
Paxton, Mrs. Dorothy.....M. N. Farhat, M.D.
815 E. Court St., Flint
Pillen, Mrs. Joyce.....W. H. Morrison, M.D.
Grand Blanc
Sadler, Mrs. Joyce.....F. Steinman, M.D.
517 Mott Bldg., Flint
Sharon, Mary Lou.....H. V. Sparks, M.D.
Flushing Rd., Flint
Shroyer, Mrs. Ilah.....G. Rieth, M.D.
1402 Davison Rd., Flint 6
Smith, Mrs. Dorothy.....L. Bateman, M.D.
1928 Lewis St., Flint 6
Steinman, Mrs. Mildred.....W. H. Morrison, M.D.
Grand Blanc
Swartour, Mrs. Juanita.....L. Shantz, M.D.
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Taylor, Mrs. Mildred.....L. D. Kaufman, M.D.
4002 N. Saginaw St., Flint 5
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Montrose
Thomas, Mrs. Ilah.....R. N. Engelman, M.D.
2765 Flushing Rd., Flint 4
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William F. Buchanan, M.D.
238 N. Caroline, Finton
Wessendorg, Mrs. Jean.....F. V. Wade, M.D.
1303 Mott Bldg., Flint
Wood, Mrs. Eleanor.....E. Bernstein, M.D.
316 Kresge Bldg., Flint 3
Wood, Mrs. Hollis.....E. Bernstein, M.D.
316 Kresge Bldg., Flint 3
Yerkey, Mrs. Donna.....J. Batdorf, M.D.
Grand Blanc

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Kjillin, Mrs. Lillian (Simmons).....3702 Keller. Flint

HOUGHTON-BARAGA-KEWEENAW COUNTIES
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208 Quincy St., Hancock
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Houghton Branch, Houghton
Coon, Vivian.....Michigan State Health Dept.,
Houghton Branch, Houghton
DeCaire, Mrs. Beatrice....Michigan State Health Dept.,
Houghton Branch, Houghton
Heide, Mary.....P. S. Sloan, M.D.
Houghton
Warner, Mrs. Ann.....A. B. Aldrich, M.D.
Houghton

JACKSON COUNTY
Number of Members, 60

Albright, Mrs. Anne.....J. W. Rice, M.D.
421 McNeal St., Jackson

Bechrol, Mrs. Marjre.....J. E. Ludwick, M.D.
J. P. Ludwick, M.D.
237 W. Washington Ave., Jackson

Beemer, Mrs. Joette.....G. C. Hardie. M.D.
724 W. Michigan Ave., Jackson

Burke, Jan.....E. Adams, M.D.
517 Wildwood Ave., Jackson

Burke, Mrs. Lois.....D. F. Kudner, M.D.
435 Wildwood Ave., Jackson

Cass, Mrs. Evelyn.....J. Scott, M.D.
432 W. Michigan Ave., Jackson

Chappell, Margaret.....H. K. Filip, M.D.
755 W. Michigan Ave., Jackson

Collins, Mrs. Aleta.....H. L. Oster, M.D.
1218 Greenwood Ave., Jackson

Collins, Mrs. Marion.....R. Medlar, M.D.
719 17th St., Jackson

Crippen, Mrs. Doris.....E. F. Luh, M.D.
328 W. Franklin, Jackson

Drummond, Mrs. Marie.....R. Kobs, M.D.
608 W. Michigan Ave., Jackson

Duffey, Mrs. Helen.....E. Stone, M.D.
721 Seventeenth St., Jackson

Ferman, Mrs. Jaunita.....G. L. Otis, M.D.
525 Wildwood Ave., Jackson

Green, Mrs. Stella.....F. Van Schoick, M.D.
419 W. High St., Jackson

Griffes, Mrs. Wanetta.....D. Landron, M.D.
4633 Page Ave., Michigan Center

Grossman, Mrs. Nellie.....N. D. Monro, M.D.
740 W. Michigan Ave., Jackson

Habenicht, Mrs. Federica.....H. Habenicht, M.D.
545 Lansing Ave., Jackson

Hackenberg, Mrs. Dorothy.....L. Morelli, M.D.
401 W. Prospect, Jackson

Hansen, Mrs. Frances.....W. A. Wickham, M.D.
435 Wildwood Ave., Jackson

Hoeg, Mrs. Ruth.....D. F. Kudner, M.D.
435 Wildwood Ave., Jackson

Hoover, Mrs. Twyla.....J. H. Ahroheim, M.D.
205 N. East Ave., Jackson

Howard, Mrs. Onalee.....E. Adams, M.D.
517 Wildwood Ave., Jackson

Jeffery, Mrs. Beth.....D. F. Kudner, M.D.
435 Wildwood Ave., Jackson

Johnson, Violet.....F. I. Van Wagnen, M.D.
434 Wildwood Ave., Jackson

Kenny, Mari.....E. C. Lake, M.D.
612 First St., Jackson

Knepper, Mrs. Margaret.....L. L. Olsen, M.D.
R. E. Finton, M.D.
610 W. Michigan Ave., Jackson

Kolter, Mrs. Madeline.....D. F. Kudner, M.D.
435 Wildwood Ave., Jackson

Kristoff, Mrs. Elizabeth.....E. C. Corley, M.D.
1401 Reynolds Bldg., Jackson

Lantis, Mrs. Pearl.....E. A. Thayer, M.D.
1104 National Bank Bldg., Jackson

Latham, Mrs. Pattie.....J. Bentley, M.D.
M. Bentley, M.D.
2532 Spring Arbor Rd., Jackson

Mandeville, (Krolikowski) Mrs. Louise....E. Stone, M.D.
721 Seventeenth St., Jackson

McGuire, Mrs. Diane.....T. E. Schmidt, M.D.
1202 Reynolds Bldg., Jackson

McRae, Mrs. Beatrice.....J. B. Holst, M.D.
606 City Bank Bldg., Jackson

Mendez, Mary Lou.....J. W. Wholihan, M.D.
604 W. Michigan Ave., Jackson

Miller, Mrs. Beatrice.....J. Bentley, M.D.
M. Bentley, M.D.
2532 Spring Arbor Rd., Jackson

Nanry, Mrs. Carolyn.....E. C. Lake, M.D.
612 First St., Jackson

Paul, Anna.....H. Greenbaum, M.D.
1203 Greenwood Ave., Jackson

Phelps, Mrs. Evelyn.....J. E. Ludwick, M.D.
J. P. Ludwick, M.D.
237 W. Washington Ave., Jackson

Porter, Mrs. Ruth.....J. W. Rice, M.D.
421 McNeal St., Jackson

Renner, Mrs. Ruth.....W. A. Foote Hospital
205 N. East Ave., Jackson

Repasy, Mrs. Dolores.....City Health Department
312 S. Jackson St., Jackson

Rountree, Mary Jo.....R. C. Deming, M.D.
C. A. Stolberg, M.D.
724 W. Franklin St., Jackson

Rutan, Cecile D.....J. D. Van Schoick, M.D.
212 W. Main St., Hanover

Schulz, Mrs. Mary.....F. P. McQuillan, M.D.
611 Center St., Jackson

Seagert, Mrs. Vadah.....A. Sirhal, M.D.
Brooklyn

Shotwell, Mrs. Letha.....R. C. Deming, M.D.
C. A. Stolberg, M.D.
724 W. Franklin St., Jackson

Smith, Mrs. Dorothy.....A. M. Shaffer, M.D.
1615 Carlton Blvd., Jackson

Stabenow, Mrs. June.....B. M. Daly, M.D.
297 W. Michigan Ave., Jackson

Stage, Mrs. Judy.....L. L. Olsen, M.D.
R. E. Finton, M.D.
610 W. Michigan Ave., Jackson

Story, Marion.....W. A. Foote Hospital
205 N. East Ave., Jackson

Studley, Mrs. Janet (Walters).....G. C. Hardie, M.D.
724 W. Michigan Ave., Jackson

Todd, Mrs. Margaret.....S. Sugar, M.D.
509 Reynolds Bldg., Jackson

Vinson, Mrs. Pearl.....W. A. Foote Memoral Hospital
205 N. East Ave., Jackson

Whiting, Norma.....Ed. Torwick, M.D.
501 Dwight Bldg., Jackson

Whitmore, Mrs. Marion.....R. C. Deming, M.D.
C. A. Stolberg, M.D.
724 W. Franklin St., Jackson

Williams, Mrs. Margaret.....G. C. Hardie, M.D.
724 W. Michigan Ave., Jackson

Wood, Mrs. Thelma.....A. K. Payne, M.D.
L. Sargent, M.D.
205 N. East Ave., Jackson

Woodward, Mrs. Mary Joyce.....L. L. Olson, M.D.
R. E. Finton, M.D.
610 W. Michigan Ave., Jackson

Woodfield, Mrs. Betty.....J. E. Ludwick, M.D.
J. P. Ludwick, M.D.
237 W. Washington Ave., Jackson

Associate Member

Burdick, Mrs. Thelma.....410 N. Pleasant St., Jackson

INGHAM COUNTY

Number of Members, 44

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810 Mich. Nat'l Tower Bldg., Lansing
Bedwin, Mrs. Florence.....D. J. Aiken, M.D.
Grand River and Grandview, Okemos
Bellinger, Mrs. Louella.....William E. Clark, M.D.
D. A. Cairns, M.D.
136 W. Ash, Mason
Bennett, Mrs. Sally.....I. Silverman, M.D.
2909 E. Grand River, Lansing
Block, Mrs. Ruthjane.....R. W. Pomeroy, M.D.
609 N. Washington Ave., Lansing
Brandis, Mrs. Dorothy.....C. J. Stringer, M.D.
A. L. Stanley, M.D.
401 W. Greenlawn, Lansing
Bruner, Mrs. Jane.....W. O. Badgley, M.D.
624 N. Capital Ave., Lansing
Dean, Mrs. Pauline.....C. F. Holland, M.D.
J. F. Scallin, M.D.
125 W. Saginaw St., Lansing
Dow, Mrs. Thelma.....F. M. Dunn, M.D.
301 Seymour, Lansing
English, Mrs. Helen.....Ingham Chest Hospital
401 W. Greenlawn, Lansing
Frenchen, Jean Marie.....A. D. Calomeni, M.D.
309 Seymour, Lansing
Garrison, Mrs. Lydia Ruth.....William E. Clark, M.D.
D. A. Cairns, M.D.
136 W. Ash, Mason
Gaskun, Mrs. Kathleen.....F. B. Hackert, M.D.
1105 Bank of Lansing Bldg., Lansing
Gettz, Mrs. Zelma.....C. J. Stranger, M.D.
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401 W. Greenlawn, Lansing
Gilmore, Mrs. Virginia.....W. E. Stephan, M.D.
301 Seymour, Lansing
Grams, Carol A.....D. LeDuc, M.D.
317 W. St. Joseph, Lansing
Hermes, Mrs. Dawn.....E. J. Hermes, M.D.
604 W. Willow, Lansing
Holmes, Mrs. Marilyn.....H. W. Harris, M.D.
609 N. Washington, Lansing
Hyde, Mrs. Dorothy.....R. W. Pomeroy, M.D.
609 N. Washington, Lansing
Ilten, Mrs. Rudi.....H. W. Malcolm, M.D.
401 W. Grand River, East Lansing
King, Elaine Mary.....F. M. Dunn, M.D.
301 Seymour, Lansing
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515 S. Grand Ave., Lansing
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1515 W. Mt. Hope, Lansing
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1215 E. Michigan Ave., Lansing
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R. W. Pomeroy, M.D.
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320 Townsend, Lansing
Morgan, Mrs. Eileen C.....J. K. Heckert, M.D.
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R. W. Pomeroy, M.D.
609 N. Washington Ave., Lansing
Penner, Mrs. Clella.....H. W. Harris, M.D.
609 N. Washington Ave., Lansing
Porterfield, Ruth.....P. C. Spencer, M.D.
320 Townsend, Lansing
Preston, Mrs. Erleen.....E. W. Brubaker, M.D.
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Priest, Pauline.....J. F. Sander, M.D.
4780 Okemos Rd., Okemos
Rasmussen, Eleanor.....K. J. Feeney, M.D.
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Rathbun, Mrs. Beatrice.....E. W. Brubaker, M.D.
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317 W. St. Joseph, Lansing
Richardson, Mrs. Beth.....S. R. Govons, M.D.
408 N. Capitol Ave., Lansing
Schaible, Mrs. Joyce.....W. O. Badgley, M.D.
624 N. Capitol Ave., Lansing
Trethewey, Mrs. Elvi.....C. J. Stringer. M.D.
401 W. Greenlawn Ave., Lansing
Turk, Mrs. Bernice.....R. C. Bates, M.D.
2909 E. Grand River, Lansing
Warner, Mrs. Orine Alberta.....R. C. Bassett, M.D.
601 S. Capitol Ave., Lansing
Woolhouse, Mrs. Marguerite.....M. Shaw, M.D.
320 Townsend, Lansing
Wyman, Mrs. Mary.....Ingham Chest Hospital
401 W. Greenlawn Ave., Lansing

KALAMAZOO COUNTY

Number of Members, 128

Angel, Mrs. Lila.....R. K. Currier, M.D.
D. A. Haddock, M.D.
V. Berglund, M.D.
6646 Portage Rd., Kalamazoo
Annen, Mrs. Catharina.....W. B. Crane, M.D.
420 S. Rose St., Kalamazoo
Ash, Mrs. Charlotte.....H. H. Stryker, M.D.
G. Howard, M.D.
R. E. DeLong, M.D.
Borgess Hospital, Kalamazoo
Baeuerle, Mrs. Ardys.....J. Loynd, M.D.
1324 S. Park St., Kalamazoo
Blackmore, Mrs. Violet.....D. May, M.D.
516 Whites Rd., Kalamazoo
Boes, Mrs. Ileane.....E. Betz, M.D.
1711 Merrill St., Kalamazoo
Borst, Mrs. Evelyn.....F. C. Cretsinger, M.D.
S. E. Andrews, M.D.
224 E. Cedar St., Kalamazoo
Boysen, Mrs. Margaret.....F. E. Clement, M.D.
420 John St., Kalamazoo
Brady, Patricia.....Borgess Hospital
Gull Rd., Kalamazoo
Brainard, Mrs. Norine.....P. Cooper, M.D.
C. G. Callander, M.D.
220 Bronson Medical Center, Kalamazoo
Burkam, Mrs. Bethal.....R. D. Warnke, M.D.
203 Borgess Medical Center, Kalamazoo
Burgert, Beverly.....D. W. McMillan, M.D.
1631 Gull Rd., Kalamazoo
Byington, Virginia.....J. V. Fopeano, M.D.
1711 Merrill St., Kalamazoo

Chappell, Mrs. Marguerite.....M. Peelen, M.D.
K. VanderVelde, M.D.
T. A. McLennan, M.D.
320 Bronson Medical Center, Kalamazoo
Conway, Mrs. Marcella.....J. Malone, M.D.
420 John St., Kalamazoo
Corzine, Mrs. Dorothy.....W. B. Crane, M.D.
420 S. Rose St., Kalamazoo
Crossley, Mrs. Laura.....H. S. Heersma, M.D.
R. R. Dew, M.D.
1711 Merrill St., Kalamazoo
DeHoog, Mrs. Dora.....Kalamazoo State Hospital
Oakland Dr., Kalamazoo
Dines, Mrs. Janet.....A. J. Neerken, M.D.
1318 Amer. Nat'l Bank Bldg., Kalamazoo
Duyser, Mrs. Dorothy.....F. C. Ryan, M.D.
L. R. Banner, M.D.
106 Borgess Medical Center, Kalamazoo
Dziewicki, Walterina.....R. Armstrong, M.D.
K. Slatmyer, M.D.
William Marshall, M.D.
R. Stewart, M.D.
605 Hanselman Bldg., Kalamazoo
Eddy, Mrs. Betty.....M. H. Zolen, M.D.
628 S. Park St., Kalamazoo
Eddy, Mrs. Doris.....P. Cooper, M.D.
220 Bronson Medical Center, Kalamazoo
Elsenheimer, Mrs. Helen.....Radiology
458 W. South St., Kalamazoo
Engel, Virginia.....W. K. Locklin, M.D.
C. A. Gardner, M.D.
1410 Amer. Nat'l Bank Bldg., Kalamazoo
Farwell, Mrs. Dessie.....J. W. Kavanaugh, M.D.
206 Borgess Medical Center, Kalamazoo
Fessenden, Hazel.....K. Currier, M.D.
D. Haddock, M.D.
V. A. Berglund, M.D.
6646 Portage St., Kalamazoo
Flynn, Mrs. Edith.....H. E. DePree, M.D.
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G. P. Raynale, M.D.
301 Wabeek Bldg., Birmingham
Ibbotson, Florence.....W. J. Zimmerman, M.D.
N. C. Brady, M.D.
258 Washington Square Bldg., Royal Oak
Jensen, Genevieve B.....T. Watson, M.D.
A. K. Stolpman, M.D.
640 N. Woodward Ave., Birmingham
Kinney, Arthur N.....St. Joseph's Mercy Hospital
800 Woodward Ave., Pontiac
Kubiac, Beatrice G.....H. C. Crisman, M.D.
22750 Woodward Ave., Ferndale
Mancour, Edith.....E. Bauer, M.D.
B. Bauer, M.D.
W. Bauer, M.D.
22643 Stephenson Hwy., Hazel Park
May, Dorothy.....R. M. Bookmyer, M.D.
J. M. Dorsey, M.D.
1890 Southfield Rd., Birmingham
McIntosh, Dorothy.....W. J. Zimmerman, M.D.
N. C. Brady, M.D.
258 Washington Square Bldg., Royal Oak
McLeod, Wilma J.....T. J. McInernay, M.D.
109 E. Eleven Mile Rd., Royal Oak
Melbourne, Dorothea.....J. Esslinger, M.D.
610 N. Woodward Ave.
Birmingham
Montgomery, Ann P.....R. R. Wessels, M.D.
G. P. Raynale, M.D.
301 Wabeek Bldg., Birmingham
Mosher, Vivian C.....William Beaumont Hospital
Royal Oak
Needham, Margaret.....N. J. Goode, M.D.
1117 S. Washington Ave., Royal Oak
Noble, Mrs. Eleanor (Lotz).....L. E. Dunn, M.D.
3924 W. Twelve Mile Rd., Berkley
Oakes, Elizabeth.....J. Read, M.D.
610 N. Woodward Ave., Birmingham
Padula, Wilma.....B. Gariepy, M.D.
120 W. First St., Royal Oak
Pinneo, Thelma.....L. H. Spencer, M.D.
1219 S. Washington Ave., Royal Oak
Polzin, Arlene.....J. I. Nosanchuk, M.D.
1216 Pontiac State Bank Bldg., Pontiac
Rehm, Helen.....S. M. Lewis, M.D.
400 W. Nine Mile Rd., Ferndale
Rippe, Janet A.....D. Barnes, M.D.
1126 S. Woodward Ave., Royal Oak
Slegt, Gertrude.....J. F. Pearce, M.D.
617 Washington Square Bldg., Royal Oak
Still, Margo L.....Merrill Medical Laboratory
325 Washington Square Bldg., Royal Oak
Swenson, Hulda I.....E. M. Steffes, M.D.
3345 Coolidge, Berkley
Thompson, Mary S.....F. H. McCain, M.D.
628 N. Woodward Ave., Birmingham
Uhnavy, Arlene.....P. J. Lauz, M.D.
3027 N. Woodward Ave., Royal Oak
Warntz, Verlie P.....J. I. Nosanchuk, M.D.
1216 Pontiac State Bank Bldg., Pontiac
Weaver, Bertha J.....T. Watson, M.D.
A. K. Stolpman, M.D.
640 N. Woodward Ave., Birmingham
Wooster, Avis G.....R. G. Ferris, M.D.
55 W. Maple, Birmingham
Worthley, Ruth L.....J. R. Flick, M.D.
120 W. Second St., Royal Oak

Associate Member

Read, Emmeline Mary.....1657 Pearson, Ferndale

OTTAWA COUNTY

Number of Members, 23

Blauwkamp, Joyce.....G. J. Kemme, M.D.
Zeeland
Bolthouse, Julia.....F. W. DeYoung, M.D.
Spring Lake
Branyan, Mrs. Vivian.....K. N. Wells, M.D.
Spring Lake
Brazda, Mrs. Norma....Grand Haven Municipal Hospital
Grand Haven
Brewer, Mrs. Audrey.....Holland City Hospital
Holland
Brouwer, Mrs. Ruth.....J. B. Kearney, M.D.
Holland
Christensen, Janet.....D. E. DeWitt, M.D.
549 W. Eighteenth, Holland
DeBoer, Marion.....A. Bonzelaar, M.D.
788 Columbia Ave., Holland
DeVries, Annetta.....P. J. DeVries, M.D.
321 Washington, Grand Haven
Dirkse, Annette.....E. H. Beernink, M.D.
Fulton St., Grand Haven

Frietchen, Luella.....J. Kitchel, M.D.
Franklin St., Grand Haven
Getsch, Mrs. Eleanor (Bareman)....Holland City Hospital
Holland
Goodyke, Berdena.....C. E. Boone, M.D.
J. H. Yff, M.D.
Zeeland
Jones, Mrs. Helen.....Grand Haven Municipal Hospital
Grand Haven
Klevering, Joyce.....Grand Haven Municipal Hospital
Grand Haven
Miller, Mrs. Dorothy.....W. M. Rypkema, M.D.
Grand Haven
Mouw, Catherine.....B. M. Veenstra, M.D.
116 S. Fourth St., Grand Haven
Ten Harmsel, Joyce.....W. Westrate, M.D.
Holland
Stephenson, Maxine.....W. Westrate, M.D.
Holland
Wiegerink, Mary.....Grand Haven Municipal Hospital
Grand Haven
Winkels, Donna.....G. J. Kemme, M.D.
Zeeland
Wilds, Mary C.....V. B. Bloemendal, M.D.
Grand Haven
Zurkewich, Mrs. Rose.....F. L. Groat, M.D.
631 Franklin, Grand Haven

SAGINAW COUNTY

Number of Members, 65

Adair, Mrs. Mernia.....J. Markey, M.D.
F. Markey, M.D.
R. Vitu, M.D.
808 N. Michigan Ave., Saginaw
Allen, Mrs. Doris.....R. Ryan, M.D.
633 S. Washington, Saginaw
Allen, Twila.....A. C. Stander, M.D.
1411 Court St., Saginaw
Barnett, Mrs. Sylvia.....J. W. Manning, M.D.
H. M. Bishop, M.D.
515 S. Jefferson, Saginaw
Bluem, Donna.....J. E. Manning, M.D.
J. H. Gardner, M.D.
815 N. Michigan Ave., Saginaw
Bottke, Mrs. Doris.....D. Heilbronn, M.D.
1703 N. Michigan Ave., Saginaw
Bray, Mrs. Carol (Garlik).....H. Slade, M.D.
520 W. Genesee, Saginaw
Brin, Mrs. Beth.....J. E. Manning, M.D.
J. H. Gardner, M.D.
815 N. Michigan Ave., Saginaw
Broadwater, Mrs. Gertrude.....O. Lohr, M.D.
537 Millard St., Saginaw
Burns, Mrs. Dorothy.....J. O. Goodsell, M.D.
D. C. Durman, M.D.
408 S. Jefferson, Saginaw
Carter, Mrs. Flora.....A. Clayton, M.D.
603 N. 3rd St., Saginaw
Cook, Maxine.....St. Mary's Hospital
830 S. Jefferson, Saginaw
Crawford, Carolyn.....O. Lohr, M.D.
537 Millard St., Saginaw
Cummins, Hallie.....W. W. Dickinson, M.D.
Caro State Hospital, Caro
Dietzel, Mrs. Alice.....O. Nelson, M.D.
120 N. Michigan Ave., Saginaw
Doran, Mrs. Dianne.....A. C. Stander, M.D.
1411 Court St., Saginaw
Erickson, Marie.....W. T. Hyslop, M.D.
Adult Mental Health Clinic
1610 Gratiot St., Saginaw
Frisch, Elizabeth.....D. B. Ruskin, M.D.
321 Graebner Bldg., Saginaw
Fulton, Eleanor.....O. Lohr, M.D.
537 Millard St., Saginaw
Gardyko, Mrs. Loretta.....J. Lassignal, M.D.
2125 Bay St., Saginaw
Golson, Mrs. Beradine.....T. Kretschmer, M.D.
1232 N. Michigan Ave., Saginaw
Griffin, Mrs. Marilyn.....W. Mason, M.D.
R. Heavenrich, M.D.
R. Jarvi, M.D.
1107 Gratiot St., Saginaw
Gossett, Judy.....W. Mason, M.D.
R. Heavenrich, M.D.
R. Jarvi, M.D.
1107 Gratiot St., Saginaw
Hamil, Mrs. Lorayne.....J. O. Goodsell, M.D.
D. C. Durman, M.D.
408 S. Jefferson, Saginaw
Hawkins, Helen.....E. G. Hester, M.D.
2031 N. Michigan Ave., Saginaw
Hawkins, June.....St. Mary's Hospital
830 S. Jefferson, Saginaw
Hayden, Helen.....A. K. Cameron, M.D.
409 First Savings & Loan Bldg., Saginaw
Hesse, Mary E.....C. Toshach, M.D.
331 S. Jefferson, Saginaw
Hohisel, Mrs. Elsie.....City Health Department
City Hall, 1315 S. Washington, Saginaw
Holland, Mrs. Delores.....J. W. James, M.D.
1021 W. Genesee Ave., Saginaw
Jackson, Doris.....W. Webb, M.D.
1502 Wadsworth, Saginaw
LaLonde, Mrs. Hilda.....O. Nelson, M.D.
120 N. Michigan Ave., Saginaw
List, Mrs. Harriet.....H. Ballmer, M.D.
2715 Ashman, Midland
Little, Mrs. Joan.....T. E. Bratrud, M.D.
St. Lukes Hospital, 705 Cooper St., Saginaw
Loth, Mrs. Anita.....H. A. Phillips, M.D.
420 First Savings & Loan Bldg., Saginaw
Luplow, Mrs. Lorine.....D. Sargent, M.D.
1703 N. Michigan Ave., Saginaw
Mallak, Mrs. Evelyn.....O. Lohr, M.D.
537 Millard St., Saginaw
Menthen, Mrs. Marion.....R. App, M.D.
520 W. Genesee, Saginaw
Miller, Madeline.....W. G. Underhill, M.D.
H. Mayne, M.D.
120 N. Michigan Ave., Saginaw
Mills, Mildred.....E. Galsterer, M.D.
124 S. Jefferson, Saginaw
Nickle, Mrs. Charlotte.....A. Weiss, M.D.
3521 State St., Saginaw
Nighswander, Margaret.....W. Mason, M.D.
R. Heavenrich, M.D.
R. Jarvi, M.D.
1107 Gratiot St., Saginaw
Parisi, Margaret.....J. W. Manning, M.D.
H. M. Bishop, M.D.
515 S. Jefferson, Saginaw
Plettenberg, Mrs. Mary.....G. Ackermann, M.D.
124 S. Jefferson, Saginaw
Roberts, Mrs. Edna.....M. Sharp, M.D.
1803 N. Michigan Ave., Saginaw
Rummer, Phyllis.....R. Northway, M.D.
505 First Savings & Loan Bldg., Saginaw
Rupprecht, Edna.....F. P. Brender, M.D.
117 Hubinger St., Frankenmuth
Sauve, Mrs. Janet (Savage).....R. Heavenrich, M.D.
W. Mason, M.D.
R. Jarvi, M.D.
1107 Gratiot St., Saginaw

Scheanwald, Marjorie.....D. Sargent, M.D.
1703 N. Michigan Ave., Saginaw
Seabrook, Mrs. Muril.....E. F. Kickham, M.D.
309 S. Jefferson, Saginaw
Smith, Yvonne.....E. G. Hester, M.D.
2031 N. Michigan Ave., Saginaw
Stein, Virginia.....L. Bruggers, M.D.
1703 N. Michigan Ave., Saginaw
Swift, Mrs. Marion.....W. G. Underhill, M.D.
H. Mayne, M.D.
120 N. Michigan Ave., Saginaw
Thompson, Joan.....A. W. Farley, M.D.
1803 N. Michigan Ave., Saginaw
Thompson, Margaret.....S. Yntema, M.D.
331 S. Jefferson Ave., Saginaw
Toth, Dorothy.....C. P. Olson, M.D.
405 First Savings & Loan Bldg., Saginaw
Utermark, Mrs. Lois.....F. P. Brender, M.D.
117 Hubinger, Frankenmuth
Vallier, Mrs. Lena.....W. G. Underhill, M.D.
H. Mayne, M.D.
120 N. Michigan Ave., Saginaw
Wahl, Harriet.....F. Busch, M.D.
1713 N. Michigan Ave., Saginaw
Weir, Mrs. Nona.....E. Galsterer, M.D.
124 S. Jefferson, Saginaw
Wettlin, Mrs. Evelyn.....W. Webb, M.D.
1502 Wadsworth, Saginaw
Willert, Mrs. Dorothy.....M. J. Murray, M.D.
603 S. Jefferson, Saginaw
Witherspoon, Jean.....A. Weiss, M.D.
3521 State St., Saginaw

Associate Members

Bindon, Mrs. Ruth.....1825 Amherst St., Saginaw
Mutscheller, Meta.....1338 Mott St., Saginaw

ST. CLAIR COUNTY
Number of Members, 19

Bower, Mrs. Mary.....E. E. Ludwig, M.D.
916 Seventh St., Port Huron
Chartrand, Mrs. Olga (Revenko)....J. R. Gilmore, M.D.
817 Mich. Nat'l Bank Bldg., Port Huron
Draper, Mrs. Shirley.....R. S. Bailey, M.D.
400 Mich. Nat'l Bank Bldg., Port Huron
Eagen, Mrs. Florence.....R. M. Lugg, M.D.
619 River St., Port Huron
Fogal, Mrs. Donna.....W. T. Davison, M.D.
1108 Military St., Port Huron
Force, Eva Dawn.....E. C. Sites, M.D.
1209 Tenth St., Port Huron
Gillow, Mrs. Gretta.....R. S. Bailey, M.D.
400 Seventh St., Port Huron
Hall, Mrs. Julia.....C. A. Ludwig, M.D.
916 Seventh St., Port Huron
Harris, Mrs. Rosemary.....Port Huron Hospital
1209 Willow St., Port Huron
Lavere, Mrs. Rowena.....J. F. Beer, M.D.
104 N. Riverside, St. Clair
Moses, Mrs. Patsy Lou.....F. E. Ludig, M.D.
916 Seventh St., Port Huron
Patterson, Mrs. Una.....D. W. Patterson, M.D.
622 Huron Ave., Port Huron
Potter, Janice.....J. A. Engels, M.D.
69311 Main St., Richmond
Roth (Dickie), Mrs. Kathryn.....J. C. S. Battley, M.D.
1216 Sixth St., Port Huron
Stilwell, Mrs. Shirley.....J. A. Engels, M.D.
69311 Main St., Port Huron
Suerwier, Donna.....J. D. Cantwell, M.D.
M. Chafty, M.D.
619 River St., Port Huron
Tepper, Mrs. Ina.....J. L. Sanderson, M.D.
515 Pine St., Port Huron
Vincent, Mrs. Beverly.....N. G. Douvas, M.D.
311 Pine St., Port Huron
Willey, Mrs. Betty Lou.....W. T. Davison, M.D.
1108 Military St., Port Huron

SHIAWASSEE COUNTY
Number of Members, 20

Belsito, Mrs. Esther.....E. M. Chipman, M.D.
502 W. Williams, Owosso
Capitan, Mrs. Doris.....J. H. Graves, M.D.
511 W. Main St., Owosso
Caruso, Isabella.....R. C. Pochert, M.D.
Matthews Bldg., Owosso
Cooper, Mrs. Elna.....P. Sauer, M.D.
Medical Group, Owosso
Gallop, Mrs. Viola.....J. H. Graves, M.D.
511 W. Main, Owosso
Harkins, Mrs. Betty.....Owosso Medical Group
113 E. Williams, Owosso
Iverson, Mrs. Mary Ann.....R. L. Phillips, M.D.
Matthews Bldg., Owosso
Jenks, Eleanor.....R. C. Brown, M.D.
113 E. Williams, Owosso
Kanouse, Mrs. Barbara.....R. V. Harroun, M.D.
Mathews Bldg., Owosso
Lahmann, Mrs. Maxine.....Owosso Medical Group
113 E. Williams, Owosso
Mollema, Mrs. Bernice.....Owosso Medical Group
113 E. Williams, Owosso
Monroe, Mrs. Dorothy.....J. S. McGeehan, M.D.
Matthews Bldg., Owosso
Neff, Mrs. June.....Owosso Medical Group
113 E. Williams, Owosso
Nelson, Mrs. Clarice.....Owosso Medical Group
113 E. Williams, Owosso
Skinner, Mrs. Mildred.....J. E. Harroun, M.D.
Matthews Bldg., Owosso
Scriven, Mrs. Ada.....E. S. Austin, M.D.
319 E. Exchange, Owosso
Tichner, Mrs. Alaine.....Owosso Medical Group
113 E. Williams, Owosso
Van Dexarr, Mrs. Mina.....E. S. Austin, M.D.
319 E. Exchange, Owosso
Walter, Mrs. Faye.....Owosso Medical Group
113 E. Williams, Owosso
Wood, Mrs. Elizabeth.....Owosso Medical Group
113 E. Williams, Owosso

TRI-COUNTY (GRAND TRAVERSE-LEELANAW-BENEZIE COUNTIES)

Number of Members, 6

Cole, Mrs. Sonja.....W. W. Cline, M.D.
436 W. Front St., Traverse City
McDonald, Mrs. Georgetta S.....G. E. Stokes, M.D.
1100 Sixth St., Traverse City
Nash, Mrs. Virginia.....A. C. McClay, M.D.
215 S. Madison, Traverse City
Stanek, Florence.....J. W. Hall, M.D.
1100 Sixth St., Traverse City
Turkelson, Mrs. Loretta.....S. L. Michael, M.D.
604 Ottawa St., Elk Rapids
Ward, Mrs. Loretta A.....I. H. Zielke, M.D.
212 E. Front St., Traverse City

VAN BUREN COUNTY

Number of Members, 22

Brown, Mrs. Kathryn.....Paw Paw Medical Group
305 Oak St., Paw Paw
Bleau, Mrs. Camilla.....A. H. Steele, M.D.
221 Oak St., Paw Paw
Brucks, Mrs. Neva E.....P. W. Sundin, M.D.
119 Pine St., Decatur
Canham, Mrs. Jessie.....A. E. Parks, M.D.
148 N. Main St., Lawson
Cornish, Mrs. Lucille.....Wm. R. Young, M.D.
109 Union St., Lawton
Cortright, Sally.....M. J. Urist, M.D.
432 Phoenix St., South Haven
Dannison, Mrs. Cecile.....B. Diephus, M.D.
511 Huron St., South Haven
Goodell, Mrs. Louise M.....P. W. Sundin, M.D.
119 Pine St., Decatur
Hinz, Mrs. Martha.....M. W. Buckborough, M.D.
B. Diephus, M.D.
511 Huron St., South Haven
Huey, Mrs. Grace.....C. TenHouten, M.D.
215 N. Kalamazoo St., Paw Paw
Jewett, Mrs. Maxine.....Paw Paw Medical Group
305 Oak St., Paw Paw
Keeney, Mrs. Ruth.....E. Terwilliger, M.D.
326 Michigan Ave., South Haven
Leonard, Mrs. Stephanie.....Paw Paw Medical Group
305 Oak St., Paw Paw
Lennig, Mrs. Frieda.....J. Itzen, M.D.
J. Kleber, M.D.
311 Center St., South Haven
Magyer, Mrs. Betty.....A. H. Steele, M.D.
221 Oak St., Paw Paw
Novy, Mrs. Ethel.....J. Itzen, M.D.
J. Kleber, M.D.
311 Center St., South Haven
Peak, Mrs. Vera.....J. Cooper, M.D.
314 Division St., Bangor
Schroyer, Lois.....J. Cooper, M.D.
314 Division St., Bangor
Slee, Mrs. Grace.....M. W. Buckborough, M.D.
B. Diephus, M.D.
511 Huron St., South Haven
TenHouten, Mrs. Catherine.....C. TenHouten, M.D.
215 N. Kalamazoo St., Paw Paw
Walker, Mrs. Bess.....A. E. Parks, M.D.
148 N. Main St., Lawton
Warmbold, Mrs. Alberta.....C. TenHouten, M.D.
215 N. Kalamazoo St., Paw Paw

WASHTENAW COUNTY

Number of Members, 45

Affleck, May.....C. G. Child, III, M.D.
University Hospital, Ann Arbor
Arrick, Mrs. Marie.....B. C. Payne, M.D.
202 Mich. Theatre Bldg., Ann Arbor
Austin, Mrs. Patricia (Palmer).....R. I. Goldsmith, M.D.
216 Mich. Theatre Bldg., Ann Arbor
Behnke, Mrs. Jean.....W. O. Umiker, M.D.
V. A. Hospital, Ann Arbor
Benz, Mrs. Elma.....J. Sheldon, M.D.
J. McLean, M.D.
U. of M. Medical Center, Ann Arbor
Chantelois, Shirley.....R. T. Douthat, M.D.
205 S. Davenport, Saline
Clark, Mrs. Jessie.....F. B. Williamson, M.D.
319 W. Michigan, Ypsilanti
Cocco, Melia.....G. S. Sayre, M.D.
523 W. Cross, Ypsilanti
Cross, Mrs. Annie.....D. W. Martin, M.D.
207 Savings Bank Bldg., Ypsilanti
Densmore, Mrs. Winifred.....J. Sheldon, M.D.
J. McLean, M.D.
U. of M. Medical Center, Ann Arbor
Ehman, Mavis.....E. R. Harrell, M.D.
U. of M. Medical Center, Ann Arbor
Elliott, Mrs. Lillian.....F. B. Fralick, M.D.
U. of M. Medical Center, Ann Arbor
Fisher, Doris.....C. J. Westover, M.D.
922 W. A. A. Trail, Plymouth
Goldsmith, Hazeldene.....H. H. Cummings, M.D.
326 N. Ingalls St., Ann Arbor
Gubachy, Mrs. Shirley.....L. E. Himler, M.D.
U. of M. Medical Center, Ann Arbor
4438 Jackson Rd., Box 65, Ann Arbor
Hagerman, Mrs. Edythe.....G. W. Hagerman, M.D.
321 N. Ingalls, Ann Arbor
Henderson, Mrs. Lucille.....P. F. Gerigh, M.D.
Saline
Hildinger, Mrs. Elinor.....H. R. Williams, M.D.
N. L. Banghart, M.D.
1950 Manchester Rd., Ann Arbor
Hughes, Helen.....Wm. A. Barss, M.D.
525 W. Cross, Ypsilanti
Johnson, Mrs. Lucille.....H. K. Ransom, M.D.
U. of M. Medical Center, Ann Arbor
Keller, Hazel.....H. Shoecraft, M.D.
326 E. Libert St., Ann Arbor
Larmee, Suzanne.....J. R. McWilliams, M.D.
408 First Nat'l. Bank Bldg., Ann Arbor
Malloy, Mrs. Mildred.....N. F. Miller, M.D.
Women's Hospital, Ann Arbor
Mayer, Mrs. Flora.....L. D. Henry, M.D.
706 W. Huron St., Ann Arbor

McCarn, Nellie.....H. K. Schock, M.D.
V. A. Hospital, Ann Arbor
Mickelson, Mrs. Helen.....R. M. DeJong, M.D.
U. of M. Medical Center, Ann Arbor
Moore, Mrs. Margaret.....Wm. R. Rekshan, M.D.
2015 Manchester Rd., Ann Arbor
Mullaly, Mrs. Jane.....C. J. Tupper, M.D.
U. of M. Health Service, Ann Arbor
Naylor, Mrs. Marion.....R. M. Nesbit, M.D.
U. of M. Medical Center, Ann Arbor
Phinney, Dorothy.....R. K. Ratliff, M.D.
326 N. Ingalls, Ann Arbor
Peck, Betty Ann.....C. Carroll, M.D.
T. McEachern, M.D.
1130 Hill, Ann Arbor
Polsdorfer, Mrs. Marcia.....R. Craig Barlow, M.D.
St. Joseph Hospital, Ann Arbor
Ritchie, Dorothy.....C. J. Westover, M.D.
982 W. A. A. Trail, Ann Arbor
Scott, Mrs. Dorothy.....Miller, M.D.
T. Evens, M.D.
G. Morley, M.D.
Women's Hospital, Ann Arbor
Schilling, Mrs. Doris.....R. O. Dingman, M.D.
221 N. Ingalls, Ann Arbor
Schrader, Mrs. Judy.....Wm. R. Rekshan, M.D.
2015 Manchester Rd., Ann Arbor
Shoenfield, Mrs. Kate .....F. A. Coller, M.D.
St. Joseph Hospital, Ann Arbor
Storti, Patricia.....A. C. Curtis, M.D.
2181 O P D, U. of M. Medical Center,
Ann Arbor
Trimm, Mrs. Ruth.....R. C. Schneider, M.D.
Rm. C 5135 U. of M. Medical Center,
Ann Arbor
Van Assche, Margaret.....J. J. Woods, M.D.
19 N. Washington, Ypsilanti
Wallace, Mrs. Fae.....J. J. Woods, M.D.
19 N. Washington, Ypsilanti
Weatherwaz, Marie.....F. B. Fralick, M.D.
U. of M. Medical Center, Ann Arbor
Weller, Mrs. Iris.....O. Sirola, M.D.
E. M. U. Health, Center, Ypsilanti
Wiltse, Betty Jane.....S. T. Harris, M.D.
27 S. Prospect, Ypsilanti
Wolfe, Mrs. Irma.....R. M. Nesbit, M.D.
U. of M. Medical Center, Ann Arbor

Michigan State Medical Society

Constitution

ARTICLE I—NAME

Section 1. The name of this organization shall be The Michigan State Medical Society.

ARTICLE II—COMPONENT COUNTY SOCIETIES

Section 1. Component County Societies.

Component County Societies shall consist of those County Medical Societies which hold charters from this State Medical Society.

Sec. 2. Geographical Scope.

Only one component County Society shall be chartered in any one county of the State; provided, however, when in the judgment of the House of Delegates it is deemed to be to the best interests of this Society, a charter may be granted to a component County Society comprising two or more counties.

ARTICLE III—PURPOSES

Section 1. To bring into one organization the Doctors of Medicine of this State of Michigan, and through it and other similar societies of other states to form and maintain the American Medical Association.

Sec. 2. To maintain a program of educational service to the public on matters of health and hygiene.

Sec. 3. To encourage among members of the medical profession the interchange of views on all phases of professional advancement and thus better to equip each member of the profession to serve society and promote the public health.

Sec. 4. To maintain a program of scientific education for the members of The Society keyed to the constantly developing discoveries in the field of medicine; and to foster, encourage and co-ordinate postgraduate facilities for the medical profession as a whole.

Sec. 5. To disseminate advances in medical research among the profession generally, by the issuance of scientific publications.

Sec. 6. To maintain and to advance the standards of medical practice in this State with respect to the highest concepts of ethics.

Sec. 7. To acquire and hold such real and personal property as may be necessary for the full and proper execution of the corporate purposes as detailed herein.

Sec. 8. To carry on such organization, functions and activities as are deemed necessary to accomplish effectively the above purposes; provided, however, that the Society shall engage in no activities that cannot be construed as relevant, incidental or necessary to its charitable, educational and scientific purposes.

ARTICLE IV—DIVISIONS

Section 1. This Society as a State unit of the American Medical Association, and as the State expression of the County Societies of Michigan, shall have three major divisions.

1. The Society as a whole, as when it meets in Annual Session.
2. The Scientific Assembly with its subordinate or related bodies.
3. The House of Delegates with its subordinate or related bodies.

ARTICLE V—THE SOCIETY AS A WHOLE

Section 1. The Society as a whole shall hold an Annual Session at such time and place and of such duration as the House of Delegates may determine. This power may be delegated to The Council or to the Executive Committee of The Council by the House of Delegates.

ARTICLE VI—SCIENTIFIC ASSEMBLY

Section 1. The Scientific Assembly of this Society is the convocation of its members for the presentation and discussion of subjects pertaining to the science and art of medicine, its allied specialties and the problems of public health conservation.

ARTICLE VII—HOUSE OF DELEGATES

Section 1. The House of Delegates shall be the legislative body of the Michigan State Medical Society and shall consist of Delegates elected by component County Societies and Delegates-at-Large, as prescribed by the Bylaws.

ARTICLE VIII—MEMBERS

Section 1. This Society shall consist of active members, honorary members, associate members, retired members, life members and military members, elected in accordance with the Bylaws.

ARTICLE IX—OFFICERS AND ELECTED REPRESENTATIVES

Section 1. The officers of this Society shall be a President; a President-Elect; a Treasurer; a Secretary; a Speaker and a Vice Speaker of The House of Delegates; and Councilors.

Sec. 2. The elected representatives of this Society shall be the Delegates and the Alternate Delegates to the House of Delegates of the American Medical Association.

ARTICLE X—THE COUNCIL

Section 1. The Council shall be the Executive Body of the Society. It shall consist of one Councilor from each Councilor District, the President, President-Elect, immediate Past President, Speaker and Vice Speaker of the House of Delegates with the Secretary and the Treasurer, the last two being elected by the foregoing. It shall have the custody and entire control of all funds and property of the Society and shall act for the Society as a whole and for The House of Delegates between sessions.

Sec. 2. The Executive Committee of The Council shall consist of its Chairman, Vice Chairman, Chairman of the Finance Committee, Chairman of the County Societies Committee, Chairman of the Publication Committee, President, President-Elect, Secretary, Treasurer, Speaker and Vice Speaker of the House of Delegates. It shall act for the Society as a whole and for the House of Delegates between sessions of The Council, except that a policy established by the House of Delegates or by The Council shall not be changed.

ARTICLE XI—FUNDS AND EXPENSES

Section 1. Funds for meeting the expenses of the Society shall be raised by annual dues, special assessments and voluntary contributions.

Sec. 2. Annual membership dues and assessments shall be fixed by the House of Delegates.

ARTICLE XII—AMENDMENTS

Section 1. The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates seated at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been published at least once during the year in The Journal of the Society, or sent officially to each component County Society at least two months before the meeting at which final action is to be taken.

Sec. 2. This Constitution or any amendment thereto shall become effective immediately upon its adoption.

Bylaws

CHAPTER 1—COMPONENT COUNTY SOCIETIES

Section 1. The charter of each component County Society shall require that each of the provisions of the Constitution and Bylaws of the Michigan State Medical Society, together with each amendment to either thereof, hereafter adopted, in so far as the same is applicable, shall be an integral part of the Constitution and Bylaws of the component County Society to which a charter is issued and shall in no way be inconsistent with the Constitution and Bylaws of the Michigan State Medical Society. Each charter shall be authorized by the House of Delegates and signed by the President and the Secretary of this Michigan State Medical Society.

Sec. 2. The House of Delegates is empowered to revoke the charter of any component County Society whenever it finds that such Society has materially breached any of the provisions of the Constitution or Bylaws of this State Society or has failed to function within the expressed spirit and purpose of this State Society to such an extent that revocation of charter is compatible with the best interests of this State Society. Petition for the revocation of charter of any component County Society may be filed with The Council by a Councilor of the district within which each Society is located, or by any three members of The Council of this State Society or by the President of this State Society. Such petition shall be in writing and set forth with reasonable particularity the matters complained of and upon which the petition is founded. A copy of such petition together with written notice of the time and place of hearing on the petition shall be served on the affected component County Society by registered mail, return receipt requested, not less than 60 days before the date of such hearing. The affected component County Society may, within 30 days after service upon it of copy of the petition, file with The Council by registered mail, return receipt requested, a written answer thereto. The Council shall afford the affected component County Society a fair hearing of the matters complained of and a suitable opportunity to present its defense. The component County Society may be represented by legal counsel. Written arguments may be filed on behalf of the affected component County Society and by the petitioner. Stenographic notes shall be made of the entire proceedings on such hearing and a complete record shall be prepared, which record shall consist of the petition, answer, testimony, exhibits, written arguments and other pertinent matter. The Council shall make its decision based on the records, setting forth in writing its finding of facts, conclusions and reasons therefor. If two-thirds of the members of The Council do not concur in the conclusion that the charter of the affected component County Society should be revoked, the petition shall be deemed dismissed and the proceedings ended. If two-thirds of the members of The Council concur in the conclusion that the charter of the affected component County Society should be revoked, the Chairman of The Council shall transmit to the House of Delegates a report, consisting of the decision of The Council with all records annexed, and shall serve a copy thereof on the affected component County Society. The House of Delegates shall at the next regular or special session thereof following the transmittal of such report, consider and take such action on the report as it may deem proper. In case the House of Delegates desires further proofs in relation to the issues involved, it may remand the matter to The Council for further hearing and report. The action of the House of Delegates on the report of The Council shall be the final decision with reference to the revocation of the charter of a component County Society. Provided, that the component County Society, if it feels aggrieved by the decision of the House of Delegates, may, within six months, appeal to the Judicial Council of the American Medical Association, whose opinion shall be final.

CHAPTER 2—REGULATION OF MEMBERSHIP

Section 1. Admission to membership of any component county society is not a matter of right, but one of privilege, to be accorded or withheld in the sole discretion of such society. Every component county society may determine the manner of electing its members and shall be the sole judge of the qualifications of applicants for membership thereof.

Sec. 2. A Doctor of Medicine whose principal location of practice is near a county line may hold his membership in that component County Society most convenient for him to attend, on permission of The Council of the Michigan State Medical Society.

Sec. 3. Each component County Society shall have general direction of the affairs of the profession in the county, and its influence shall be exerted constantly for bettering the scientific, the moral and material conditions of every Doctor of Medicine in the county; systematic effort shall be made by each member and by the component County Society as a whole to increase the membership until it embraces every eligible Doctor of Medicine in the county.

Sec. 4. The Secretary of each component County Society shall keep a roster of its members and if practicable a list of non-affiliated Doctors of Medicine in the county, and other Doctors of Medicine, such as commissioned officers of the Navy, Army, and Public Health Service, in which shall be shown the full name, the address, the college and date of graduation, the date of license to practice in this State, and such other information as may be deemed necessary.

Sec. 5. Each member of a component County Society, who is in good standing, shall be privileged to attend each meeting and take part in all the proceedings and shall be eligible to any office within the gift of the Society except as otherwise provided.

CHAPTER 3—ARREARS IN DUES

Section 1. Any member in arrears for dues in the amount for one year may regain membership by paying up all back dues. Any member in arrears for more than one year may regain membership by paying all back dues or by being elected again to membership, at the option of the Component County Society.

Sec. 2. For the purpose of determining the dues for new members only, the fiscal year of the Michigan State Medical Society shall be divided into four three-month periods. New members shall pay adjusted annual dues and assessments for the unexpired quarterly periods of that year. Such new members shall not be entitled to membership benefits until their election to membership has been duly reported to the Secretary of the State Society and such benefits shall not cover any period prior to their becoming members in good standing.

CHAPTER 4—TRANSFER OF MEMBERSHIP

Section 1. Transfer of membership from one component County Society to another, occasioned by a change in location, shall be effectuated in the following manner: The member who wishes such transfer shall make application to the County Society which he wishes to join, and tendering payment of dues for the remainder of the current year, calculated to the nearest quarter.

Sec. 2. The Secretary of the component County Society to which application is made shall request certification of standing from the component County Society in which membership is held. Upon receiving such request, The Secretary of the latter society shall supply certification of good standing, provided the following requirements have been met:

(a) All component County Society dues and assessments shall have been paid for the calendar year previous to the year in which application for transfer is made.

(b) Full State Society dues and assessments shall have been paid for the year in which application for transfer is made.

(c) Component County Society dues and assessments shall have been paid to cover that portion of the year in which application for transfer is made, the time being calculated to the nearest quarter.

(d) The member shall not be under suspension or facing charges of unethical conduct.

Sec. 3. (a) In case the component County Society dues have been paid in full for the year, and certification of good standing is being issued, the Secretary of that component County Society shall refund component County Society dues represented by the unexpired portion of the year, calculated to the nearest quarter.

(b) Upon receipt of certification of good standing, and favorable action by the component County Society to which application has been made, the transfer of membership shall be in effect.

Sec. 4. Resignation for transfer of membership to another State Society shall be effectuated in the following manner:

Any member in good standing, not facing charges of unethical conduct, whose State and component County Society dues and assessments are not in arrears, and who has moved his principal location to another State, may tender his resignation, which shall be effective at the beginning of the next quarter. Such resignation shall be transmitted to the Secretary of the Michigan State Medical Society, who shall give the departing member certification of good standing.

Provided the portion of the calendar year following such resignation or death is not less than one-quarter, the Secretaries of the State and component County Societies shall refund any dues and assessments already paid for the remainder of the year, calculated to the nearest quarter.

CHAPTER 5—MEMBERSHIP AND CLASSIFICATION OF MEMBERSHIP

Section 1. Active Member—Active Members shall comprise all the active members of component County Societies. To be eligible for active membership in any component County Society, a Doctor of Medicine must hold an unrevoked license to practice medicine, surgery and midwifery by authority of the Michigan State Board of Registration in Medicine, and comply with all other provisions of this Constitution and Bylaws.

Sec. 2. Honorary Member—Component County Societies may elect as an Honorary Member any person distinguished for his services or attainments in medicine or the allied sciences, or who has rendered other services of unusual value to organized medicine or the medical profession. Upon recommendation of a component County Society, the House of Delegates may elect such a person as Honorary Member of the State Society. An Honorary Member shall pay no dues to the State Society and shall be without right to vote or hold office in either component County or State Society.

Sec. 3. Associate Member—Component County Societies may elect as an Associate Member:

(a) Any person not a member of the profession but engaged in scientific or professional pursuits whose principles and ethics are consonant with those of this State Society.

(b) An intern serving the first year in any approved hospital, an intern of longer standing, a resident physician in training, and a teaching fellow not engaged in private practice, but not after six years from the receipt of first medical degree (M.D. or M.B.); provided his training has not been interrupted by exigencies of War Service or by totally incapacitating illness. Such intern, resident or teaching fellow may become an Associate Member of the Michigan State Medical Society without action of the House of Delegates provided he has been certified to the Michigan State Medical Society through formal application to the Michigan State Medical Society Secretary by his component County Medical Society.

(c) A Doctor of Medicine, resident of the State of Michigan, for the period of time he is in active Military Service of the United States previous to his engaging in active practice.

(d) A Doctor of Medicine not engaging in any phase of medical practice.

(e) A commissioned medical officer of the United States Army, Navy, Public Health Service or physician employed by the Veterans Administration on duty in this State, who is not engaged in private practice of medicine, not to exceed two years.

(f) An Active Member, by transfer, for the period of time he is temporarily out of active practice on account of protracted illness, provided his dues are paid for the year previous to the onset of illness.

(g) An Active Member, by transfer, for the period of one year while he is temporarily out of practice on account of postgraduate medical studies, provided his membership dues are paid to the end of the preceding calendar year. This may be renewed upon petition to The Council at its discretion.

Upon recommendation of a component County Society, the House of Delegates may elect such a person as an Associate Member of this State Society. An As-

sociate Member shall not pay dues to this State Society and shall not have the right to vote, nor hold office in either component County or State Society. Component County Societies may require any Associate Member to pay certain local dues, out of which THE JOURNAL of the Michigan State Medical Society subscription is to be paid to the State Society for which each such Associate Member shall receive THE JOURNAL of the Michigan State Medical Society.

Sec. 4. Retired Member—A member who has maintained membership in a component County Society of this State Society for a period of ten or more years, and having retired from practice, may be transferred to the retired member's roster, provided his membership dues are paid to the end of the preceding calendar year. He shall be entitled to receive THE JOURNAL of the Michigan State Medical Society at such rates as The Council may determine. He shall have the right to vote and hold office.

Sec. 5. Non-Resident Member—Component County Societies may elect as a Non-Resident Member any Doctor of Medicine residing and practicing outside of The County who is a member in good standing of his own component County Society. A Non-Resident Member shall not have the right to vote or hold office.

Sec. 6. Life Member—A Doctor of Medicine who has been a member of the Michigan State Medical Society for a minimum of five years and who has attained the age of seventy years or has been in practice fifty years and has maintained an active membership in good standing for twenty-five years in any constituent state society of the American Medical Association, with dues paid for the previous calendar year, may, upon his application and recommendation of his component county society, be transferred to the Life Members' Roster. He shall have the right to vote and hold office but shall pay no dues to the State Society. Requests for such transfer shall be accompanied by certification of the Secretary of the State Society as to years of membership in good standing. He shall be entitled to receive THE JOURNAL of the Michigan State Medical Society at such rates as The Council may determine.

Sec. 7 Military Members. Any active member in good standing who serves on active duty in the military forces of the United States during a war or similar national emergency may be transferred to the Military Membership roster for the period of time he is in Service. A Military Member shall not be required to pay state dues and assessments during the period of his Service and for the balance of the year in which he is separated from Military Service provided that this remission of post-service dues and assessments shall not be less than six months, or during the years he may be totally disabled immediately following such duty.

Sec. 8. For Retired, or Life Membership, the Component County Society of such members shall make request for certification, in writing, to the Secretary of the State Society thirty days in advance of an Annual Session of The House of Delegates. Requests for transfer shall be accompanied by certification of the Secretary of the State Society, as to years of practice and years of membership in good standing. Transfers shall be by election in the House of Delegates.

Sec. 9. Any change in membership status shall be effected by resolution presented in triplicate before the annual session of the House of Delegates after previous certification by the secretaries of the county and state societies.

CHAPTER 6—CONDUCT AND DISCIPLINE OF MEMBERS

Sec. 1. *Standards of Conduct.* It is the duty of every member of this society and each of its component county societies to conduct himself both professionally and personally in conformity with the high standards imposed on doctors of medicine as a condition of continued membership therein. Such standards include, but are not limited to, the Principles of Medical Ethics which have been and may be from time to time hereafter adopted by the American Medical Association and as interpreted by the Judicial Council thereof.

Sec. 2. *Ground for Discipline.* The conduct of a member of this or any of its component county societies which is contrary to the standards prescribed in this chapter shall be ground for discipline, whether or not the act or omission occurred in the course of a physician-patient relationship. Without limitation of the foregoing, any of the following shall also be ground for discipline:

(a) Unprofessional and dishonest conduct as defined by Act 237 of Michigan Public Acts of 1899, as amended.

(b) Conviction of a felony under the laws of any state or of the United States of America.

(c) Revocation or suspension of license to practice medicine.

(d) Violation or disregard of the constitution, by-laws, principles, rules, regulations or orders of this society, or of the member's component county society, or of the American Medical Association.

(e) Defaming or otherwise unjustly reflecting on the integrity, character or professional performance of a fellow member.

(f) Any conduct which is prejudicial to or tends to expose the medical profession or this society or a component county society to contempt or reproach, or which is in anywise contrary to ethics, honesty or good morals.

Sec. 3. *Discipline-Definitions and Purpose.* Discipline as used in this chapter shall include reprimand, suspension and expulsion. Any such discipline is not punishment for wrongdoing but is intended solely as a measure necessary to maintain the dignity, integrity, purposes and high principles of this society and of its component county societies.

Sec. 4. *Authority to Discipline.* A component county society may discipline any of its members on any of the grounds and in the manner set forth in this chapter; provided, that every member of this society and of any component county society against whom disciplinary action is proposed or taken shall be accorded the benefit of the procedures in this chapter prescribed, any provisions of the constitution or by-laws of any component county society to the contrary notwithstanding. The expulsion or suspension of any member from a component county society shall be subject, however, to the right of appeal to and review by The Council of the Michigan State Medical Society and the Judicial Council of the American Medical Association as hereinafter provided. Any component county society which has more than one hundred fifty active members may by appropriate provisions contained in its constitution or by-laws delegate its authority and power to discipline any of its members to the governing board of such society, in which event, all of the functions, duties and powers of a component county society as set forth in this chapter shall be exercised and carried out by such governing boards in like manner and on the same conditions as prescribed for a component county society. Unless otherwise specifically provided by the constitution or bylaws of such component society, any order of expulsion or suspension made by such governing board shall be subject to the approval of the component society in the same manner as may be provided for the approval of any other report of such governing board.

Sec. 5. *Ethics Committee.* Every component county society shall have a standing committee designated the

Ethics Committee, charged with duties and powers concerning the maintenance of standards of conduct and discipline of members, including the duties and powers specifically set forth in this chapter. Whenever any matter of alleged misconduct is referred to an ethics committee, such committee shall have the right to conduct investigations and hearings thereon, both informal and formal, and to make findings of fact and recommendations for discipline.

Sec. 6. *Request for Investigations.* Investigative procedures shall be initiated by a request of an active member or committee of the society for the investigation of misconduct alleged to have been committed by a member of any component county society. All such requests shall be in writing, signed by one or more active members of the same component county society, filed in duplicate with the component county society, and as soon as may be shall be referred to the ethics commitee of such society. Each request shall contain a brief statement of the details of each act of alleged misconduct and the approximate time and place thereof. Before any such request and statement shall be considered by any such ethics committee, a copy thereof shall be mailed to the respondent at his last known address by registered or certified mail. It shall be the duty of the respondent, within fifteen days after the receipt of such copy, to make a full and fair disclosure in writing of all material facts and circumstances pertaining to his conduct in relation to the matters set forth in such statement. Such written disclosure shall be mailed to the secretary of the component county society by registered or certified mail. The deliberate failure to make such disclosure or any knowing misrepresentation or concealment of any such facts or circumstances by the respondent shall be ground for discipline.

Sec. 7. *Investigations-Reprimand-Dismissal.* The ethics committee shall make an informal investigation of the matters set forth in any such request and statement. On the conclusion of such investigation, the results thereof shall be informally considered by the committee at a meeting thereof. It shall be the duty of the respondent to attend such meeting on request, and to answer fully and fairly all questions pertaining to his conduct that may be put to him by any member of the committee. If the ethics committee decides that there is no ground for discipline, the committee may authorize the dismissal of the matter. If, in the judgment of the committee, the material facts disclosed by the investigation are true and are sufficient to warrant only a reprimand, the ethics committee may forthwith administer such reprimand without a formal complaint, unless a formal hearing is demanded by the respondent. It shall be the duty of the ethics committee to report such dismissal or reprimand in writing to the component county society, together with the reasons thereof.

Sec. 8. *Formal Complaint and Notice of Hearing.* If the ethics committee finds there is reasonable cause to believe that the respondent is guilty of misconduct warranting suspension or expulsion from membership, or if the respondent demands a formal hearing, a formal complaint setting forth the facts of the alleged misconduct shall be prepared by the ethics committee and subscribed by the chairman or vice-chairman thereof. A copy of such complaint shall be filed with the component county society. Thereupon, it shall be the duty of the ethics committee or its chairman to fix the time and place for a formal hearing thereon. A written notice of such hearing, together with a copy of the formal complaint, shall be served on the respondent by registered or certified mail not less than thirty days before the date of such hearing. The notice of hearing may be signed on behalf of the committee by its chairman or any member thereof. The giving of such notice shall be conclusive evidence of the finding of reasonable cause to believe that the respondent is guilty of the alleged misconduct.

Sec. 9. *Answer and Formal Hearing.* It shall be the duty of the respondent to file an answer to the formal complaint. Such answer shall be in writing, signed by the respondent, and filed with the ethics committee within fifteen days after service of the copy of formal complaint. The answer shall admit or deny each material allegation contained in the complaint, and shall set forth any special defenses which the respondent claims to have. If the answer is not filed within the time hereby limited, the complaint may be taken as confessed. It shall be the duty of the respondent to appear before the ethics committee in person at the time and place specified in such notice. At such formal hearing, it shall be the duty of the respondent to answer fully and fairly all questions pertaining to his conduct which may be put to him by any member of the committee of the component county society. Formal hearings shall be conducted fairly, but not necessarily in accordance with all rules governing court trials. A stenographic record shall be made of the proceedings at such hearing.

Sec. 10. *Findings and Report.* If upon formal hearing the ethics committee finds that the charges of misconduct are not established by a preponderance of the evidence, the committee shall dismiss the complaint and shall so report to the component county society. If the committee finds that the charges of misconduct or any of them are established by a preponderance of evidence and are such as to warrant discipline by way of a reprimand, the committee shall administer such reprimand, and shall make a written report thereof, together with its findings of fact, to the component county society. If the committee finds that the charges of misconduct or any of them are established by a preponderance of evidence and are such as to warrant suspension or expulsion from membership by action of the component county society, the committee shall make a written report of the proceedings had before the committee, and shall include in such report a certified transcript of the evidence, including copies of all documents taken in proof, a summary statement of all previous misconducts for which the respondent has been disciplined, and the committee's findings of fact and recommendations for discipline. Every such report shall be signed by not fewer than a majority of the members of the ethics committee, and shall be filed with the component county society.

Sec. 11. *Action on Report—Additional Testimony.* Whenever an ethics committee files a report with its component county society recommending suspension or expulsion as herein provided, the respondent shall be served with a copy of the committee's findings of fact and recommendations so filed, not less than twenty days before the meeting of the component county society at which such recommendations are to be considered and acted on, together with a notice of the time and place of such meeting. The respondent may thereupon file with the society not less than ten days before such meeting reasons in writing why the recommendations of the ethics committee should not be adopted. The respondent may also at such meeting appear in person and offer any further reasons why he should not be suspended or expelled from membership; provided, however, that at such meeting no testimony as to any matter of misconduct shall be taken. If it is decided at such meeting that the interests of justice require additional testimony to be taken, the matter shall be rereferred to the ethics committee for such purpose. In such event the ethics committee shall cause such additional testimony to be taken promptly, and shall make a supplemental report thereon, including findings of fact and recommendations based thereon, and shall file the same, together with a certified transcript of such additional testimony with the component county society. A copy of the findings of fact and recommendations contained in the supplemental report shall be served on the respondent as required in the case of an original report, and thereafter the same procedures shall be

followed as in this section provided in relation to an original report.

Sec. 12. *Action by Society.* Following the filing of any such report of an ethics committee recommending suspension or expulsion, the component county society shall, at a regular meeting thereof, or at a special meeting called for such purpose, consider and act upon the report and recommendation of the ethics committee. Suspension or expulsion from membership shall require the affirmative vote of not less than two-thirds of members present at any such meeting and entitled to vote thereat, but not including the respondent, who shall have no right to vote on the question. If any measure for discipline is adopted by a component county society, an appropriate order in accordance therewith shall be signed by the president and secretary of such society and a copy thereof served on the respondent and on the Michigan State Medical Society.

Sec. 13. *Finality and Effectiveness of Order.* No order of suspension or expulsion from membership shall be final or effective until the respondent shall have been given the opportunity to exhaust his remedy of appeal and review in accordance with the provisions of this chapter.

Sec. 14. *Appeal Procedure.* Any member deeming himself aggrieved by an order of suspension or expulsion may appeal to The Council of the Michigan State Medical Society. Notice of such appeal shall be in writing, signed by the appellant and shall set forth specific reasons for his appeal. The notice shall be served on The Council of the Michigan State Medical Society and on the appellant's component county society by registered or certified mail, addressed to the respective secretaries thereof. Unless notice of appeal is so served within fifteen days following the service on the member of a copy of the order of the suspension or expulsion as herein above provided, such member's right of appeal and review shall be conclusively treated as having been waived, and the order of suspension or expulsion shall thereupon become final and effective. On receiving notice of appeal, the component county society shall forward to The Council of the Michigan State Medical Society the complete record of the matter, including copies of the order appealed from, all reports of the ethics committee, formal complaint, answer, transcript of testimony, exhibits and all other pertinent writings and data on which the order of suspension or expulsion was based. The Council shall thereupon transmit such record, together with notice of appeal, to the Committee on Ethics of the Michigan State Medical Society for consideration, study and report thereon. The Committee on Ethics shall promptly study and review such record on appeal and may request the component county society or the apellant to furnish such further information in writing as the committee deems necessary for the proper and full review of the matter. Written arguments may be filed with the Committee on Ethics by the component county society and the appellant within thirty days following notice of appeal. Upon conclusion of its study and review of the record, the Committee on Ethics shall make a report in writing to The Council of the Michigan State Medical Society, and shall include in such report all its findings concerning the record and the merits of the appeal, and its recommendations in relation thereto. The Council shall after filing of such report review the record on appeal, written arguments and recommendations of the Committee on Ethics and decide by a majority vote to affirm, modify or reverse the order of expulsion or suspension appealed from, or remand the matter for further action by the component county society. A copy of such decision shall be promptly served on the appropriate component county society and on the appellant by registered or certified mail. Unless within twenty days after service on them of a copy of such decision the component county society or the appellant shall take an appeal to the Judicial Council of the American Medical Association, the right to such further appeal and review will be conclusively treated as having been waived, and the decision of The Council of the Michigan State Medical Society shall be final and effective.

Sec. 15. *Appeal to Judicial Council of American Medical Association.* The appellant, if he was a member in good standing of the American Medical Association at the date of his alleged misconduct, may take a final appeal from the decision of The Council of the Michigan State Medical Society to the Judicial Council of the American Medical Association.

Sec. 16. *Exception to Procedures.* Any member of a component county society whose license to practice medicine shall have been revoked or suspended, or who shall have been convicted of a felony in any state or federal court may be summarily expelled from his component county society without benefit of or resort to the procedures prescribed in this chapter. In recognition of the legal right of a person to appeal from such revocations, suspensions or convictions, no such summary expulsion shall be effective until the order revoking or suspending license to practice medicine or the judgment convicting of a felony shall have become final and effective.

Sec. 17. *Effect of Suspension or Expulsion.* Whenever a member of any component county society is suspended or expelled from such society, he shall thereby also stand automatically suspended or expelled from the Michigan State Medical Society.

Sec. 18. *Construction.* Procedures under this chapter of the bylaws shall be as summary as may be reasonable. No investigation or proceeding hereunder shall be held invalid by reason of any non-prejudicial irregularity or for any error not resulting in a miscarriage of justice. The provisions of this chapter shall be liberally construed for the maintenance of the dignity, integrity, purposes and high principles of this society and its component county societies, and shall apply to all pending matters of misconduct as far as may be practicable and to all future matters, notwithstanding the alleged misconduct occurred prior to the adoption of the provisions of this chapter as part of the Bylaws of the Michigan State Medical Society.

CHAPTER 7—GRIEVANCES OF NON-MEMBERS-MEDIATION COMMITTEES

Sec. 1. *Policy.* One of the responsibilities of this Society and of its component county societies is to foster friendly and harmonious relations between the medical profession and the public. To implement such policy, there shall be established within each component county society a standing committee designated as the Mediation Committee. The councillors of the respective districts of the MSMS within which a component county society is situated shall be eligible to membership on such committees.

Sec. 2. *Purposes.* The purposes of such committee shall be:

(a) To afford the public an informal means of making known to the profession any alleged grievance arising from a physician-patient relationship.

(b) To resolve misunderstandings between physician and patient or between the component county society and the public.

(c) To reconcile differences between physician and patient by means of persuasion and explanation.

(d) To assist the ethics committee of its component

county society in maintaining among members high levels of professional deportment.

Sec. 3. *Duties and Powers.* It shall be the duty and authority of such committee to:

(a) Receive, hear, examine, investigate and consider complaints from members of the public arising from a physician-patient relationship.

(b) Adopt rules governing the performance of its functions; provided, such rules are not inconsistent with the applicable provisions of these bylaws.

(c) Invite response and cooperation from any member of its component county society involved in such complaint. The unexcusable failure of a member to respond to and cooperate with the committee shall be deemed misconduct for which discipline may be exacted in the manner provided in Chapter 6 of these bylaws.

(d) Initiate investigative procedures in the manner provided in Chapter 6 of these bylaws whenever the committee has reasonable ground to believe that a member has been guilty of any conduct for which discipline is provided in these bylaws.

(e) Carry out to the best of its ability the declared purposes of such committee within the means hereby specified and limited.

Sec. 4. *Limitation of Powers.* As between the complainant and a member of the component county society, the powers of the committee shall be limited to efforts promoting understanding or agreement between the parties by means of conciliation. The committee shall not act as a trial body for the purpose of rendering decisions or awards as a substitute for the judgment of a court or any other similar purpose. The committee shall have no power to effect discipline or encroach on the function of the ethics committee of its component county society.

CHAPTER 8—GENERAL MEETINGS

Section 1. During each Annual Session the Society shall hold one or more General Meetings. The number and time of these General Meetings shall be determined by The Council of the Michigan State Medical Society. Such General Meetings shall be presided over by the President or in his absence the President-Elect or the Chairman of The Council. One such meeting shall be called "Officers Night." At this meeting called "Officers Night," the report of the House of Delegates shall be rendered.

Sec. 2. The following shall be the items of business:

1. Call to Order.
2. Announcements and reports of the House of Delegates.
3. Retiring President's annual address.
4. Induction into office of incoming President.
5. Introduction of newly elected officers and elected representatives.
6. Special addresses.
7. Resolutions and motions.

Sec. 3. Each registered member at an Annual Session shall have an equal right to participate in the deliberations of a General Meeting and each Active Member, and Life Member so registered shall have the right to vote on pending questions before the General Meeting.

Sec. 4. At any General Session or at any Section Meeting of this State Society, there may be recommended to the House of Delegates or to The Council the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and the public. Such investigations and reports shall not become official action or expression of this State Society until approved by the House of Delegates or The Council.

CHAPTER 9—HOUSE OF DELEGATES

Section 1. Composition—The House of Delegates shall be composed of Members elected by the Component County Societies. Reports having been properly filed with the Secretary of this Society, each component County Society shall be entitled to send to the House of Delegates each year one delegate for each fifty voting members, active, life and retired, and one delegate for each additional major fraction thereof. Any component County Society having less than fifty members shall be entitled to send one delegate.

Sec. 2. Officers of this State Society and members of The Council shall be ex-officio members of The House of Delegates, and, with the exception of the Speaker and Vice Speaker of The House of Delegates, shall be without power to vote in The House of Delegates. The Past President shall be a member at large of The House of Delegates during the first year of Past-Presidency with right to vote and hold office. All other Past-Presidents shall have the privilege of the floor, without the right to vote.

Sec. 3. The House of Delegates shall transact all of the business of this State Society not otherwise specifically provided for; it shall adopt rules and regulations for its own government and for the administration of the affairs of The Society; it shall provide for the organization of Councilor Districts.

Section 4. The House of Delegates shall meet annually at the time and place of the meeting of this State Society as a whole, as when it meets in General Session, and may hold such number of meetings as the House may determine or its business require, recessing from day to day as may be necessary to complete its business and specifying its own time for the holding of its meetings. The House of Delegates may also be called into session at any time by the Speaker upon a two-thirds vote of The Council, or on petition of twenty-five per cent of the delegates. The purpose of such special sessions shall be stated in the notice to call.

Sec. 5. A Delegate must have been a qualified member of this State Society for at least two years preceding election.

Sec. 6. A Delegate once seated shall remain a Delegate throughout the entire session and for one year thereafter until the next Session of this House of Delegates, and his place shall not be taken by any other Delegate or Alternate, provided that in case of emergency the House of Delegates may seat a duly accredited Alternate from his component County Society. Any Delegate-Elect not present to be seated at the hour of call of the first meeting may be replaced by the accredited Alternate next on the list as certified by the Secretary of the component County Society involved.

Sec. 7. The Secretary of component County Societies shall certify to the Secretary of this State Society the names of Delegates and Alternates who shall represent them at any Annual or Special Session. Each component County Society shall elect Alternate Delegates in equal number to the number of Delegates and designate their seniority.

Sec. 8. A quorum of the House of Delegates shall be constituted by not less than 40 per cent of the accredited Delegates, providing that a majority of such quorum shall not come from any one component County Society.

Sec. 9. The officers of the House of Delegates shall

be a Speaker and Vice Speaker. The Secretary of this State Society, elected by The Council, shall be the Secretary of the House of Delegates. The Speaker and Vice Speaker shall be elected by the House of Delegates at the Annual Session. The Speaker of the House of Delegates shall be a member of The Council and of its Executive Committee with right to vote.

Sec. 10. (a) The House of Delegates is the legislative body of this State Society, and shall have authority to adopt and institute such methods and measures as it may deem most sufficient for the upbuilding and establishing of the interest of the profession in Michigan.

(b) It shall concern itself with and advise as to the interests of the profession and of the public in those matters of legislation pertaining to medical education, medical registration, medical laws and public health.

(c) It shall be active in the education of the public in regard to medical research and scientific medicine.

(d) Delegates and Alternate Delegates to the American Medical Association shall be elected in accordance with the regulations of that parent organization and as hereinafter provided. They shall hold office for two years.

At each annual election, candidates for Delegates to the House of Delegates of the American Medical Association shall be nominated in number equal to or greater than the number to be elected that year. Election shall be by ballot. The required number of high candidates shall be declared elected.

In case of a tie vote of high candidates, the winner, or winners, shall be decided by drawing lots; supervised by the Speaker of the House of Delegates; provided, however, that any candidate thus tied shall have the right to a decision by ballot if he requests same.

The number of Alternate Delegates shall equal the number of Delegates. They shall be elected in exactly the same manner after all Delegates have been elected.

Alternate Delegates shall have relative seniority according to the respective number of votes received by them, and such seniority shall be designated at the time of election. Alternate Delegates serving their second year shall hold seniority over those Alternate Delegates serving their first year in office.

Any vacancies caused by failure or inability of any Delegates to attend shall be assigned to Alternate Delegates in order of their seniority as defined in this section.

(e) It shall have the authority to appoint committees, standing or special, from among its members or other doctors not members of the House of Delegates. Such committees will report to the House of Delegates and their members may participate in the debate upon their committees' report, regardless of membership in the House of Delegates.

(f) It shall approve each action and resolution in the name of this State Society before the same shall become effective. Provided, that in the interim, in the presence of necessity for prompt action, The Council or the Executive Committee of The Council is empowered to act on behalf of this State Society.

(g) It shall elect the Councilors upon the nomination of the Delegates of the Councilor District whose Councilor's term expires, as hereinafter provided.

Component county societies of Councilor Districts shall be notified in writing by the Secretary of the State Society 60 days in advance of the Annual Session when a Councilor is to be elected from their District at the expiration of the usual term.

If a vacancy in The Council occurs during an Annual Session of the Michigan State Medical Society, the delegates of the component county societies will be given time in which to conduct a caucus in order to consider nomination(s) for the vacancy.

(h) The House of Delegates shall provide for the division of the scientific work of the Society into appropriate sections adding new and discontinuing old sections. It shall prescribe the rules governing the meetings of these sections and the election of officers.

(i) It shall present a summary of its proceedings at a General Meeting of the Society and publish its minutes in The Journal of the Michigan State Medical Society.

(j) It may have the following reference committees, together with Tellers and Sergeant-at-Arms, appointed by the Speaker of the House and approved by the House of Delegates, and such other reference committees as may be necessary from time to time:

1. Credentials.
2. Reports of Council.
3. Reports of Officers.
4. Reports of Standing Committees.
5. Reports of Special Committees.
6. Constitution and Bylaws
7. Resolutions.
8. Rules and Order of Business.
9. Legislation and Public Relations.
10. Hygiene and Public Health.
11. Executive Session.
12. Medical Service and Prepayment Insurance.
13. Emergency Medical Service.
14. Miscellaneous Business:
    Tellers
    Sergeant-at-Arms

(k) No new business shall be introduced in the last meeting of the House of Delegates without unanimous consent of the Delegates except when presented by The Council. All new business so presented shall require three-fourths affirmative vote for adoption.

(l) Election of officers shall be held at the last meeting of the House of Delegates at the Annual Session. Each nomination shall be made from the floor of the House. In the event of having only one nominee, the candidate may be elected by a viva voce vote. Members elected to office shall take office with the induction of the incoming President, as provided in this Constitution and Bylaws.

(m) Each resolution introduced into the House of Delegates shall be in writing and presented in triplicate to the Secretary, immediately after the Delegate has read the same, and shall be referred to the proper reference committee by the Speaker before action thereon is taken.

(n) Robert's Rules of Order, when not in conflict with this Constitution and Bylaws, shall govern the parliamentary proceedings of the House of Delegates.

CHAPTER 10—THE COUNCIL

Section 1. The Council is the Executive Body of this State Society. It shall determine its own time and place of meeting. It shall hold an Annual Meeting at which

time it shall elect to serve for one year its Chairman, Vice Chairman, a Secretary, Chairman of the Finance Committee, Chairman of the County Societies Committee, and Chairman of the Publication Committee; these with the President, the President-Elect, the Speaker and Vice Speaker of the House of Delegates shall constitute the Executive Committee of The Council.

Sec. 2. Each Councilor shall be the organizer, peace maker and censor for his District. He shall visit each component County Society in his District at least once a year and keep in touch with the activities of the societies constituting his District. He shall make such reports as the Chairman of The Council shall request concerning the condition of the profession in that District.

Sec. 3. Upon written complaint of at least half of the Delegates of the Councilor District involved, presented to the House of Delegates, in regular or special session stating that the Councilor of said District has been remiss in his duties as prescribed above, and has been notified a month previously of this proposed action, the Speaker of the House shall bring the matter before the House of Delegates for consideration. On two-thirds vote of the House of Delegates this office shall be declared vacant and a successor elected.

Sec. 4. It shall make careful inquiry into the condition of the profession in each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such component County Societies as already exist. It shall especially and systematically endeavor to promote friendly intercourse between Doctors of Medicine in the same locality. It shall make every effort to bring each reputable Doctor of Medicine in the State under the Society's influence.

Sec. 5. It shall, upon application, provide and issue charters to component County Societies organized in conformity with this Constitution and Bylaws. It shall revoke such charters when deemed necessary, as provided in this Constitution and Bylaws.

Sec. 6. The Council shall direct and control the publication of The Journal of the Michigan State Medical Society.

Sec. 7. The Council shall elect an Editor of The Journal of the Michigan State Medical Society, and a Treasurer at its annual meeting. They shall take office immediately and serve for a term of one year, or until their successors are elected and have taken office.

Sec. 8. The funds of the Society shall be disbursed only by order or action of The Council. This authority may be delegated to the Executive Committee of The Council by The Council.

Sec. 9. Funds of the Society for investment shall be delivered to the custody of the Treasurer by the Secretary.

Sec. 10. The Council shall provide such headquarters for The Society as may be required to conduct its business properly.

Sec. 11. The Council shall render an Annual Report to the House of Delegates.

Sec. 12. The following County Societies shall constitute the Councilor Districts of the State. Wayne County shall constitute four Councilor Districts without permanent set boundaries within that County.

First District—Wayne

Second District—Clinton, Eaton, Hillsdale, Ingham, Jackson

Third District—Branch, Calhoun, St. Joseph

Fourth District—Allegan, Berrien, Cass, Kalamazoo, Van Buren

Fifth District—Barry, Ionia-Montcalm, Kent, Ottawa

Sixth District—Genesee, Shiawassee

Seventh District—Huron, Sanilac, Lapeer, St. Clair

Eighth District—Gratiot-Isabella-Clare, Midland, Saginaw, Tuscola

Ninth District—Grand Traverse-Leelanau-Benzie, Manistee, Northern Michigan (Antrim, Charlevoix, Cheboygan and Emmet, combined), Wexford-Missaukee

Tenth District—Alpena-Alcona-Presque Isle, Bay-Arenac-Iosco, North Central Counties (Otsego, Montmorency, Crawford, Oscoda, Roscommon, Ogemaw, Gladwin and Kalkaska, combined)

Eleventh District—Mason, Mecosta-Osceola-Lake, Muskegon, Newaygo, Oceana

Twelfth District — Chippewa-Mackinac, Delta-Schoolcraft, Luce, Marquette-Alger

Thirteenth District—Dickinson-Iron, Gogebic, Houghton-Baraga-Keweenaw, Menominee, Ontonagon

Fourteenth District—Lenawee, Livingston, Monroe, Washtenaw

Fifteenth District—Macomb, Oakland

Sixteenth District—Wayne

Seventeenth District—Wayne

Eighteenth District—Wayne

CHAPTER 11—STANDING COMMITTEES

Section 1. The following Standing Committees shall be appointed by the President with the advice of The Council:

(a) Committee on Postgraduate Medical Education

(b) Committee on Preventive Medicine and its Sub-Committees

(c) Committee on Public Relations and its Sub-Committees

(d) Committee on Ethics

(e) Committee on Legal Affairs

(f) Committee on Mediation

Sec. 2. The Committee on Postgraduate Medical Education shall consist of a Chairman and twelve members, four of whom shall be appointed each year to serve for a three-year term.

The duty of this committee shall be to supervise for the

Michigan State Medical Society all postgraduate medical training in the State and, with the approval of the Executive Committee of The Council, make any changes. additions or discontinuances of present programs and initiate such new programs as they deem advisable.

Sec. 3. Committee on Preventive Medicine shall consist of its Chairman, the State Health Commissioner, and Chairmen of the following committees:

Committee on Rheumatic Fever Control

Committee on Maternal Health

Committee on Venereal Disease Control

Committee on Tuberculosis Control

Committee on Industrial Health

Committee on Mental Health

Committee on Child Welfare

Committee on Geriatrics

Committee on Postgraduate Medical Education

Such other committees as may, from time to time, be appointed to study and develop programs dealing with specific diseases.

The duty of this committee shall be to collect, analyze and distribute information on preventive medicine, and to advise medical and other groups or individuals concerning problems in preventive medicine and public health.

Sec. 4. The Committee on Public Relations shall be appointed by the President. It shall be the duty of this committee: (a) to integrate and publicize all approved plans and projects emanating from The Council, the Executive Committee, and other Standing and Special Committees of the Michigan State Medical Society; (b) to consider all plans and projects, and make suggestions and recommendations for improving or changing such plans for integration and publicizing; (c) to develop further plans for better physician-public contacts. The President shall appoint such Sub-Committees of this committee as are required in the execution of its work.

Sec. 5. The Committee on Ethics shall consist of five members including the chairman, appointed by the President with the advice of The Council, each member to serve for a four-year term so staggered that not more than two members are selected annually, and so that no member shall serve more than two consecutive terms. In case a vacancy occurs before the expiration of a member's term, the President shall appoint a successor to serve the unexpired portion of the term.

The Committee shall render advisory opinions on questions of ethics submitted to it by The Council.

Sec. 6. The Committee on Legal Affairs shall consist of a Chairman, the President-Elect of this State Medical Society and the Chairman of The Council of this State Medical Society and members to be appointed by the President.

The Committee on Legal Affairs shall utilize every organized influence of the profession for the promoting of such legislation as will be for the best interests of the public's health and that of scientific medicine. It shall work under the direction of the House of Delegates or The Council when the House of Delegates is not in session. No bill or proposed law or amendment shall be delivered to any member of The Michigan State Legislature for introduction in the name of this State Society or by any of its committees until such proposed legislation shall have been endorsed and approved by The Council. (Provided this latter authority may be delegated to the Executive Committee of The Council by The Council.)

It shall submit an annual report with recommendations to the House of Delegates.

Sec. 7. The Committee on Mediation shall be comprised of not more than seven members appointed by the president with the advice of The Council for terms so fixed that no more than three of them expire during the same year. It shall be the function of the committee (a) to receive, hear, examine, investigate and consider written complaints affecting substantial segments of the public arising from the relationship of the medical profession with such segments of the public of this state; (b) to reconcile differences between the profession and the affected segments of the public by means of persuasion and explanation; and (c) to propose and suggest rules of appropriate procedures for use by mediation committees of component county societies.

CHAPTER 12—OFFICERS

Section 1. Officers shall be installed at the General Meeting at which the reports of the House of Delegates are received. They shall serve until the next Annual Session, provided that Councilors shall serve for five years, and provided further that not more than four Councilor terms shall expire normally at any Annual Session; provided further that Delegates to the American Medical Association shall serve for two years; provided further that not more than four Delegates to the American Medical Association shall be elected in any one year.

Sec. 2. Officers shall serve until their successors are elected and inducted into office.

Sec. 3. At the Annual Session of this State Society, next following his election. The President-Elect shall be installed into and assume the office of the President. He shall serve until his successor takes office. The assumption of office shall occur in a General Meeting of the Society as a whole, at which the report of the House of Delegates is received. If no General Meeting is held at the Annual Session, the induction into office of the Incoming President and the newly elected officers and representative officials shall be in the last meeting of the Annual Session of the House of Delegates.

Sec. 4. The President shall preside at the General Meeting of the Society at which the reports of the House of Delegates are received, and shall fill vacancies in office and committees with the advice of The Council, unless otherwise provided for; he shall appoint the members of each committee not otherwise provided for; he shall deliver the President's address; he shall have a voice in the deliberations of the House of Delegates and he shall be an ex-officio member of The Council with the right to vote.

Sec. 5. The President-Elect shall be a member of The Council and the Executive Committee of The Council ex officio, and shall have the right to vote, and shall act for the President in his absence or disability. If the office of President shall become vacant, the President-Elect shall succeed to the presidency. If the office of President shall again become vacant, The Council, at a Special Session, shall elect a President for the unexpired term.

Sec. 6. The Treasurer shall be the custodian of all the invested funds and the securities of the Society. He

shall be accountable through The Council to the Society. The Council shall cause an annual audit of his accounts to be made. He shall be bonded in amount considered sufficient by The Council, the bond to be paid from the funds of the Michigan State Medical Society.

Sec. 7. The Secretary shall be an active member of the Michigan State Medical Society and shall be paid a salary to be determined by The Council. He shall be the recording officer of the House of Delegates, The Council, Scientific Assembly and Annual Session. He shall be bonded in amount considered sufficient by The Council, the bond to be paid from the funds of the Michigan State Medical Society. He shall also discharge the following duties:

(a) Collect all annual membership dues, assessments, donations and such other monies as may be due to the Society; keep membership records and issue membership certificates.

(b) He shall make all required reports to the American Medical Association. He shall make a report of the proceedings of the House of Delegates to the Annual Meeting of this Society.

(c) He shall deposit all funds received in an approved depository and disburse them upon order of The Council. The Council may delegate the authority for disbursing funds to the Executive Committee of The Council. The Council shall cause an annual audit of his accounts by a certified public accountant. He shall render a report to The Council reviewing the Society's activities and imparting recommendations for the advancement of the Society's interests at each meeting of The Council.

(d) Under the direction of The Council and with the advice of the Editor, he shall be the business manager of THE JOURNAL of the Michigan State Medical Society.

(e) He shall superintend all arrangements for the holding of each meeting in compliance with the Constitution and Bylaws and instructions of The Council or its Executive Committee.

(f) He shall send out all official notices of meetings, committee appointments, certificates of election to office and special duties of committees.

(g) He shall receive and transmit to the House of Delegates and to The Council each committee and officer's annual report.

(h) He shall institute and correlate each new activity under the supervision of The Council or its Executive Committee, and shall work on component County Society integration and furnish information to the public concerning health matters as directed by the President and The Council.

Sec. 8. There shall be an Executive Director, not necessarily a Doctor of Medicine or a member of the Michigan State Medical Society, who shall be appointed by The Council at its Annual Meeting and shall be remunerated by a salary which shall be fixed by The Council.

The Secretary shall, with the approval of The Council, assign duties to the Executive Director as he deems advisable.

Sec. 9. The Speaker of the House of Delegates shall preside at sessions of the House of Delegates. He shall, with the approval of the President, appoint all committees created by the House of Delegates, unless otherwise provided, and shall perform such duties as custom and parliamentary usage require. He shall be a member of The Council and of its Executive Committee with the power to vote.

Sec. 10. The Vice Speaker shall assume the Speaker's duties in the Speaker's absence in the House of Delegates and such other times as the House of Delegates or The Council shall determine.

CHAPTER 13—REFERENDUM

Section 1. At any General or Special Session of this State Society as a whole, as when it meets in General Session, it may by a two-thirds vote order a general referendum upon any question pertinent to the purposes and objects of the Michigan State Medical Society, organized medicine, or health of the public; provided, however, that a quorum at such General or Special Meeting shall consist of 300 members of the Michigan State Medical Society who are in good standing.

Sec. 2. The House of Delegates, by a majority vote may submit any question pertinent to the community and organized medicine to the membership of the Society for its vote, such vote to be taken by County Societies and certified by their secretaries to the State Society Secretary. Two-thirds of the vote cast shall be required to carry the question.

CHAPTER 14—SEAL

Section 1. The Society shall have a common SEAL. The power to change or renew the seal shall rest with The Council.

CHAPTER 15—EMERGENCY

Section 1. When prompt speech and action are imperative, authority to speak and act in the name of this State Society is vested in The Council or the Executive Committee of The Council of this State Society.

CHAPTER 16—DUES

Section 1. The Secretary of each component County Society shall collect and forward the dues and assessments to the Secretary of the Michigan State Medical Society on or before April first of each year.

Sec. 2. Any member in arrears after May 15 of each official year shall stand suspended until his name is properly recorded and his dues and assessments for the current year properly remitted, unless his name is to be submitted for election to one of the special memberships listed in Chapter 5 at the next succeeding Annual Session of the House of Delegates.

Sec. 3. Any component County Society which fails to make the reports required at least thirty days before the Annual Session of this State Society shall be held suspended and none of its members or Delegates shall be permitted to participate in any of the proceedings of the Society or of the House of Delegates.

Sec. 4. During the first year of practice a doctor of medicine who is accepted by a component county society with a reduction in dues shall be eligible for membership in the Michigan State Medical Society by the payment of one-third of the established dues schedule and that, if so accepted, he shall be eligible for a reduction to half of the State Society's dues schedule for the second year of membership; thereafter, he shall be subject to the full fee schedule for dues. This in no way exempts any member from a properly constituted assessment.

CHAPTER 17—ELECTION—COMPONENT COUNTY SOCIETIES

Section 1. At the Annual Meeting of each component County Society or at a designated meeting of which ample notice has been given, each component County Society shall elect Delegates and Alternate Delegates in conformity with the provisions of this Constitution and Bylaws to represent the component County Society in the House of Delegates of this State Society. The Secretary of the component County Society shall immediately send a list of its Delegates and Alternate Delegates to the Secretary of this State Society.

A Delegate, or in his absence, the Alternate Delegate, becomes a member of the House of Delegates when properly registered and seated at the Annual or Special Session following his election by the component County Society.

CHAPTER 18—DEFINITION OF SESSION AND MEETING

Section 1. A session shall mean all meetings at any one call.

Sec. 2. A meeting shall mean each separate convention at any one session.

CHAPTER 19—AMENDMENTS

Section 1. These Bylaws may be amended by a majority vote of the Delegates seated, after the proposed amendment is laid on the table for one meeting of the House of Delegates. These Bylaws become effective immediately upon adoption.

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MICHIGAN
STATE MEDICAL SOCIETY

January, 1960
Volume 59
Number 1

Roster of Committee Personnel, 1959-60

Committees of the House of Delegates

Committees of the Society

Committees of The Council

(This number is composed of three sections, of which this is Section 3)

Michigan State Medical Society

OFFICERS OF THE SOCIETY

1959-1960

President.....MILTON A. DARLING, M.D.....Detroit
President-Elect.....K. H. JOHNSON, M.D.....Lansing
Secretary.....D. BRUCE WILEY, M.D.....Utica
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Vice Speaker.....H. F. FALLS, M.D.....Ann Arbor

THE COUNCIL

A. E. SCHILLER, M.D., *Chairman,* Detroit
T. P. WICKLIFFE, M.D., *Vice Chairman,* Calumet
D. BRUCE WILEY, M.D., *Secretary,* Utica

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
WM. A. SCOTT, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LEFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M.D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1963
B. M. HARRIS, M.D.	14th	Ypsilanti	1964
R. J. MASON, M.D.	15th	Birmingham	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1964

MILTON A. DARLING, M.D.	*President*	Detroit
K. H. JOHNSON, M.D.	*President-Elect*	Lansing
J. J. LIGHTBODY, M.D.	*Speaker*	Detroit
H. F. FALLS, M.D.	*Vice Speaker*	Ann Arbor
D. BRUCE WILEY, M.D.	*Secretary*	Utica
W. A. HYLAND, M.D.	*Treasurer*	Grand Rapids
G. B. SALTONSTALL, M.D.	*Past President*	Charlevoix

EXECUTIVE COMMITTEE OF THE COUNCIL

A. E. SCHILLER, M.D.....Chairman
T. P. WICKLIFFE, M.D.....Vice Chairman
W. M. LEFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
O. B. McGILLICUDDY, M.D.....Chairman, Finance Committee
J. J. LIGHTBODY, M.D.....Speaker
H. F. FALLS, M.D.....Vice Speaker
MILTON A. DARLING, M.D.....President
K. H. JOHNSON, M.D.....President-Elect
D. BRUCE WILEY, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology

Alice E. Palmer, M.D.....Detroit
Chairman
Jack N. Grekin, M.D.....Detroit
Secretary

Gastroenterology and Proctology

Lyle E. Heavner, M.D.....Grosse Pointe
Chairman
George T. Bradley, M.D.....Detroit
Secretary

General Practice

J. M. McGough, M.D.....Detroit
Chairman
Winslow G. Fox, M.D.....Ann Arbor
Secretary

Gynecology and Obstetrics

Warren R. Moore, M.D.....Detroit
Chairman
Charles M. Bell, M.D.....Grand Rapids
Secretary

Medicine

Bert M. Bullington, M.D.....Saginaw
Chairman
Hugh W. Henderson, M.D.....Detroit
Secretary

Nervous and Mental Diseases

S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine

William Jend, Jr., M.D.....Detroit
Chairman
John H. Ganschow, M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology

John E. Magielski, M.D.....Ann Arbor
Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Co-Chairman (Ophth.)
Vital E. Cortopassi, M.D.....Saginaw
Secretary
Paul Van Portfliet, M.D.....Grand Rapids
Co-Secretary

Pediatrics

H. T. Knobloch, M.D.....Bay City
Chairman
John L. Doyle, M.D.....Grand Rapids
Secretary

Public Health and Preventive Medicine

L. V. Burkett, M.D.....Flint
Chairman
Vlado A. Getting, M.D.....Ann Arbor
Secretary

Radiology, Pathology, Anesthesiology

Chairman (Anesthesiology) (To be selected)
Vice Chairman (Pathology) (To be selected)
Secretary (Radiology) (To be selected)

Surgery

Robert F. Berry, M.D.....Marquette
Chairman
Donald N. Sweeny, Jr., M.D.....Detroit
Secretary

Urology

William Bromme, M.D.....Detroit
Chairman
Harry E. Lichtwardt, M.D.....Birmingham
Secretary

DELEGATES TO A. M. A.

Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Creek	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D, Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

*To fill unexpired term of R. W. Shook, M.D., deceased.

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